

# Board of Education Meeting

Wednesday, March 5, 2025 7:00 PM

BOE Auditorium and via Zoom Meeting Platform, 129 Church Street, Bristol, CT 06010

1. **CALL TO ORDER/ PLEDGE OF ALLEGIANCE/MOMENT OF SILENCE**

2. **APPROVAL OF MINUTES**

3. **COMMITTEE REPORTS**

4. **STUDENT REPRESENTATIVE REPORTS**

5. **CHAIR REPORT**

6. **SUPERINTENDENT REPORT**

7. **CONSENT AGENDA**

7.1. PERSONNEL

7.1.a. Teacher Resignation

7.1.b. New Teacher Hires

8. **PUBLIC COMMENT**

9. **DELIBERATED ITEMS/DISTRICT LEADERSHIP TEAM REPORTS**

9.1. Healthy Foods Certification for the 2025-2026 School Year

9.2. Preliminary Calendars for the 2025-2026 and 2026-2027 School Years (Second Presentation)

9.3. Energy Efficiency Project

9.4. Pupil Personnel Services Report

10. **CURRICULUM REVISION**

10.1. Introduction to Journalism Curriculum Revision

10.2. K-5 Social Studies Curriculum Revision

10.3. Precalculus (Academic) Curriculum Revision

11. **TEXTBOOK ADOPTION**

11.1. Precalculus (Academic) Textbook Adoption (First Reading)

12. **NEW BUSINESS**

13. **INFORMATION/LIAISON REPORTS**

14. **ADJOURNMENT**

The minutes presented within this document are a summary of the discussion that took place at the Budget Workshop. To view the meeting in its entirety please go to: [February 4, 2025 Budget Workshop Recording](#)

**BRISTOL BOARD OF EDUCATION**  
**BUDGET WORKSHOP MEETING MINUTES**  
**Tuesday, February 4, 2025**

A Budget Workshop of the Bristol Board of Education was held on Tuesday, February 4, 2025 from 6:00 p.m. to 8:00 p.m. in the Board of Education Auditorium and via the Zoom meeting platform.

**PRESENT:** Commissioners: Russell Anderson, Jill Fitzsimons-Bula, Kristen Giantonio, Lorianne Osenkowski, Maria Simmons(virtual), Dante Tagariello, Jennifer Van Gorder and Chair Shelby Pons

**ALSO PRESENT:** Iris White, Acting Superintendent, Lynn Boisvert, Business Director, and Erick Rosengren, Council Liaison

**ABSENT:** Commissioner Eric Carlson

**Call to Order:**

Chair Pons called the workshop to order at 6:01 p.m. and asked the audience to stand for The Pledge of Allegiance.

**Budget Workshop #1 Q and A**

Central Office Administration opened the evening by responding to the questions that had been asked at the first budget workshop which was held on Saturday, January 25, 2025, and commissioner questions that had been received over the past two weeks. Some of the questions answered focused on academic performance metrics, an HQI institute presentation; reducing non-certified staff; accurate benefits reporting; staffing counts; insurance increases; salary to benefits ratio; tuitions for outplaced students; leases/rentals; costs and percentage of reimbursement; cost savings related to school start; transportation for housing insecure student; details regarding unspent grants; Special Education programs and funding explanations; legal fees increase; fiduciary review and oversight, custodial fees; field maintenance, enrollment numbers and conference fees.

**Budget Workshop #2 Presentation**

The administrative team presented the Grant Revenue Review, Alliance Grant Funded staff and grant entitlements.

Commissioners did not have any questions following the presentation, should they have any questions they can email the central office leadership. They will receive a copy of the slide presentation used this evening and it will also be available on the Board of Education's website.

**Adjournment**

With no other business before the committee, the meeting was adjourned. (7:04 p.m.)

Respectfully Submitted:



Susan Everett

Executive Assistant to the Board of Education

*The minutes presented within this document are a summary of the discussion that took place at the Board of Education meeting. To view the meeting in its entirety and hear full reports please click the following link: [February 5, 2025 - Regular Meeting Recording](#).*

**BRISTOL BOARD OF EDUCATION**  
**Bristol, Connecticut**  
**Wednesday, February 5, 2025 – 7:00 p.m.**  
**Regular Meeting Minutes**

The Bristol Board of Education regular meeting was held on Wednesday, February 5, 2025, at 7:00 p.m. in the Bristol Board of Education Auditorium located at 129 Church Street and via the Zoom Meeting Platform.

**PRESENT:** Commissioners: Russell Anderson, Eric Carlson, Jill Fitzsimons-Bula, Kristen Giantonio, Lorianne Osenkowski, Maria Simmons, Dante Tagariello, Jennifer Van Gorder and Chair Shelby Pons

**ALSO PRESENT:** Iris White, Acting Superintendent, Lynn Boisvert, Business Director, and Erick Rosengren, Council Liaison

Chair Pons called the meeting to order at 7:04 p.m. and asked the audience to stand for the Pledge of Allegiance.

**APPROVAL OF MINUTES**

**January 8, 2025 - Regular Meeting Minutes**

The Board of Education voted to approve the January 8, 2025, Regular Meeting Minutes as written.

Motion made by Dante Tagariello, and seconded by Jennifer Van Gorder. Passed Unanimously.

**January 25, 2025 – Budget Workshop Meeting Minutes**

The Board of Education voted to approve the January 25, 2025, Budget Workshop Meeting Minutes as written.

Motion made by Dante Tagariello, and seconded by Eric Carlson. Passed Unanimously.

Commissioners Giantonio, Osenkowski, and Fitzsimons-Bula Abstained.

**January 29, 2025 – Special Meeting Minutes**

Commissioner Tagariello asked that the minutes be amended to reflect that he was absent from the meeting. Chair Pons called for a motion to approve the amended minutes.

The Board of Education voted to approve the January 29, 2025, Special Meeting Minutes with the amendment.

Motion made by Dante Tagariello, and seconded by Eric Carlson. Passed Unanimously.

Commissioners Giantonio and Tagariello Abstained.

**CHAIR REPORT**

Chair Pons presented the monthly Chair Report. Click the following link to read the full report.

[Monthly Chair Report](#)

**COMMITTEE REPORTS**

**Policy Committee**

Commissioner Fitzsimons-Bula reported that the Policy Committee met on January 20th. Items that were discussed were the 25-26 Policy Committee meeting dates, Title IX policy, armed Security Guards, and a discussion regarding handheld security wands. Policy 2141 was tabled and moved to their upcoming meeting, which is scheduled for February 26th. Commissioner Fitzsimons-Bula added that a Special Policy committee

### **Policy Committee – cont'd**

meeting was held and they discussed the use of handheld wands and the policy related to that which she will be adding, under New Business this evening.

### **Student Achievement Committee**

Commissioner Fitzsimons-Bula reported that the committee met on January 15th. The committee discussed post-secondary readiness enrollment. They reviewed two curricula that will appear later on tonight's agenda; Digital Art and Design and Middle School Art Grades 6 through 8. The next Student Achievement Committee meeting is scheduled for February 19th.

### **School Family and Community Partnerships**

Commissioner Simmons reported that the committee met on January 22nd. The committee activated well-being as they do at every meeting and they approved the 25-26 meeting schedule. The committee talked about the relational leadership intensive that is coming up in Santa Fe, New Mexico. Two school staff members Erika Treannie and Kristi Trelly will be participating. The final discussion item was the School, Family and Community Partnerships, Goal and Action Plan Report. Dr. Ryan Broderick presented some of the baseline data which spoke to what we are doing as a school district. Some of the data that we've already collected and how we're going to move the work forward to serve our school community in the best way we can.

### **Safety Committee**

Commissioner Osenkowski reported that the committee met on January 29th. Mr. Steve Cabelus, Director of School Safety provided safety updates and information for the committee. Some of the information shared included a safety audit at Bristol Eastern and Bristol Central; upgrading the emergency alert system; upgrading existing older analog cameras with newer technology as well as adding cameras in other areas of the schools; school security staffing update; and information on a new notification system. High School administration from Bristol Eastern and Bristol Central were present to join the discussion regarding handheld security wands. This item was also discussed earlier this evening at a Special Policy Committee meeting. The next School Safety meeting will be held May 14th.

## **STUDENT REPRESENTATIVE REPORTS**

### **Bristol Eastern**

Bristol Eastern, Junior Representative Paige Anash, presented the Bristol Eastern monthly Student Representative report. Highlights from her report included: during midterms student council, provided therapy dogs and snacks during the period in between exams, second semester is off to good start, course selections have begun; a new fire alarm system is now completely installed; winter sports are coming to an end; spring sports will kick off in March; wrestler Luke Vienz recently got his 100th win; Music in our schools starts in March; a coffee house will be held on March 7<sup>th</sup>, students, teachers, and family members will be able to sign up and perform; a concert with the elementary and middle schoolers will be held March 12th; mental health awareness month is coming up, on March 18<sup>th</sup> a guest speaker will be at BE to explain the importance of mental health and the implications of ignoring your mental health; an upcoming community college open house event; Student Council has set up committees for several activities such as Teacher Appreciation and Earth Day; prom seasons is underway, the Junior Prom will be held on May 10th at Hawks Landing, in Southington, while Senior Prom will be held on May 24th at the Aqua Turf and the United Way has is planning their annual prom for the senior citizens at the Bristol Senior Center, the year's theme is rock and roll.

### **SUPERINTENDENT REPORT**

Ms. Iris White presented the monthly Superintendent Report. Ms. White shared that Schools and offices would be closed tomorrow, February 6 due to inclement weather; she introduced two staff members Mrs. Michaela Pascucci Wallace, as the new Supervisor of Pupil Personnel Services and Erica Coleman as the new Principal of Ivy Drive. Mrs. Pascucci Wallace and Mrs. Coleman both addressed the board briefly about their appointments.

Bristol Central, Junior Representative Amelia Brown joined the meeting and provided her monthly student representative report.

## **STUDENT REPRESENTATIVE REPORTS cont'd**

### **Bristol Central**

Bristol Central, Junior Representative Amelia Brown, presented the Bristol Central monthly Student Representative report. Highlights from her report included: settling back down after our stressful midterms; BC is starting a school news report called Ramley Report, and we have many students signed up for various factors of factions, from video recording to editing and being an actual reporter in front of the camera; 30 Bristol Central sophomores, participated in focus groups conducted by Partners for Educational Leadership, sharing their voices and experiences in contributing to future school improvement plans; Culture Club has secured some restaurants to donate food to culture night, and various students are also volunteering to have their parents cook food. Culture Night will be held on May 17th. The band is getting ready to start rehearsing for their May concert; BCHS Stage will be performing Momma Mia; the basketball team is currently 7 and 9; Head Coach Barrett got his 200<sup>th</sup> win; Kamaria Bowen was nominated for player of the week for basketball, and Nicole Reimer scored a career-high 42 points in a win over Farmington; the cheer team placed 5<sup>th</sup> at the CT Center Classic competition two weeks ago and they will compete this week in Shelton at the Heart of a Champ competition.

### **SUPERINTENDENT REPORT**

Ms. White continued the Superintendent's Report. Ms. White shared that she notified the Board earlier today and sent a message to Edgewood Pre-K Academy families regarding roof leaks, and issues with the roof. Out of an abundance of caution and based on recommendations from the facilities department. We decided to close the school for a few days, beginning at the end of the day today until further notice. This will allow them time to review everything and take care of any issues there. We will have additional information as it becomes available and of course, she will keep the commissioners updated on any progress. Ms. White also shared information regarding redistricting, communications with the community, and, ParentSquare participation.

### **CONSENT AGENDA**

Chair Pons called for a motion to approve the Consent Agenda which includes Items 7.1.a through 7.2.a.

Motion made by Dante Tagariello, and seconded by Kristen Giantonio Passed Unanimously.

#### **7.1. PERSONNEL**

##### **7.1.a. New Administrative Hire**

Coleman, Erica – Principal – ID – Effective February 6, 2025

The Board of Education voted to accept the Teacher Resignations as presented.

Motion made by Dante Tagariello, and seconded by Kristen Giantonio. Passed Unanimously

##### **7.1.b. New Teacher Hire**

McCane, Meagan - CW @ WB - Special Education Teacher - effective February 6, 2025

The Board of Education voted to approve the New Teacher Hire as presented.

Motion made by Dante Tagariello, and seconded by Kristen Giantonio. Passed Unanimously.

##### **7.1.c. A-2 Hires**

Pagan, Yahiry - BCHS - Band and Auxiliary Unit Instructor (Flags and Majorettes - Fall and Spring) - effective August 29, 2024

MacDonald, Theresa - BAIMS - Musical - effective January 29, 2025

The Board of Education voted to approve the A-2 Hires as presented.

Motion made by Dante Tagariello, and seconded by Kristen Giantonio. Passed Unanimously.

**7.1.d. A-3 Resignation**

Currao, Merriah - EPH - Science Co-Leader - effective November 29, 2024

The Board of Education voted to approve the A-3 Resignation as presented.

Motion made by Dante Tagariello, and seconded by Kristen Giantonio. Passed Unanimously

**7.1.e. A-3 Hire**

Bouchard, Kelly - EPH - Science Co-Leader - effective December 2, 2024

The Board of Education voted to approve the A-3 Hire as presented.

Motion made by Dante Tagariello, and seconded by Kristen Giantonio. Passed Unanimously

**7.1.f. Teacher Leave of Absence Requests**

Morfis, John - BEHS - Art Teacher - effective March 20, 2025 through the end of the 2024-2025 school year.

Tramontanis, Brittany - WB - Gr. 3 Teacher - effective June 4, 2025 through the end of the 2024-2025 school year.

The Board of Education voted to approve the Teacher Leave of Absence Requests as presented.

Motion made by Dante Tagariello, and seconded by Kristen Giantonio. Passed Unanimously

**7.2. GRANTS**

**7.2.a. BAIMS - Every Child Art Experience Grant**

The Board of Education voted to approve the BAIMS - Every Child Art Experience Grant as presented.

Motion made by Dante Tagariello, and seconded by Kristen Giantonio. Passed Unanimously.

**8. PUBLIC COMMENT**

Public Comment received before the meeting were available at the Commissioner's seats. Chair Pons read the Public Comment rules to the audience.

**In-Person Public Comment**

1. Jane Murdock – 400 Shrub Road – Addressed the Board regarding the budget and Veteran’s Day.
2. Scott Fields – 7 South Down Road – Addressed the Board regarding the Superintendent Search, Board conduct, and leadership.
3. Nyasia Delgado – 32 Haviland Street – Addressed the Board regarding the waiver process.

**Online Public Comment**

1. Jerry Rafaniello – 103 Windham Road – Addressed the Board regarding the budget.

**Submitted Public Comment**

1. Emily Bailey – 21 Tiffany Lane – Addressed the Board regarding Veteran’s Day.

**DELIBERATED ITEMS/DISTRICT LEADERSHIP TEAM REPORTS**

**January Enrollment Count for the 2024-2025 School Year**

Dr. Kimberly Culkin presented the January Enrollment Count for the 2024-2025 School Year. Commissioners were provided a copy of the report prior to the meeting. The report is a comparison to the January 5, 2024 report. At the time that the January 1, 2025 report was prepared, we had 7,789 students enrolled in Bristol public schools, 15 of whom attended Bristol Tech, and another 278 students attending magnet schools or public school programs in districts other than BPS, but for whom BPS is responsible. Additionally, 123 Bristol

## **January Enrollment Count for the 2024-2025 School Year – Cont'd**

students attended schools and private out-of-district programs. Dr. Culkin shared the January 1 student enrollment breakdown for the commissioners.

## **Preliminary Calendars for the 2025-2026 and 2026-2027 School Years (First Presentation)**

Iris White presented the First Presentation of the Preliminary Calendars for the 2025-2026 and 2026-2027. A corrected 26-27 school year calendar was added to Boardbook for commissioner review. A correction was made to December and the last day of school.

Ms. White shared feedback from staff regarding the multiple holidays the district celebrates which can cause some interruption to student learning as well as extend us further into June, especially when you add in snow days. Some staff also thought Veteran's Day might be an opportunity if we brought the students back in. This would allow for additional conversations about the sacrifices of our veterans and what it means. Ms. White had an opportunity to meet with representatives from the Bristol Veterans Council about Veteran's Day being a school day and wanting to work closely with the district and the schools about ideas and different activities that could be done if it was during the school day. They are very willing to come in and volunteer and assist.

A lengthy discussion followed. In the intervening month, a ParentSquare survey would be sent to staff and families regarding Veteran's Day. This is the first presentation of the calendars they will be on the March meeting agenda for a vote.

## **Fall Fine Arts Report**

Ken Bagley presented the Fall Fine Arts Report. He will present the Spring Fine Arts Report in June.

## **CURRICULUM REVISION**

### **6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> Grade Art Curriculum**

Ken Bagley presented the 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> Grade Art Curriculum Revision.

The Board of Education voted to approve the 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> Grade Art Curriculum as presented.

Motion made by Dante Tagariello, and seconded by Jennifer Van Gorder. Passed Unanimously

### **Digital Art and Design Curriculum**

Ken Bagley presented the Digital Art and Design Curriculum.

The Board of Education voted to approve the Digital Art and Design Curriculum as presented.

Motion made by Dante Tagariello, and seconded by Jennifer Van Gorder. Passed Unanimously

## **NEW BUSINESS**

### **Discussion and Possible Action regarding Policy and Regulation 5145.123 – Search and Seizure - Use of Metal Detectors**

Commissioner Fitzsimons-Bula presented the Discussion and Possible Action regarding Policy and Regulation 5145.123 – Search and Seizure - Use of Metal Detectors. She provided background information as to how we got here this evening. We have discussed and moved it out of policy tonight to the full board for discussion and possible action with some corrections and additions that all commissioners have received.

The Board of Education voted to approve Policy and Regulation 5145.123 – Search and Seizure - Use of Metal Detectors as presented.

Motion made by Dante Tagariello, and seconded by Jennifer Van Gorder. Passed Unanimously

Following a lengthy discussion, a motion was made to send Policy 5145 back to the committee.

Motion made by Dante Tagariello, and seconded by Kristen Giantonio. Passed Unanimously.

**INFORMATION/LIAISON REPORTS**

Marie Simmons – Provided a liaison report for South Side School and Bristol Eastern High School.

Jennifer Van Gorder – Provided a report for Hubbell School.

Kristen Giantonio – Provided an information report regarding the State of the Student Conference recently held at Wesleyan University.

**ADJOURNMENT**

There being no other business to come before the Board, the meeting should be adjourned. (9:21 p.m.)

Respectfully Submitted

*Susan P. Everett*

Susan P. Everett

Executive Secretary to the Board of Education

DRAFT

*The minutes presented within this document are a summary of the discussion that took place at the Special Board of Education meeting. To view the meeting in its entirety please click the following link: [February 12, 2025 - Special Meeting Recording](#).*

**BRISTOL BOARD OF EDUCATION**  
**Bristol, Connecticut**  
**Wednesday, February 12, 2025 – 7:00 p.m.**  
**Special Meeting Minutes**

A Special Bristol Board of Education meeting was held on Wednesday, February 12, 2025, at 7:00 p.m. in the Board of Education Auditorium, located at 129 Church Street, Bristol, Connecticut, and via the Zoom meeting platform.

**PRESENT:** Commissioners: Russell Anderson, Eric Carlson, Jill Fitzsimons-Bula (virtual), Kristen Giantonio, Lorianne Osenkowski, Maria Simmons, Dante Tagariello, Jennifer Van Gorder and Chair Shelby Pons

**ALSO PRESENT:** Lynn Boisvert, Dr. Kimberly Culkin, Carly Fortin, Amy Martino, and Acting Superintendent, Iris White

**1. Call to Order and Pledge of Allegiance**

Chair Pons called the Special Meeting to Order at 7:02 p.m. The audience stood for the Pledge of Allegiance.

**2. Discussion and Possible Action on Policy P5145.123(a), Search and Seizure Use of Metal Detectors**

Jill Fitzsimons-Bula recapped what had taken place at the Special Policy & Safety meeting earlier this evening. They discussed two policies 5145.123 and 5145.12 and made some additional modifications to that policy after seeking feedback from the board attorney that we wanted to present to the full board for review, discussion, and possible action.

Jill Fitzsimons-Bula called for a motion to move Policy 5145.123 and Policy 5145.12 to the full Board for approval.

The motion was made by Jill Fitzsimons-Bula, and seconded by Russell Anderson. Carried Unanimously.

Following discussion, it was decided to withdraw the original motion.

The original motion was withdrawn by Jill Fitzsimons-Bula.

**3. Discussion and Possible Action Regarding the Appointment of an Executive Search Firm for the Permanent Superintendent Position**

Chair Pons called for a motion to approve CES as the firm to conduct the executive search for the Permanent Superintendent Position.

The motion was made by Dante Tagariello and seconded by Kristen Giantonio.

Discussion followed regarding the process, CES granting individual interviews to those who would like to be a part of the process, CES search is a confidential process, feedback of the firm selection process, and engaging the community regarding qualities for a Superintendent.

The motion **PASSED** with nine (9) commissioners (Anderson, Carlson, Fitzsimons-Bula, Giantonio, Osenkowski, Simmons, Tagariello, Van Gorder, and Pons).

#### 4. Adjournment

There being no other business, the meeting should be adjourned. (7:25 p.m.)

Respectfully Submitted,



Recording Secretary  
Bristol Board of Education

DRAFT

*The minutes presented within this document, summarize the discussion of the Special Board of Education meeting. To view the meeting in its entirety and hear full reports, please click the following link: [February 26, 2025 - Special Meeting Recording](#).*

**BRISTOL BOARD OF EDUCATION**  
**Bristol, Connecticut**  
**Wednesday, February 26, 2025 – 5:00 p.m.**  
**Special Meeting Minutes**

A Special Bristol Board of Education meeting was held on Wednesday, February 26, 2025, at 5:00 p.m. in the Board of Education Auditorium, located at 129 Church Street, Bristol, Connecticut, and via the Zoom meeting platform.

**PRESENT:** Commissioners: Eric Carlson (virtual), Jill Fitzsimons-Bula (virtual)(5:25 in- person), Kristen Giantonio, Lorianne Osenkowski, Maria Simmons, Dante Tagariello (virtual), Jennifer Van Gorder and Chair Shelby Pons

**ABSENT:** Commissioner Russell Anderson

**ALSO PRESENT:** Dr. Kimberly Culkin, Carly Fortin, Amy Martino, Iris White, candidate Mary Hawk

**1. Call to Order and Pledge of Allegiance**

Chair Pons called the Special Meeting to order at 5:00 p.m. The audience stood for the Pledge of Allegiance.

**2. Discussion and Possible Action Item of Cabe's Model Policy P5145.123a & Chief of Police Morello's edits and the four (4) subsequent items (Items 3-6)**

Vice Chair Simmons spoke in the absence of Commissioner Fitzsimons-Bula. She called for a motion to table Item #2 and the next four items based on discussion/revisions from the Board's attorney.

The motion was made by Maria Simmons, seconded by Dante Tagariello.

Discussion followed regarding the discussion/revisions that were submitted by the attorney

The motion **PASSED** with seven (7) commissioners (Fitzsimons-Bula, Giantonio, Osenkowski, Pons, Simmons Tagariello, and Van Gorder IN FAVOR of the motion and one (1) Commissioner (Carlson) OPPOSED.

**7. Discussion and Possible Action on the Appointment of an Acting Deputy Superintendent**

Chair Pons called for a motion on the Discussion and Possible Action on the Appointment of an Acting Deputy Superintendent.

The motion was made by Maria Simmons, seconded by Jennifer Van Gorder.

Discussion followed regarding the disruption to a building, the amount of the contract/MOA, the timing of the appointment, financial implications, the need to fill the position, the timeframe of the appointment, the hiring process before this evening's appointment, qualifications and being grateful that Mrs. Hawk has stepped up to assist the Superintendent.

The motion **PASSED** with seven (7) commissioners (Carlson, Fitzsimons-Bula, Osenkowski, Pons, Simmons, Tagariello, and Van Gorder IN FAVOR of the motion and one (1) Commissioner (Giantonio) OPPOSED.

Mrs. Hawk addressed the board briefly regarding the appointment.

Superintendent White read Mrs. Hawk's bio to the audience.

## 8. Adjournment

There being no other business, the meeting should be adjourned. (5:28 p.m.)

Respectfully Submitted,



Recording Secretary  
Bristol Board of Education

DRAFT

# Maria Perrotti

## EDUCATION

2017-2020 | Central Connecticut State University

*Bachelor of Science Degree in Secondary Education K-12 | Major in Spanish*

2021 | American College of Education

*M.Ed in Teaching English Learners K-12 |*

## EXPERIENCE

### **Classroom Educator**

*Spanish Tutor, Subject: Spanish Fall 2019-2020*

- Conducted tutoring for college students to help improve grades and achieve Spanish language fluency. Helped students learn to read, write and speak in the target language. Assisted students with conjugating verbs, sentence structures, and demonstrating typical conversation in the target language.
- Strategically designed lesson plans based on students' individual interests and needs in order to create a positive learning environment and increase student proficiency, as well as test scores and overall classroom productivity.
- Fostered student engagement and academic achievement through the use of innovative teaching methods and through fostering a committed positive learning environment.

### **Classroom Educator**

*Regional School District 17, Middle School, Subject: Spanish*

*Summer 2023- Present*

- Develop and execute the curriculum for Spanish II course for the 2023 to present at the middle school level
- Analyze growth patterns and track students' educational development through formal and informal assessments and reporting tools
- Record students' progress categorically in terms of strengths and areas of improvement, creating individualized strategies for academic achievement which were distributed in the form of progress reports.
- Conduct quarterly parent-teacher conferences to evaluate students' educational needs and adjust lesson plans accordingly
- Monitor and resolve issues between all parties in and outside of the classroom including students, guardians, departmental staff, etc.

*Cromwell Middle School, Cromwell, Ct*

*Spanish Teacher*

*September 2022, Spring 2023*

- Designed and ran World Language professional development
- Wrote, revised, and helped colleagues with developing and writing Common Core units for the district.
- Prepared and executed student-centered lessons for grades 6th, 7th, and 8th grade students in a heterogenous classroom environment.
- Worked collaboratively with other members of the Spanish Department to design assignments and assessments tools to be used in the classroom for varied age and ability levels.
- Assessed students' performance through quizzes and testing and provided one-on-one tutoring when necessary.
- Taught over 120 students concurrently while providing a high degree of education customization when required.

*Woodrow Wilson Middle School/ Beman Middle School, Middletown, CT*

*Spanish Teacher*

*August 2020, September 2022*

- Developed and executed the curriculum for Spanish I and Spanish II courses at the middle school level. Analyzed growth patterns and tracked students' educational development through formal and informal assessments and reporting tools.
- Recorded students' progress categorically in terms of the three modes of communication: interpretive, interpersonal and presentational distributed quarterly
- Monitored and resolved conflicts between all parties in and outside of the classroom including students, guardians, departmental staff, etc.
- Counseled students both one-on one, with parents and other faculty members to improve students' achievement and behavior in the classroom.
- Attended and actively participated in meeting and professional development such as: COLT, district PD, Faculty, Department, Data Team, and Equity Circle meetings.

### **Student Teacher**

*New Britain High School, Subject: Spanish Fall 2019 (Full-Time)*

- SPED (Introduction to educating learners with exceptionalities)
- Completed 102 hours of observation in Spanish 3, Spanish 4, and Spanish 5 classes.
- Designed units and lessons aligned with, and exceeding, common core state standards for middle school students, regular and honors.
- Demonstrated commitment to continued learning through active participation in professional development opportunities, staff, and departmental meetings.
- Established rapport with students from different cultural origins by creating a positive and respectful environment to encourage cross-cultural dialogue via communicative methods.

## **PROFESSIONAL ASSOCIATIONS/ACHIEVEMENTS**

### **Future Language Teacher's Honor Society**

*Committee Member, March 2020*

### **Award for Excellence in Language Society**

*Committee Member, March 2029*

### **Kappa Delta PI Honor Society**

*Committee Member, May 2019*

## **SKILLS**

- Bilingual in Spanish and English
- Proficient with Microsoft Office (Word, PowerPoint, Excel, etc.)
- Effective listening
- Patience
- Punctuality
- Positive learning process
- Curriculum writing
- Leadership
- Teamwork
- Time management

# Brian A. Stroh

## Special Education Teacher

To provide individualized education and inclusion for all students with a range of disabilities, promote positive peer interaction, collaborate with educators and professionals, and use data to inform instructional practices. To help each student reach their potential.

Implementation of behavioral intervention plan, I.E.P goals and objectives, lesson planning, transition services, inclusion, and dedication to help students with special needs succeed academically.

### Work History

2019 – 7 – Present Special Educational Paraprofessional Farmington School District Irving A. Robbins Farmington, CT

- Implementation of students I.E.P goals and objectives, behavior plan, inclusion, scaffold lessons for each student academically, and progress monitoring data collection, collaborating with teacher on program completion and develop new programs for students learning target.
- Collaboration of program development with SPED teacher, OTA, PT, SLP, and BCBA.
- Collaboration with general education teacher for scaffolding lesson plans.
- Instructed guided small group lessons with students of special needs using AAC devices for communication.
- Knowledge with text to speech software.

2019 – 1 – Present Extended Care and Learning Farmington School District Farmington, CT

- Supervise 1:1 para support to a student. Implement structured learning strategies and behavior implementation program in an after-school setting.

2016 – 3 – 2019 – 6 Paraeducator Wheeler Clinic, Northwest Village School Plainville, CT

- Implement lesson plan provided by special education teacher and scaffold lesson to student's academic needs, follow behavior plan, collect data for on-task behavior and completion throughout day.

### Education

2010 – 9 – 2014 – 5 B.S in Exercise Science and Health Promotion  
M.D in Special Education  
2021 – 9 Present Central Connecticut State University – New Britain, CT  
GPA: 3.80

Sept 2024 Oct 2024 Student Teaching K-5 Resource Room

### Certification

2023 – 07 Teaching Certification  
IN PROGRESS

### Contracts

Skills	
I.E.P Compliance	Excellent
Behavior Intervention	Very Good
Assessment	Good
Team Collaboration	Excellent
Teaching and Instruction	Very Good
Lesson Planning	Very Good
Educational Support	Excellent

Software	
AAC devices	Very Good

**Strength** – Can adapt to a lesson when teachers need to modify their approach to accommodate students to show academic success

**Weakness** – Can take a cautious approach to lesson planning but overtime will show professional growth and development.

### Affiliations

References Provided Upon Request

# 2025-2026 District Calendar



Teach and Learn with  
Passion and Purpose

AUGUST							2
S	M	T	W	T	F	S	
					1	2	
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	NTA	NTA	NTA	NTA	23	
24	TMD	PDD	PDD	28	29	30	
31							

SEPTEMBER							20
S	M	T	W	T	F	S	
	1	2	3	4	5	6	
7	8	9	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30					

OCTOBER							20
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5	6	7	8	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30	31		

NOVEMBER							16
S	M	T	W	T	F	S	
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16	17	18	19	20	21	22	
23	24	25	26	27	28	29	
30							

DECEMBER							17
S	M	T	W	T	F	S	
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7	8	9	10	11	12	13	
14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30	31				

JANUARY							19
S	M	T	W	T	F	S	
				1	2	3	
4	5	6	7	8	9	10	
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30	31	

EXPLANATION OF DATES:		
Aug.	19-22	New Teacher Academy
Aug.	25	Teacher Meeting Day
Aug.	26 & 27	Teacher Professional Development Days
Aug.	28	First Day of School
Sept.	1	Labor Day - No School
Sept.	23	Rosh Hashanah - No School
Oct.	2	Yom Kippur - No School
Oct.	13	Indigenous People/Columbus Day - No School
Oct.	20	Diwali - No School
Nov.	4	Prof Development Day/Election Day - No School
Nov.	11	Veterans Day - No School
Nov.	26	Thanksgiving Recess - Shortened Day
Nov.	27&28	Thanksgiving Recess - No School
Dec.	23	Holiday Recess - Shortened Day
Dec/Jan	24-1	Holiday Recess - No School
Jan.	1	New Years Day Observance - No School
Jan.	6	Three Kings Day - No School
Jan.	19	Martin Luther King Jr. Day - No School
Feb.	16	Presidents' Day - No School
Feb.	17	Vacation Day - No School
March	20	Eid al-Fitr - No School
April	3	Good Friday - No School
April	13-17	Spring Break - No School
May	25	Memorial Day - No School
June	16	Projected Last Day of School
June	19	Juneteenth

Parent Conference Days: Shortened Days		
Elem:	October 22,23,24	(Snow Date: Nov. 7)
	March 17,18,19	(Snow Date: April 1)
K-8:	October 22,23,24	(Snow Date: Nov. 7)
	March 17,18,19	(Snow Date: April 1)
MS:	October 21,22,23,24	(Snow Date: Nov. 7)
	March 18,19	(Snow Date: April 1)
HS:	October 15, 16, 17	(Snow Date: Nov. 7)
	March 5	(Snow Date: April 3)

Shortened Days Not Listed Above		
Elementary, K-8 and Middle School - Last 3 days of school		
High School - Midterms on the 88-91st school days;		
Final Exams - Last five days of school		

Emergency Days:		
Students must attend school 181 days. With no snow days the last day of school will be <b>June 16th</b> . Each snow day will advance the last day of school forward to no later than June 30.		

FEBRUARY							18
S	M	T	W	T	F	S	
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15	16	17	18	19	20	21	
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MARCH							21
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29	30	31					

APRIL							16
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26	27	28	29	30			

MAY							20
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17	18	19	20	21	22	23	
24	25	26	27	28	29	30	
31							

JUNE							12
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14	15	16	17	18	19	20	
21	22	23	24	25	26	27	
28	29	30					

Total Days of School: 181	
	No School
	Shortened Day

# 2026-2027 District Calendar



Teach and Learn with  
Passion and Purpose

AUGUST							3
S	M	T	W	T	F	S	
						1	
2	3	4	5	6	7	8	
9	10	11	12	13	14	15	
16	17	NTA	NTA	NTA	NTA	22	
23	TMD	PDD	PDD	27	28	29	
30	31						

SEPTEMBER							20
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27	28	29	30				

OCTOBER							21
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NOVEMBER							17
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29	30						

DECEMBER							17
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JANUARY							18
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17	18	19	20	21	22	23	
24	25	26	27	28	29	30	
31							

EXPLANATION OF DATES:		
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Oct.	12	Indigenous People/Columbus Day - No School
Nov.	3	Prof Development Day/Election Day - No School
Nov.	11	Veterans Day - No School
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Nov.	26 & 27	Thanksgiving Recess - No School
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Dec/Jan	24-1	Holiday Recess - No School
Jan.	1	New Years Day Observance - No School
Jan.	6	Three Kings Day - No School
Jan.	18	Martin Luther King Jr. Day - No School
Feb.	15	Presidents' Day - No School
Feb.	16	Vacation Day - No School
March	9	Eid al-Fitr - No School
March	26	Good Friday - No School
April	12 - 16	Spring Break - No School
May	31	Memorial Day - No School
June	11	Projected Last Day of School
June	18	Juneteenth - No School / Offices Closed

Parent Conference Days: Shortened Days		
Elem:	October 22, 22, 23	(Snow Date: Nov. 6)
	March 17, 18, 19	(Snow Date: April 1)
K-8:	October 21, 22, 23	(Snow Date: Nov. 6)
	March 17, 18, 19	(Snow Date: April 1)
MS:	October 20, 21, 22, 23	(Snow Date: Nov. 6)
	March 18, 19	(Snow Date: April 1)
HS:	October 13, 14, 15	(Snow Date: Nov. 6)
	March 4	(Snow Date: April 1)

Shortened Days Not Listed Above
Elementary, K-8 and Middle School - Last 3 days of school
High School - Midterms on the 88-91st school days;
Final Exams - Last five days of school

Emergency Days:
Students must attend school 181 days. With no snow days the last day of school will be <b>June 11th</b> . Each snow day will advance the last day of school forward to no later than June 30.

FEBRUARY							18
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28							

MARCH							21
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28	29	30	31				

APRIL							17
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25	26	27	28	29	30		

MAY							20
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16	17	18	19	20	21	22	
23	24	25	26	27	28	29	
30	31						

JUNE							8
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6	7	8	9	10	11	12	
13	14	15	16	17	18	19	
20	21	22	23	24	25	26	
27	28	29	30				

Total Days of School: 181	
No School	
Shortened Day - All	



**Resource**  
Lighting + Energy

# Energy Efficiency Project Proposal

**Bristol Public Schools**

129 Church Street | Bristol, CT 06010

**Resource Lighting & Energy**

291 McGowan Street | Fall River, MA 02723

# Table of Contents

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• About RLE .....	3
• Our Commitment .....	4
• Summary of Savings .....	5
• Sustainability .....	7
• Financing .....	8
• Savings Guarantee .....	9
• Proposal .....	9
• Spec Sheet .....	10





# About RLE



## We conserve energy to power the future.

RLE's mission is to provide turnkey, design-build energy efficiency solutions that enable our customers to save energy, cut costs and work towards a more sustainable future.



RLE is the trusted energy efficiency upgrade partner of Eversource, the top utility company in America.



## OUR CORE VALUES



### Partnership

As your company's partner, we adopt your goals as our goals. Your success is our success. We cater your project to fit your company's needs, and cooperate with your schedule to assure that the job is done efficiently and effectively.



### Reliability

We pride ourselves on providing clients with consistent, dependable service. You can rely on our team of insightful professionals to provide top-tier service.



### Sustainability

We are proud to provide services that are not only sustainable for your business' growth and success, but are also sustainable for the planet.





## TIME INVESTED

**No-Cost Energy Audit** 234.06 hours

**Data Analysis/Engineering** 380.6 hours

**Turnkey Proposal Development** 86.2 hours

**TOTAL 700.86 hours**



### **DATA COLLECTION.**

We audited and analyzed all equipment at your facility for no cost, so that we can accurately model your energy efficiency improvements.



### **DESIGN.**

We have a vision of how to upgrade your facility in a way that not only looks good, but also benefits you.



### **ENGINEERING.**

We developed a plan to properly install upgraded technology within your existing system.



### **MATERIAL SPECIFICATION.**

We have precisely selected what materials will work best for your space and application.



## WE'LL HANDLE IT

### **MATERIAL PROCUREMENT.**

We manage the logistics and handling of materials, including trash and recycling.

### **GENERAL CONTRACTING.**

We handle the hiring of electrical contractors, and project manage the job from cradle to grave.

### **CODE ENFORCEMENT.**

We adhere to all codes and obtain permitting.

### **FINANCING OF CONSTRUCTION.**

We assist you with the evaluation of potential financing options.

The RLE team makes energy efficiency upgrades simple. From audit to installation to project completion, we are committed to providing you with the best service.

# Summary of Savings



**Resource**  
Lighting + Energy

Our comprehensive energy efficiency upgrades include LED lighting, Lighting Controls replacements at all facilities. This project will generate an annual savings of **\$724,003** and does not include O&M savings which amounts to an additional **\$162,991** annually.

## COMPREHENSIVE ENERGY PROJECT

**4.80**

project payback (years)

**\$4,258,619**

total project investment  
\*after incentives

**\$724,003**

annual energy cost savings

**3,109,429**

annual kWh savings

see pg. 7 for a more  
detailed overview

# Summary of Savings



**2.089** Metric Tons of CO<sub>2</sub> Removed



**5,319,946** Miles Not Driven



**2,320,572** LBs of Coal Not Burned



**4,837** Barrels of Oil Removed



**Resource**  
Lighting + Energy

Bristol CT Public Schools	\$ Energy Savings	\$ O&M Savings	Turnkey Price	Incentive by Measure	Customer Cost	Payback by building
Bristol Central HS	\$ 105,219	\$ 28,183	\$ 903,734	\$ 208,580	\$ 695,154	5.21
Chippens Hill MS	\$ 106,192	\$ 24,402	\$ 785,544	\$ 175,222	\$ 610,322	4.73
Briston Eastern HS	\$ 103,283	\$ 26,133	\$ 825,190	\$ 205,404	\$ 619,785	4.67
Edgewood ES	\$ 44,403	\$ 9,780	\$ 310,743	\$ 73,095	\$ 237,648	4.58
Greene Hills ES	\$ 69,658	\$ 18,895	\$ 530,213	\$ 113,837	\$ 416,376	4.73
Hubbell ES	\$ 47,700	\$ 8,338	\$ 346,676	\$ 78,578	\$ 268,098	4.74
Ivy Drive ES	\$ 37,711	\$ 10,510	\$ 288,432	\$ 62,120	\$ 226,311	4.76
Mountain View ES	\$ 35,417	\$ 6,209	\$ 259,218	\$ 58,228	\$ 200,989	4.81
South Side ES	\$ 43,506	\$ 6,567	\$ 311,860	\$ 71,784	\$ 240,076	4.85
Stafford ES	\$ 51,508	\$ 7,708	\$ 374,939	\$ 84,974	\$ 289,965	4.80
West Bristol	\$ 79,404	\$ 16,266	\$ 584,958	\$ 131,064	\$ 453,894	4.74
<b>Northeast MS</b>	\$ -	\$ -	\$ -	\$ -	\$ -	
	724,003	162,991	5,521,506	1,262,887	4,258,619	4.80



### Financial Analysis

\$ 724,003	Annual Energy Savings
\$ 4,258,619	Total Finance Amount
\$ 4,258,619	Eversource Financing - 0%
\$ (59,147)	72 Mons. Financing Payments
\$ 60,334	Monthly Energy Savings
<b>\$ 1,186</b>	<b>Total Cash Positive</b>

\*NOTE\* Savings do not include O&M

# Sustainability

Our comprehensive energy-efficiency upgrades could reduce your consumption by up to 3,109,429kWh annually. That is equivalent to...



preventing the CO<sub>2</sub> emissions of...

# 435

homes' electricity use for one year.\*

the carbon offset of planting...

# 34,543

tree seedlings grown for 10 years.



# 177,585

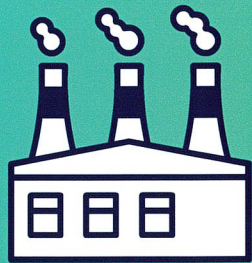
bags of waste recycled instead of landfilled.\*



eliminating the CO<sub>2</sub> emissions from...

# 2,320,572

lbs of coal burned.\*



\*these values were calculated using the EPA's Greenhouse Gas Equivalencies Calculator.

Energy efficiency is not only good for your business, but it is better for our planet.

Together, we can work towards a more sustainable future.



# Financing

This project qualifies for **cash-flow positive** financing.

72 months of financed payments:

**\$59,147 per month**

Annual Energy Savings \$724,003

Total Finance Amount \$4,258,619

Monthly Financing Cost (\$59,147)

Monthly Energy Savings \$60,334

TOTAL MONTHLY  
CASH POSITIVE:

**\$1,186**



# Savings Guarantee, Proposal & Spec Sheets



**Resource**  
Lighting + Energy



02/04/2025

Bristol CT Public Schools  
129 Church Street  
Bristol, CT 06010

RE: Letter Agreement for LED Lighting Upgrades:

Dear Bristol Schools,

Our team at Resource Lighting and Energy, Inc., ("RLE.") is pleased to present you with this agreement for LED Lighting upgrades for Bristol CT Public Schools ("Customer").

### Scope of Work

The proposed scope of work will provide:

#### Lighting Scope

- (16,069) Lighting Fixtures and/or lamps will be updated to LED with Controls
  - See scope for fixture locations
    - 1x4, 2x2 and 2x4 Fixtures will have integrated controls
      - Integrated Controls includes:
        - High-end light level tuning
        - Occupancy sensors
        - Daylight sensors
    - All Linear Fixtures will have integrated controls
      - Integrated Controls includes:
        - High-end light level tuning
        - Occupancy sensors
        - Daylight sensors
    - All Recessed Cans will be new LED Fixtures
    - Pendants, Wall Packs, High Bays & Screw Ins will be new LED Fixtures with integrated controls
    - LED Lamps installed
- This project also includes updating the Stage Lighting at each of the two High School Auditoriums
- Electrical Installation to be conducted during first or second shift with prevailing wage labor
- Project Management
  - This includes programming of all Lighting Control Systems
  - This includes system turnover and training
- Utility Rebate Paperwork
- Recycling and Trash Removal
- Electrical Permits
  - Provide new disconnect switches that may be required by new code





## Summary of LED Upgrades Per Facility

### **Bristol Central High School: (2973 Fixtures)**

- Turnkey Cost: \$903,734
  - Incentive: \$208,580
  - Annual Energy Savings: \$105,219

### **Eastern High School: (2069 Fixtures)**

- Turnkey Cost: \$825,190
  - Incentive: \$205,404
  - Annual Energy Savings: \$103,283

### **Chippens Hill Middle School: (2062 Fixtures)**

- Turnkey Cost: \$785,544
  - Incentive: \$175,222
  - Annual Energy Savings: \$106,192

### **Edgewood Elementary School: (697 Fixtures)**

- Turnkey Cost: \$310,743
  - Incentive: \$73,095
  - Annual Energy Savings: \$44,403

### **Greene-Hills Elementary School: (2123 Fixtures)**

- Turnkey Cost: \$530,213
  - Incentive: \$113,837
  - Annual Energy Savings: \$69,658

### **Hubbell Elementary School: (974 Fixtures)**

- Turnkey Cost: \$346,676
  - Incentive: \$78,578
  - Annual Energy Savings: \$47,700

### **Ivy Drive Elementary School: (873 Fixtures)**

- Turnkey Cost: \$288,432
  - Incentive: \$62,120
  - Annual Energy Savings: \$37,711

### **Mountain View Elementary School: (744 Fixtures)**

- Turnkey Cost: \$259,218
  - Incentive: \$58,228
  - Annual Energy Savings: \$35,417





## South Side School: (817 Fixtures)

- Turnkey Cost: \$311,860
  - Incentive: \$71,784
  - Annual Energy Savings: \$43,506

## Stafford School: (967 Fixtures)

- Turnkey Cost: \$374,939
  - Incentive: \$84,974
  - Annual Energy Savings: \$51,508

## West Bristol School: (1770 Fixtures)

- Turnkey Cost: \$584,958
  - Incentive: \$131,064
  - Annual Energy Savings: \$79,404

### Summary Efficiency Solutions

The costs, savings, and potential estimated utility incentives developed for the energy efficiency solution are as follows.

The total turnkey project cost is **\$5,521,506**. This project saves **\$724,003** in annual energy savings, and **\$162,991** in annual lamp replacement savings for a total project savings of **\$886,994** annually. This project also qualifies for an estimated **\$1,262,887** in lighting incentives (22.9% Total Project Cost) from Eversource. RLE's customer will pay the total project cost of **\$5,521,506** less the Eversource incentive of **\$1,262,887** for a total cost of **\$4,258,619**. Resource Lighting and Energy will receive the Eversource incentive payment.

### Description of Efficiency Solutions

The efficiency solution will be installed as a turnkey project with RLE providing project management, obtaining permits and performing trash removal and recycling. All work will be performed in accordance with applicable codes. Pricing is based on work performed during normal business hours or second shift hours at prevailing wage rates. The work does not include correcting existing faulty wiring. If such deficiencies are identified during the installation, a separate price will be provided for repairing the deficiencies.

### LED Lighting Upgrade

All the existing interior and exterior lighting will be upgraded to new LED Fixtures. The LED Fixtures being implemented will meet or exceed IES Standard light levels and existing building lighting codes. RLE only uses name brand LED lighting with a proven track record that is DLC approved and provided with at least 5-7-year warranties. Light levels will meet or exceed IES recommended standards. There are additional maintenance savings from avoided lamp replacement.

### Warranties

RLE shall perform the services and installation of the equipment and systems described and called for by this Agreement in a good and workmanlike manner and in compliance with all applicable laws. The Lighting System installation shall be warranted to be free from defects in materials and workmanship for





# Resource

Lighting + Energy

a period of one year thereafter. In its sole election, RLE will repair or replace nonconforming equipment at no charge to Customer. LED light fixtures carry a 5 - 7-year manufacturer’s warranty. After Customer’s acceptance of this agreement, it shall be the Customer’s responsibility to communicate directly with the manufacturers for replacement/repair of failed equipment under warranty. Appropriate manufacturer contact information shall be provided. In no event shall RLE be liable for any incidental, indirect, special, or consequential damages (including but not limited to lost profits), or any costs of cover arising out of or related to the efficiency solutions or any use thereof. There are no other warranties, express or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.

### Cost of Services

The total installed cost of these projects is **\$5,521,506**. RLE has qualified this project for incentives of **\$1,262,887** from Eversource with the understanding that the projects will be installed in 2025. RLE will take the incentives as direct payment from Eversource reducing “CUSTOMER” capital cost and removing incentive risk from “CUSTOMER” if RLE receives acceptance of this proposal by March 7, 2025. The remaining cost (**\$5,521,506 - \$1,262,887**) of **\$4,258,619** will be paid by Customer to RLE as follows:

Customer (jointly and severally) agrees to pay RLE total turnkey price of **\$5,521,506** as follows.

1. Bristol will finance the total of **\$4,258,619** through Eversource. This will be paid at 0% interest over 72 months. Eversource will pay RLE the financed amount of **\$4,258,619** directly once the project has been completed and fully inspected by the utility. Eversource will also pay the incentive amount of **\$1,262,887** once the project has been completed and fully inspected by the utility.
2. This contract is only valid if the Eversource Letter of Agreement has been signed by the City of Bristol.
3. If any change orders have been accrued over the course of the project, they shall be paid by Bristol directly to RLE.
4. RLE is offering a savings guarantee on this project. Please see *Attachment A* for additional details.

We appreciate this opportunity to collaborate and work with you and your energy needs. If you are in agreement, please sign, date, and return a copy of this agreement to my attention.

All the best,

---

Nicholas Procko – RLE

Date

---

Superintendent of Schools

Date



## Attachment A: Savings Guarantee

Resource Energy Solutions, Inc. (RLE) guarantees to the city of Bristol (Customer) that the Eversource Energy Efficiency Project will realize an annual energy savings of \*3,190,429 kWh (+/- 20%). \*This is pending Eversource LOA savings number\* These savings will be obtained through the installation and operation of combined Energy Conservation Measures (ECM's) outlined in our proposal. The 80% savings guarantee is based on Public Utility Regulatory Authority (PURA) standards. Our energy savings estimate will be verified Pre-Installation and Post-Installation by the performance of Measurement and Verification activities.

### Savings, Cost and Energy Analysis

Our baseline and energy saving calculations are based on standard energy engineering principles and all calculations are available for our customers to review.

An additional analysis step that RLE takes is to compare the historical utility bills to industry standard benchmarks. This process allows us to have a high level of accuracy when performing our savings analysis.

#### Existing:

Baseline energy consumption for lighting will be based on industry standard fixture wattages and use the number and type of lamps per fixture along with the number and type of ballasts per fixture. Wattages will be confirmed via spot checking the existing system using the appropriate measurement devices. These fixture wattages will be multiplied by the number of fixtures in each room and categorized by area type (i.e. hallways, restrooms, private offices, open areas, gymnasiums). Operating hours are based on information provided by our customers and on-site facility personnel. Annual run times will be adjusted to reflect holidays and other times at which the facilities may not open for business.

The total of the fixture wattages multiplied by the number of fixtures multiplied by the corresponding operating hours per area type will give us the baseline kW and kWh (kilowatt hours) electrical consumption in total and by area type.

$$\text{area fixture wattage} \times \text{area operating hours} = \text{baseline kWh/area type}$$

$$\text{sum of baseline kWh/area type} = \text{total baseline consumption}$$

#### Proposed

The proposed energy consumption for the lighting will be calculated in a similar manner using the specified manufacturer's published wattages and based on the associated improvements specified for various fixtures multiplied by the annual operating hours after the installation of occupancy sensors. The operating hours used for the post occupancy sensor installation will be calculated based on information provided by our customers and on-site facility personnel.

The product of the fixture wattages (post retrofit) multiplied by the number of fixtures multiplied by the corresponding operating hours (post occupancy sensor installation) per area type will provide the post kWh (kilowatt hours) electrical consumption. The difference between the baseline consumption and the post consumption is the energy savings that will be seen with the combined lighting improvement and sensor installation.



Course Title:	Content Area:	Grade Level:	Credit (if applicable)
Intro to Journalism	English	10th-12th	.5
<b>Course Description:</b>			
<p>This course will acquaint students with a variety of journalistic activities including an exploration of the responsibilities, resources, and tools needed to identify newsworthy topics, research different views/angles of a topic, and write or report pieces that are unbiased and ethical. Students will develop critical thinking skills and engage with others who have differing or similar values/beliefs. Students taking this course should be recommended by an English teacher.</p>			
<b>Aligned Core Resources:</b>		<b>Connection to the <i>BPS Vision of the Graduate</i></b>	
<ul style="list-style-type: none"> <li>None</li> </ul>		<p><b>MEDIA LITERACY</b></p> <ul style="list-style-type: none"> <li>Understand both how and why media messages are constructed, and for what purpose</li> <li>Apply a fundamental understanding of the ethical/legal issues surrounding the access and use of media</li> </ul> <p><b>COMMUNICATION</b></p> <ul style="list-style-type: none"> <li>Articulates thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts</li> <li>Use communication for a range of purposes (e.g. to inform, instruct, motivate and persuade)</li> </ul>	
<b>Knowledge/Skill Dependent courses/Prerequisites:</b>		<b>Link to <i>Completed Equity Audit</i></b>	
<ul style="list-style-type: none"> <li>English 1</li> </ul>		<ul style="list-style-type: none"> <li><a href="#">Intro to Journalism Equity Audit</a></li> </ul>	
<b>Unit Links</b>			
<p><a href="#">Unit 1: Intro to Journalism</a>  <a href="#">Unit 2: Genres of Journalism</a>  <a href="#">Unit 3: Investigative Reporting</a></p>			

# Unit 1: Intro to Journalism

## Overview

### Relevant Standards: **Bold indicates priority**

- **RI.11-12.3** Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.
- **RI.11-12.6** Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness or beauty of the text.
- **RI.11-12.7** Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.

## Overview

In this short, introductory unit, students are introduced to the fundamental purpose, rights, and responsibilities of the journalistic profession. Students consider different means by which journalists determine what is newsworthy, as well as ethical dilemmas that may arise in the profession, first amendment protections for journalists, expectations of objectivity, and differing levels of professionalism that exist in the media landscape.

### Essential Question(s):

- What makes a story newsworthy?
- What are the rights and responsibilities of journalists?

### Enduring Understanding(s):

- Journalists determine the newsworthiness of a topic by examining specific values: timeliness, impact, proximity, controversy, prominence, currency, and oddity, but different journalists may emphasize some values over others, leading to differing interpretations of what makes a story newsworthy.
- Journalism is a fundamental element of a democratic society. The U.S. Constitution protects the rights of journalists so that the government is held accountable and citizens are informed. With these rights come responsibilities to ensure objectivity and accuracy, limit misinformation to protect the integrity of the news. Journalists are also bound by a professional code of ethics, but the application of the code of ethics is still sometimes open to interpretation.

<b>Demonstration of Learning:</b>	
<ul style="list-style-type: none"> <li>Summative assessment includes multiple-choice questions as well as open-ended responses.</li> </ul>	
<b>Connections to Prior Units:</b>	<b>Connections to Future Units:</b>
<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>In future units, students examine and undertake the work of journalists by reading, researching, and drafting their own articles. As they do so they will draw upon the rights and responsibilities introduced in this unit.</li> </ul>
<b>Family Overview (link below)</b>	<b>Pacing for Unit</b>
<ul style="list-style-type: none"> <li><a href="#">Journalism U1 Family Overview</a></li> </ul>	<ul style="list-style-type: none"> <li>3 weeks (6 lessons, 1 flex day)</li> </ul>
<b>Integration of Technology:</b>	<b>Aligned Unit Materials, Resources, and Technology:</b>
<ul style="list-style-type: none"> <li>Use of google docs is recommended throughout the writing process to facilitate drafting, feedback, collaboration, and revision.</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">Supreme Court Case Studies</a></li> </ul>
<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions:</b>
<ul style="list-style-type: none"> <li>Students may have encountered similar supreme court cases, and will have considered First Amendment rights, in Civics and/or Law and Justice</li> </ul>	<ul style="list-style-type: none"> <li>Students may treat all news (professional, citizen, etc.) equally and may not appreciate the professional standards and rigorous nature of ethical journalism.</li> <li>Students may take for granted the importance of a free press in a democratic society.</li> </ul>
<b>Differentiation through <i>Universal Design for Learning</i></b>	
<b>UDL Indicator</b>	<b>Teacher Actions:</b>
<ul style="list-style-type: none"> <li>CONSIDERATION 3.1 Connect prior knowledge to new learning</li> </ul>	<ul style="list-style-type: none"> <li>Anchor instruction by linking to and activating relevant prior knowledge (e.g. drawing on prior learning involving text structure/organization )</li> <li>Pre-teach critical prerequisite concepts through demonstration or models</li> <li>Bridge concepts with relevant analogies and metaphors</li> </ul>

- Make explicit cross-curricular connections (e.g., drawing upon prior examples of First Amendment tensions in Modern American History, such as Schenck v. United States)

### Supporting Multilingual/English Learners

#### Related *CELP standards:*

- 9-12.2 An EL can . . . participate in grade appropriate oral and written exchanges of information, ideas, and analyses, responding to peer, audience, or reader comments and questions.
  - Level 1: With prompting and supports, actively listen to others during discussions of ethical dilemmas and respond to simple yes/no questions and some wh- questions
  - Level 2: with prompting and supports, actively listen to others during short discussions of ethical dilemmas and respond to simple questions and wh questions
  - Level 3: with guidance and supports, participate in short discussions of ethical dilemmas by building on the ideas of others, expressing their own ideas, asking/answering questions, and adding relevant information
  - Level 4: participate in discussions of ethical dilemmas, building on the ideas of others, expressing their own ideas clearly, supporting points with specific and relevant evidence, asking/answering questions to clarify ideas and conclusions.
  - Level 5: participate in discussions of ethical dilemmas, building on the ideas of others, expressing his or her own ideas clearly and persuasively, referring to specific and relevant evidence from texts to support his or her ideas, asking/answering questions that probe others' reasoning.

# Unit 1: Introduction to Journalism

## Lesson Map

Lesson	Topic	Learning Target	Vocabulary	Knowledge
1	What is News?	<ul style="list-style-type: none"> <li>I can analyze and compare the newsworthiness of multiple stories by using the eight news values.</li> </ul>	Prominent Proximity Magnitude	News News values Newsworthiness
2	Ethics of Journalism	<ul style="list-style-type: none"> <li>I can analyze an ethical dilemma using the SPJ Code of Ethics</li> </ul>	Ethical Dilemma Morals Integrity	SPJ Code of Ethics
3	First Amendment Cases	<ul style="list-style-type: none"> <li>I can explain the rights of journalists protected by the First Amendment and their importance in a democratic society.</li> </ul>		First Amendment Freedom of the Press Freedom of Information Prior Restraint Reckless Disregard Scholastic Journalism <b>Hazelwood v. Kuhlmeier</b> <b>New York v. Sullivan</b> <b>Branzburg v. Hayes</b> <b>New York Times v. U.S.</b> <b>Gertz v. Robert Welch</b>
4	Opinion vs. Facts (Objectivity vs. Editorial)	<ul style="list-style-type: none"> <li>I can evaluate the differences between an opinion piece and a news story.</li> </ul>	Objective Subjective	Source Bias Credibility Editorial
5	Professional vs Citizen Journalists	<ul style="list-style-type: none"> <li>I can compare the rights, responsibilities, and impact of professional journalists, influencers, and ordinary citizens.</li> </ul>		Fact Checking Misinformation Disinformation
6	Assessment			
7	Flex			

## Unit 2: Genres of Journalism

### Overview

#### Relevant Standards: **Bold indicates priority**

- RI.11-12.3 Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.
- RI.11-12.5 Analyze and evaluate the effectiveness of the structure an author uses in his or her exposition or argument, including whether the structure makes points clear, convincing, and engaging.
- RI.11-12.6 Determine an author's point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness or beauty of the text.
- W.11-12.2 Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- W.11-12.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grades 11-12 here.)

### Overview

In this unit, students briefly explore a range of news genres. They read and analyze examples of news stories, feature stories, opinion writing, sports journalism, and entertainment news in order to more deeply understand the unique conventions of each genre as well as the characteristics of quality writing that unite them all. Students also write short drafts of each genre before choosing one of these drafts to develop, polish, and publish in the school newspaper.

### Essential Question(s):

- What distinguishes different genres of journalism? How are they similar, and how are they different?

<b>Enduring Understanding(s):</b>	
<ul style="list-style-type: none"> <li>Strong journalistic writing is built on a foundation of critical analysis and ethical integrity, combining accurate research, clear organization, and compelling storytelling to engage audiences and provoke thought, regardless of the medium or platform.</li> <li>Different types of journalism—such as news, feature, opinion, lifestyle, sports, and entertainment—have unique structures, purposes, and audiences. Each type is shaped by its goal: to inform, entertain, persuade, or inspire, and follows specific guidelines and conventions that are often unique to that genre. Understanding these differences helps journalists create content that effectively engages their audience and serves its intended purpose.</li> </ul>	
<b>Demonstration of Learning:</b>	
<ul style="list-style-type: none"> <li><a href="#">Single Genre Article for Publication</a></li> </ul>	
<b>Connections to Prior Units:</b>	<b>Connections to Future Units:</b>
<ul style="list-style-type: none"> <li>After identifying what makes an event newsworthy in the prior unit, students will explore how authors write about newsworthy events in a variety of genres</li> </ul>	<ul style="list-style-type: none"> <li>Students will have been introduced to an “inverted pyramid” structure writing introductions in middle school</li> <li>In this unit, students examine and draft a range of shorter new pieces before examining, researching, and drafting a long form piece in the next unit.</li> </ul>
<b>Family Overview (link below)</b>	<b>Pacing for Unit</b>
<ul style="list-style-type: none"> <li><a href="#">Journalism U2 Family Overview</a></li> </ul>	<ul style="list-style-type: none"> <li>6 weeks (12 lessons, 3 flex days)</li> </ul>
<b>Integration of Technology:</b>	<b>Aligned Unit Materials, Resources, and Technology:</b>
<ul style="list-style-type: none"> <li>Use of google docs is recommended throughout the writing process to facilitate drafting, feedback, collaboration, and revision.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions:</b>
<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Students assume all news is the same, not recognizing that different styles or genres have varying conventions and different purposes.</li> <li>Students may be especially familiar with certain genres of journalism, having less experience or exposure to others.</li> </ul>

## Differentiation through *Universal Design for Learning*

### UDL Indicator

- CONSIDERATION 7.2 Optimize relevance, value, and authenticity

### Teacher Actions:

- Vary the news articles students analyze so that they can be:
  - Personalized and contextualized to learners' lives
  - Culturally relevant and sustaining
  - Socially relevant
  - Age and ability appropriate
  - Appropriate for different racial, cultural, ethnic, and gender groups
- Emphasize that the articles students write are authentic articles written for real audiences, and reflect a purpose that is clear to the participants.

## Supporting Multilingual/English Learners

### Related *CELP standards:*

- 9-12.1 An EL can . . . construct meaning from oral presentations and literary and informational text through grade appropriate listening, reading, and viewing.

### Sample Learning Targets:

- Level 1: With prompting and supports, I can identify a few key people or events from a news story.
- Level 2: With prompting and supports, I can identify the main topic of a news story and retell a few key people or events.
- Level 3: With guidance and supports, I can determine the central idea of a news story and explain how specific examples develop that idea.
- Level 4: I can identify two or more central ideas of a news story and explain how specific examples develop those ideas.
- Level 5: I can identify central ideas in news stories and analyze how structure and style impact readers, using specific examples to support the analysis.

## Unit 2: Genres of Journalism

### Lesson Map

Lesson	Topic	Learning Target	Vocabulary	Knowledge
1	News Journalism	<ul style="list-style-type: none"> <li>I can analyze how the structure and style of news articles serve the author's purpose or engage their readers.</li> </ul>	Captivating Emerging Dynamic	Inverted Pyramid Lede Nutgraf Headline Outcome Attribution
2	News Journalism	<ul style="list-style-type: none"> <li>I can draft a news story that engages readers through the effective selection, organization, and analysis of content.</li> </ul>		Working Draft
3	Feature Journalism	<ul style="list-style-type: none"> <li>I can evaluate and analyze the structure and content of a feature profile.</li> </ul>	Profile Nuance	Body Text Features
4	Feature Journalism	<ul style="list-style-type: none"> <li>I can draft a feature profile that engages readers through the effective selection, organization, and analysis of content.</li> </ul>		Angle Chicago Citations Audience Purpose Perspective
<a href="#">5</a>	Opinion Journalism	<ul style="list-style-type: none"> <li>I can analyze and evaluate the structure and content of Op-Ed articles.</li> </ul>	Impassioned Provocative Contested	Op-Ed Voice Hook Diagnosis Prescription Concession Call-to- action
6	Opinion Journalism	<ul style="list-style-type: none"> <li>I can draft an op-ed article that uses valid reasoning and relevant evidence to support a position on an issue that matters to me.</li> </ul>		
7	Lifestyle Journalism	<ul style="list-style-type: none"> <li>I can analyze the structure and content of lifestyle journalism.</li> </ul>	Influence Engaging	Clickbait Algorithm

				Hashtag Infotainment Sponsored Content
8	Sports Journalism	<ul style="list-style-type: none"> <li>I can evaluate and analyze the structure and content of sports articles.</li> </ul>	Decisive Dominant Promising Pivotal	Sports Journalism Play by Play Press Conference Statistics Highlights
9	Entertainment Journalism	<ul style="list-style-type: none"> <li>I can evaluate and analyze the structure and content of entertainment reviews and profiles.</li> </ul>	Prominent Notorious Acclaimed	Entertainment Journalism Critic/Critique Synopsis Genre
10	Lifestyle/Sports Entertainment Writing	<ul style="list-style-type: none"> <li>I can draft a lifestyle, sports, or entertainment piece that engages readers through the effective selection, organization, and analysis of content.</li> </ul>		
11	Feedback/Revising	<ul style="list-style-type: none"> <li>I can choose a draft to expand and revise.</li> <li>I can provide peer feedback focused on structure and content and use feedback to make revisions to my own writing.</li> </ul>	Consistent Redundant	Peer Review Constructive Criticism Revise Expand Tone Transition
12	Editing/Polishing	<ul style="list-style-type: none"> <li>I can revise, refine, and prepare a polished draft for publication.</li> </ul>	Refine	Copyediting Publication
13	Flex	<ul style="list-style-type: none"> <li>I can analyze how the choices made by photojournalists serve their purpose and impact their readers.</li> </ul>		Composition Lighting Angle Moment Selection Context Preservation Arrangement
14	Flex			
15	Flex			

## Unit 3: Investigative Reporting

### Overview

#### Relevant Standards: **Bold indicates priority**

- **W.11-12.2** Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
- **W.11-12.5** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grades 11-12 here.)
- **W.11-12.6** Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.
- **W.11-12.7** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
- **W.11-12.8** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

### Overview

In the final unit of the course, students turn their attention to long form journalism. After having studied and drafted a variety of short works, students will examine cases where long form investigative reporting had a significant impact on a social issue. They will then engage in an extended investigation of their own, choosing topics, conducting research, gathering data, preparing interviews, and eventually writing a long form piece to be published in the school newspaper.

### Essential Question(s):

- What role does journalism play in shaping public opinion and reflecting cultural values?
- What techniques are essential for newsgathering, drafting, revising, and refining journalistic writing?

<b>Enduring Understanding(s):</b>	
<ul style="list-style-type: none"> <li>Investigative journalism not only documents events but also shapes societal discourse, acting as a reflective mirror of cultural dynamics and a catalyst for change. Understanding its role demands a grasp of both its power to inform and its responsibility to uphold truth and transparency.</li> <li>Drafting and revising are iterative processes that enhance the quality of writing and ensure accuracy, clarity, and coherence. Effective feedback, both given and received, is integral to refining journalistic work.</li> </ul>	
<b>Demonstration of Learning:</b>	
<ul style="list-style-type: none"> <li><a href="#">Long-Form Article for Publication</a></li> </ul>	
<b>Connections to Prior Units:</b>	<b>Connections to Future Units:</b>
<ul style="list-style-type: none"> <li>Students will draw upon their learning from Unit 1 by considering the role of investigative journalism in society.</li> <li>Students will build upon their understanding of the conventions of various genres by applying them to longer form journalism.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Family Overview (link below)</b>	<b>Pacing for Unit</b>
<ul style="list-style-type: none"> <li><a href="#">Journalism U3 Family Overview</a></li> </ul>	<ul style="list-style-type: none"> <li>8 weeks (17 lessons, 3 flex days)</li> </ul>
<b>Integration of Technology:</b>	<b>Aligned Unit Materials, Resources, and Technology:</b>
<ul style="list-style-type: none"> <li>Use of google docs is recommended throughout the writing process to facilitate drafting, feedback, collaboration, and revision.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions:</b>
<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li>Students may not appreciate the amount of research that goes into investigative reporting, and the amount of research that doesn't make it into a final piece.</li> <li>Students may think that investigative journalism is primarily about dramatic undercover work or whistleblowing, without appreciating the painstaking nature of document analysis, data compilation, fact checking, and interviewing sources.</li> </ul>

## Differentiation through *Universal Design for Learning*

### UDL Indicator

- CONSIDERATION 6.4 Enhance capacity for monitoring progress

### Teacher Actions:

- Use prompts to guide self-monitoring and reflection along the research and writing process
- Use representations of progress (e.g., process portfolios including initial research questions and refined research questions).
- Explore the different types of feedback that are most useful according to specific preferences, goals, and contexts.
- Use templates that guide self-reflection on quality and completeness (graphic organizer assessing the depth, variety, viewpoint diversity, and relevance of sources).
- Use checklists, rubrics, models, and examples.

## Supporting Multilingual/English Learners

### Related *CELP standards:*

- 9-12.5 An EL can . . . conduct research and evaluate and communicate findings to answer questions or solve problems.

### Learning Targets:

- Level 1: With prompting and supports, gather information from a few provided sources, labeling collected information as evidence to support a predetermined idea or claim.
- Level 2: With prompting and supports, gather information from a few provided primary sources, recording some quoted evidence and summarizing findings..
- Level 3: With guidance and supports, gather information from multiple provided primary sources, evaluating the reliability of each source, and paraphrasing key information in a short written or oral report.
- Level 4: Gather and synthesize information from multiple primary sources, evaluating the reliability of each source and integrating information into an organized oral or written argument
- Level 5: Use advanced search terms to gather and synthesize information from multiple primary sources, evaluating the reliability of each source and integrating information into an organized oral or written argument.

## Unit 3: Producing a Long-Form Article

### Lesson Map

Lesson	Topic	Learning Target	Vocabulary	Knowledge
1	Investigative Journalism	<ul style="list-style-type: none"> <li>I can analyze and evaluate the content, structure and impact of investigative journalism</li> </ul>	Expose Corroborate	Evidence collection Data review Corroborating info from multiple sources Narrative
2	Investigative Journalism	<ul style="list-style-type: none"> <li>I can analyze and evaluate the content, structure and impact of investigative journalism</li> </ul>	Expansive Revelatory	
3	Newsgathering-	<ul style="list-style-type: none"> <li>I can choose a topic and genre for my long-form article.</li> <li>I can define preliminary objectives and research questions to investigate further.</li> </ul>		Longform
4	Newsgathering-	<ul style="list-style-type: none"> <li>I can conduct preliminary research to build my knowledge on my topic using keywords and phrases.</li> </ul>		
5	Newsgathering-	<ul style="list-style-type: none"> <li>I can narrow or broaden my research based on my understanding of the subject under investigation.</li> </ul>		
6	Newsgathering-	<ul style="list-style-type: none"> <li>I can identify and prepare to interview people who could become sources for my long form article by creating interview questions and conducting background research.</li> </ul>		
7	Newsgathering-	<ul style="list-style-type: none"> <li>I can gather both primary and secondary source material that effectively supports my research questions.</li> </ul>		
8	Newsgathering-	<ul style="list-style-type: none"> <li>I can assess the strengths and limitations of each source in terms of the task, purpose, and audience.</li> <li>I can identify opportunities to achieve greater depth, variety, viewpoint diversity, and relevance in my sources.</li> </ul>		

9	Newsgathering-	<ul style="list-style-type: none"> <li>I can gather additional primary and secondary source material to address potential gaps in my research.</li> </ul>		
10	Drafting	<ul style="list-style-type: none"> <li>I can create an outline that synthesizes and organizes the main ideas and supporting details of my article.</li> </ul>	Hierarchy Sequence Flow	Main Idea Supporting Details Topic Sentence Subtopics
11	Drafting	<ul style="list-style-type: none"> <li>I can draft the opening paragraphs of my long-form article that engages the reader and communicates the focus of my article.</li> </ul>		Lead
12	Drafting	<ul style="list-style-type: none"> <li>I can draft body paragraphs that introduce and develop my ideas with clear organization, detailed evidence, and a consistent tone.</li> </ul>		
13	Drafting	<ul style="list-style-type: none"> <li>I can draft a conclusion to my long-form article that restates my main idea and makes it relevant or impactful for my readers.</li> </ul>		
14	Peer Feedback/Revising	<ul style="list-style-type: none"> <li>I can provide and receive constructive peer feedback and use it to make revisions to my own writing.</li> </ul>		
15	Editing/Polishing	<ul style="list-style-type: none"> <li>I can revise, refine, and prepare a draft for publication.</li> </ul>		
16	Presenting/Reflecting			
17	Presenting/Reflecting			
18	Flex			
19	Flex			
20	Flex			

**Curriculum Writing Notes:**

Address UDL and CELP AFTER learning targets are written, in process they'll be developed after all learning targets and success criteria. These targets with UDL and CELP will be a model of what could/should be done for all learning targets but can't be completed (to keep the process concise). Through the curriculum writing process, teachers can build a deeper understanding of how to approach this differentiation.

Enduring understanding/Essential questions may be easier to develop at the end of the process.

Committees can alter the format but these are the required pieces.

Course Title:	Content Area:	Grade Level:	Credit (if applicable)
Grade 1 Social Studies	Social Studies	Grade 1	N/A
<b>Course Description:</b>			
<p>Communities in Connecticut aim to engage in and advance democratic principles. In this unit, first graders will seek to understand the role of democratic principles in local, national, and many global communities. Students will explore their role in classroom procedures as well as examine the rules and roles of the communities that they are engaged in. Students will also create and analyze compelling questions about communities, identify facts to answer compelling questions, and determine the sources needed to answer the questions.</p>			
<b>Aligned Core Resources:</b>		<b>Connection to the <a href="#">BPS Vision of the Graduate</a></b>	
Unit 1 Citizenship in our Community/Geography and Maps slide deck  Unit 2 Our Needs as a Community/ Geography and Maps slide deck  Unit 3 The Relationship Between Family, School, and Community/ Geography and Maps slide deck  Capstone Grade 1 Box with aligned books		Communication <ul style="list-style-type: none"> <li>Articulates thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts</li> <li>Utilize multiple media and technologies, and know how to judge their effectiveness as well as assess their impact</li> </ul> Empathy <ul style="list-style-type: none"> <li>Demonstrating understanding of others perspectives and needs</li> <li>Understand the concept of community as a means for supporting others in need</li> </ul> Critical Thinking and Problem Solving <ul style="list-style-type: none"> <li>Collect, assess and analyze relevant information</li> </ul> Civic Literacy <ul style="list-style-type: none"> <li>Understand the local and global implications of civic decisions</li> <li>Understand other nations and cultures including the use of non-English language</li> </ul>	
<b>Additional Course Information:</b> <i>Knowledge/Skill Dependent courses/prerequisites</i>		Link to <a href="#">Completed Equity Audit</a>	

Students will enter Grade 1 having explored these course questions in their Kindergarten coursework:

What makes a community?

How do we learn about our community?

Under Dimension 2, Grade 1 students will have engaged in learning (from kindergarten) to build on the following Grade 1 standards:

K. Geo. 2.a. which is a precursor standard to 1. Geo.2. a.

K. Eco. 4.a. which is a precursor standard to 1. Eco. 5.a.

K. Eco. 5.a. which is a precursor standard to 1. Eco. 15.b.

## Standard Matrix

### [CT Elementary and Secondary Social Studies Standards](#)

District Learning Expectations and Standards	Unit 1	Unit 2	Unit 3
<b>Dimension 1- Develop Questions and Plan Inquiries</b>			
1.Inq.1.a. Explain why a compelling question about community members is important to the student.	X	X	X
1.Inq.1.b. Identify facts and concepts related to compelling and supporting questions.	X	X	X
1.Inq.1.c. Determine the kinds of sources that will be helpful in answering compelling and supporting questions.	X	X	X
<b>Dimension 2- Apply Disciplinary Concepts and Tools</b>			
1.Inq.2.a. Apply disciplinary knowledge and practices to demonstrate an understanding of social studies content.	X	X	X
<b>Dimension 3- Evaluate Sources and Use Evidence</b>			
1.Inq.3.a. Gather information from one or two sources to answer a question about the roles and responsibilities of individuals and groups within and among communities.	X	X	X
1.Inq.3.b. Evaluate a source by distinguishing between fact and opinion.	X	X	X
<b>Dimension 4- Communicate Conclusions and Take Informed Action</b>			
1.Inq.4.a. Construct arguments with reasons.	X	X	X
1.Inq.4.b. Construct explanations using correct sequence and relevant information	X	X	X
1.Inq.4.c. Ask and answer questions about arguments and explanations.	X	X	X
1.Inq.4.d. Present a summary of an argument using print, oral, or digital technologies.	X	X	X

1.Inq.4.e. Identify and explain a range of local, regional, and global problems, and some ways in which people can and are trying to address these problems.	X	X	X
1.Inq.4.f. Use listening, consensus-building, and voting procedures to take action in the classroom.	X	X	X
<b>1-1. Contributing in a Democratic Society</b>			
1.Civ.8.a. Describe how the Pledge of Allegiance and classroom procedures promote democratic principles (e.g., equality, justice, liberty, republicanism).	X		
1.Civ.8.b. Describe how symbols of the United States illustrate democratic principles (e.g., Great Seal of the United States, Flag of the United States, Statue of Liberty, America the Beautiful, Bald Eagle).	X		
1.Civ.12.a. Identify and explain the role of rules in the community (e.g., bike helmets, car seats, crosswalks, stoplights).	X	X	
1.Civ.14.a. Explain how people have worked to improve their communities in the past and present.	X	X	X
1.Geo.7.a. Explain why and how people and goods move around the world.		X	X
1.Geo.7.b. Give examples of how ideas are transmitted from person to person and from place to place.	X	X	X
1.Geo.8.a. Compare how urban, suburban, and rural communities use local and distant environments to meet their daily needs.			X
1.Geo.9.a. Describe types of businesses and their connection to their physical environment.			X
1.Eco.4.a. Describe goods and services produced locally and in other communities.		X	X
<b>1-2. Honoring the Past and Present</b>			
1.His.3.a. Generate questions about significant individuals or groups from the past in our community or nation.			X
1.His.6.a. Compare various accounts about significant individuals, groups or events (e.g., book, diary, video, website).			X
1.His.9.a. Identify different kinds of sources that tell about a community's history (e.g., artifacts, historical markers, monuments, symbols).			X
1.Geo.3.a. Use maps to identify Indigenous communities and cultural enclaves both past and present in Connecticut.		X	X
1.Geo.5.a. Describe how human actions can affect the cultural and environmental characteristics of the community (e.g., community beautification, community planning, environmental preservation, national parks and monuments, water use).		X	X
1.Geo.6.a. Describe cultural and environmental characteristics of a variety of		X	X

diverse communities.			
<b>1-3. Global Communities</b>			
1.Geo.2.a. Identify where a student's community is located on different types of maps (e.g., cultural, physical, political).		X	X
1.Geo.2.b. Use maps, graphs, photographs, and other representations to describe how geographic features affect how people live around the globe (e.g., land use, natural resources, water access).	X	X	X
1.Geo.3.b. Use maps, globes, and other simple geographic models to identify the location of countries and continents.			X
1.Geo.3.c. Use maps to identify cultural and environmental characteristics of places around the globe to which students have connections.	X	X	X
1.Geo.4.a. Explain the impact of weather, climate, and environmental characteristics on the way people live around the globe.		X	X
1.Geo.10.a. Describe changes in the physical characteristics of various world regions.		X	X
1.Geo.11.a. Explain how the products people buy connect them to places around the world (e.g., agricultural products, electronics, energy, clothing).		X	X
1.Geo.12.a. Identify ways in which a catastrophic disaster can change how people live in a community.		X	X
1.Eco.14.a. Describe why people in one nation trade goods with people in another nation.		X	
1.Eco.15.a. Identify products that are made in the United States and are sold to other countries.		X	X
1.Eco.15.b. Identify products that are made in other countries and are sold in the United States.		X	X

*If unit headings are formatted as a heading, then we can link a Table of Contents to better organize and provide faster access to each unit*

[Unit 1: Citizenship in Our Community /Geography/Maps](#)

[Unit 2: Our Needs as a Community/Geography and Maps](#)

[Unit 3: The Relationship Between Family, School, and Community/ Geography and Maps](#)

<b>Unit Title:</b>		
Unit 1: Citizenship in Our Community /Geography/Maps		
<b>Relevant Standards: Bold indicates priority</b>		
See above		
<b>Essential Question(s):</b>		<b>Enduring Understanding(s):</b>
<p>Students will apply disciplinary concepts to investigate compelling questions such as:          How do rules help a community become a better place to live?          How are communities different and what determines their differences?</p>		<p>Students will be able to explore the importance of civic virtues and roles within the community that support citizenship. Students will examine the relationship between the roles of citizens and the functioning of a community. Students will learn map features and functions while drawing conclusions and comparing various locations. Students will explore man-made and geographical landforms and how we use and need maps.</p>
<b>Demonstration of Learning:</b>		<b>Pacing for Unit</b>
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Development of questions</li> <li>• Planning inquiries</li> <li>• Evaluate sources</li> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>		6 weeks
<b>Family Overview (link below)</b>		<b>Integration of Technology:</b>
<a href="#">Grade 1 Unit 1</a>		<i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i>
<b>Unit-specific Vocabulary:</b>		<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>
<b>Content Vocabulary</b>		Unit 1 Slide deck Capstone Grade 1 Box of books
Pledge of Allegiance	Democratic Principles	Equality
Justice	Liberty	Community
Citizen	Needs	Wants



Supporting Multilingual/English Learners			
Related <i>CELP standards</i> :		Learning Targets:	
An EL with guidance and supports, can participate in short discussions, conversations, and short written exchanges using words and phrases acquired in conversations, reading, and being read to.		<ul style="list-style-type: none"> <li>I can participate in conversations and discussions using information I learned about</li> </ul>	
Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
1	I can describe how the Pledge of Allegiance promotes democratic principles.	I can turn and talk about how the Pledge of Allegiance promotes democratic principles.	Pledge of Allegiance video
2	I can identify the symbols of America.	I can complete complete the matching activity.	Matching Activity  Epic books:  My Flag  The Statue of Liberty  The Bald Eagle
3	I can discuss why it is important to have rules in our classroom community.	I can create a rules poster for my school or community.	“NO RULES”-The Dice Game
4	I can identify the traits of a responsible citizen.	I can create a poster that identifies the traits of a responsible citizen.  I can discuss why it is important to have rules.	Capstone text: Following Rules
5	I can describe how classroom procedures promote democratic principles.	I can discuss how classroom procedures are similar to the democratic principles.	Class created anchor chart of “Classroom Rules”

6	I can create a classroom pledge and use a symbol.	I can create a symbol for my version of the classroom Pledge.  I can create a group brochure with illustrations that outline important rules that students need to follow in their classroom/schools.	
7	I can describe the role of a community center.	I can explain what a community center is.	Capstone text: Our Community Center
8	I can explain what a community is and what makes it successful.	I can explain the role of community helpers within specific community.	Capstone text: Community Helpers at a Fire Community Helpers at School Community Helpers at a Construction Site
9	I can explain how members of a community help each other.	I can discuss how community helpers help each other.  I can make a class book on Community Helpers A - Z.	Community Helpers Anchor chart - class created
10	I can explain what makes a good citizen.	I can create a poster showing three ways I am a good citizen.	Good citizenship for kids video
11	I can explain the difference between wants and needs.	I can write a list of wants and needs.	Capstone text: Things I Want and Things I Need  We Need Money  Wants or Needs  Note Catcher
12	I can explain what a map is and the purpose of using a map.	I can read the text.  I can discuss/chart parts of a map.	Capstone text: What is a map?
13	I can explain key features on a map.	I can discuss key features of a map.	Capstone text:  Compass Roses and Directions

			Symbols and Keys Map Scales
14 -15	I can create a map of my school or neighborhood.	I can read and discuss the texts.	Capstone text: Types of Maps  School Map
16	I can create features to include in my map.	I can add features such as compass rose, and a map key.	
17-18	I can explain how to be a global citizen.	I can make a how to be a good citizen class book.	Video What Does it Mean to Be Global?
19-20	I can identify the civic duties of Gloria and Officer Buckle.	I can listen listen to the story on Epic.  I can co-create an anchor chart of Officer Buckle's civic virtues.	Epic Officer Buckle and Gloria text
21-27	I can share my learning in different ways.	I can create a list of civic virtues.  I can describe and/or illustrate how two or more members of a community might work together to accomplish a specific school community goal.  I can develop a set of classroom rules as a class.  I can choose one necessary classroom rule and describe why it should be followed and what would happen if the rule was not followed.  I can collaborate with my group to accomplish our school community goal.  I can create a map.  I can take informed action to address a community selected problem.	

		I can write a thank you note to someone in my community.	
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**Unit Title:**

Unit 2: Our Needs as a Community/Geography and Maps

**Relevant Standards: Bold indicates priority**

See above

**Essential Question(s):**

Students will apply disciplinary concepts to investigate compelling questions such as:  
 How do needs and wants affect how we live?  
 How is someone's life different based on where they live?

**Enduring Understanding(s):**

Students will explore the difference between wants and needs and how a lack of resources affects everyone. Students will analyze basic functions of earning/spending and the role of money while broadening their perspective of the world. Students will continue to examine map features and functions while drawing conclusions and comparing various locations. Students will also continue to explore man-made and geographical landforms and how we use and need maps.

**Demonstration of Learning:**


Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):

- Development of questions
- Planning inquiries
- Evaluate sources
- Use Evidence
- Communicate conclusions

**Pacing for Unit**

6 weeks

**Family Overview (link below)**

 [Grade 1 Unit 2](#)

**Integration of Technology:**

*Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning*

**Unit-specific Vocabulary:**

**Content Vocabulary**

Community	Leaders	Services
Goods	Wants	Needs

**Aligned Unit Materials, Resources, and Technology (beyond core resources):**

Unit 2 Slide deck  
 Capstone Grade 1 Box of books

<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions:</b>
<p>CCCS. ELA-Reading: Informational Texts: Standards 1-10  CCCS. ELA Foundational Skills: Standard 4  CCSS.ELA-Writing: Standards 1-3, 5 and 8  CCCS. ELA- Speaking and Listening: Standards 1-6  CCCS. ELA-Language: Standards 1-4</p>	<p>Students may have misconceptions of:  Reading and interpreting the key map  Understanding the differences between natural and a man made geographical landforms</p>
<b>Connections to Prior Units:</b>	<b>Connections to Future Units:</b>
<p>Students will enter Grade 1 having explored these course questions in their Kindergarten coursework:</p> <p>What makes a community?  How do we learn about our community?  Under Dimension 2, Grade 1 students will have engaged in learning (from kindergarten) to build on the following Grade 1 standards:</p> <p>K. His. 9.a. which is a precursor standard to 1. His.9. a.  K. His.2. a. which is precursor standards to 1. His.6. a  K. His.12. a. which is a precursor standard to 1. His.3a.</p>	<p>Students will build upon what they learned in unit 1 and expand on their knowledge of citizenship in unit 2 and the study of community needs and synthesize this information in unit 3 through the study of relationship between family, school and community.</p>
<b>Differentiation through <u>Universal Design for Learning</u></b>	
<b>UDL Indicator</b>	<b>Teacher Actions:</b>
<p>3 Building Knowledge</p> <p>9 Emotional Capacity</p> <p>1 Perception</p>	<p>Connect prior knowledge to new learning (3.1)  Highlight and explore patterns, critical features, big ideas, and relationships (3.2)  Cultivate multiple ways of knowing and making meaning (3.3)  Maximize transfer and generalization</p> <p>Recognize expectations, beliefs, and motivations (9.1)  Develop awareness of self and others (9.2)</p> <p>Represent a diversity of perspectives and identities in authentic ways (1.3)</p>
<b>Supporting Multilingual/English Learners</b>	
<b>Related <u>CELP standards:</u></b>	<b>Learning Targets:</b>
<p>An EL with guidance and supports, can participate in short discussions, conversations, and short written</p>	<ul style="list-style-type: none"> <li>I can participate in conversations and discussions using information I learned about</li> </ul>

exchanges using words and phrases acquired in conversations, reading, and being read to.			
<b>Lesson Sequence</b>	<b>Learning Target</b>	<b>Success Criteria/ Assessment</b>	<b>Resources</b>
1-2	I can identify the communities I belong to.	<p>I can identify how to be a responsible citizen.</p> <p>I can discuss how do members of a community help each other.</p> <p>I can list communities I belong to.</p>	<p>Communities For Kids Video</p> <p>Writing template</p>
3 - 4	I can explain the difference between needs and wants.	I can sort needs and wants and explain why I sorted it that way.	Capstone text: What's Your Point?
5	I can explain how communities change.	<p>I can discuss similarities and differences then and now.</p> <p>I can complete a picture sort of images from long ago and today.</p>	Then and Now Sort
6	I can explain why communities change.	I can discuss how communities change over time.	Capstone text: Life Now and Long Ago
7	I can compare and contrast the different ways to earn a living from the past to the present.	I can discuss how communities change over time.	<p>Anchor Chart</p> <p>Capstone text: Comparing Past and Present text</p>
8- 9	I can explain how the leaders in our community make our community a good place to live.	<p>I can discuss how leaders make our community a good place to live.</p> <p>I can create "Guess Who" or "Who Am I" allowing classmates to guess the community leader.</p>	<p>Video Who Are Our Leaders?</p> <p>Note catcher</p>
10	I can identify jobs in our community and how they affect our community.	I can explain how people earn a living in our community and the various jobs in our community.	Capstone text: People at Work

		I can explain why money is important	Where Do People Work?
11	I can explain how the weather affects where I live.	I can explain the weather in my community.  I can draw a picture of the weather and what people wear for different types of weather in my community.	
12	I can understand how maps tell us about the communities we belong to.	I can discuss what maps help us understand about our communities.	Map of Bristol
13	I can determine the difference between goods and services.	I can gather facts about goods and services.	Good and Services video
14-15	I can compare and contrast past and present communities.	I can gather details about the past and present.  I can interview a family member.	
16-17	I can identify members of the school community and their duties.	I can create a flow chart with specific duties.	
18-27	I can generate a list of school opportunities to resolve and who can help solve them.	I can generate a class list of things to be resolved.  I can discuss how to resolve the problems.  I can cite evidence.	
20	I can identify the different ways people in our community earn money.	I can list examples and non examples of activities that earn money.	
21-23	I can evaluate uses of money.	I can determine how to spend money on wants vs. needs.  I can create a class book for wants and needs.  I can determine pros and cons for saving money.	
24-27	I can take informed action about saving	I can brainstorm a list to help my	

	and spending money.	family save money. I can create a poster.	
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<b>Unit Title:</b>			
Unit 3: The Relationship Between Family, School, and Community/ Geography and Maps			
<b>Relevant Standards: Bold indicates priority</b>			
See above			
<b>Essential Question(s):</b>		<b>Enduring Understanding(s):</b>	
<p>Students will apply disciplinary concepts to investigate compelling questions such as:</p> <p>How do past actions in our community still influence our community today?</p> <p>What do maps tell us about the communities we belong to?</p>		<p>Students will explore personal history and relationships with family, school, and community to better understand culture and its importance in shaping students' lives. Students will continue to examine map features and functions while drawing conclusions and comparing various locations.</p>	
<b>Demonstration of Learning:</b>		<b>Pacing for Unit</b>	
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Development of questions</li> <li>• Planning inquiries</li> <li>• Evaluate sources</li> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>		6 weeks	
<b>Family Overview (link below)</b>		<b>Integration of Technology:</b>	
<a href="#">Grade 1 Unit 3 Family Memo</a>		<i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i>	
<b>Unit-specific Vocabulary:</b>		<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>	
<b>Content Vocabulary</b>		Unit 3 Slide deck Capstone Grade 1 Box of books	
Community	maps		Environment
climate	region		goods



An EL with guidance and supports, can participate in short discussions, conversations, and short written exchanges using words and phrases acquired in conversations, reading, and being read to.		<ul style="list-style-type: none"> <li>I can participate in conversations and discussions using information I learned about</li> </ul>	
Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
1-2	<p>I can discuss how communities have changed over time.</p> <p>I can discuss the difference between needs and wants.</p>	<p>I can cite examples of how communities have changed.</p> <p>I can give 2-3 examples of a need vs. a want.</p>	Communities Video
3	<p>I can identify how my community fits into a global community.</p> <p>I can move the images to show how Bristol fits into a global society.</p>	<p>I can organize where town, state, country and continent fit.</p> <p>I can zoom in and out of Bristol.</p>	Global community activity
4	I can identify how the place you live in impacts your choice of clothing.	I can map different places	Epic text Kids Around the World
5-6	I can compare communities that are similar and different to mine.	I can read and discuss how Bristol is similar and different to other communities.	Capstone text: Rural Homes Houses Around the World Homes that Move
7	I can learn about different places and homes around the world.	I can read and discuss different places and homes around the world.	Epic text: Places Around the World Homes Around the World
8-9	I can compare communities that are similar and different to mine.	I can read and discuss how Bristol is similar and different to other communities.	<p>Kids Discover Text: Where We Live</p> <p>Activity: Where would you like to live?</p>
10-11	I can describe many parts of our Bristol Community.	I can make a Bristol class book.	Bristol Community photographs (Historical Society)
12-13	I can explain how life was different in the past.	<p>I can compare and contrast the past and present.</p> <p>I can compare landmarks</p>	Happy Birthday video example or memory

		around Bristol: Main Street Lake Compounce Page Park	Bristol Community photographs (Historical Society)
14-16	I can explore how a community takes informed actions.	I can explore BAIMS past and present.  I can determine why BAIMS was a need.  I can analyze a timeline.	Photographs of BAIMS

**Curriculum Writing Notes:**

Address UDL and CELP AFTER learning targets are written, in process they'll be developed after all learning targets and success criteria. These targets with UDL and CELP will be a model of what could/should be done for all learning targets but can't be completed (to keep the process concise). Through the curriculum writing process, teachers can build a deeper understanding of how to approach this differentiation.

Enduring understanding/Essential questions may be easier to develop at the end of the process.

Committees can alter the format but these are the required pieces.

Course Title:	Content Area:	Grade Level:	Credit (if applicable)
Grade 2 Social Studies	Social Studies	Grade 2	N/A
<b>Course Description:</b>			
<p>In Grade 2, students explore how people contribute to society. Students investigate democratic principles, leadership in the past and present, and how decisions are made within local, national, and global communities. Students investigate how people work together and make decisions using disciplinary tools and resources that support planning and developing inquiries, gathering relevant information, and communication of knowledge and ideas about people's contributions to society.</p>			
<b>Aligned Core Resources:</b>		<b>Connection to the <a href="#">BPS Vision of the Graduate</a></b>	
Unit 1 Government slide deck  Unit 2 Rights & Responsibilities of Citizens in Society & Bristol slide deck  Unit 3 People from the Past that contributed to Society slide deck  Capstone Grade 2 Box with aligned books		Communication <ul style="list-style-type: none"> <li>Articulates thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts</li> <li>Utilize multiple media and technologies, and know how to judge their effectiveness as well as assess their impact</li> </ul> Empathy <ul style="list-style-type: none"> <li>Demonstrating understanding of others perspectives and needs</li> <li>Understand the concept of community as a means for supporting others in need</li> </ul> Critical Thinking and Problem Solving <ul style="list-style-type: none"> <li>Collect, assess and analyze relevant information</li> </ul> Civic Literacy <ul style="list-style-type: none"> <li>Understand the local and global implications of civic decisions</li> <li>Understand other nations and cultures including the use of non-English language</li> </ul>	
<b>Additional Course Information:</b> <i>Knowledge/Skill Dependent courses/prerequisites</i>		Link to <a href="#">Completed Equity Audit</a>	

Who are the diverse populations and people that live in your community, now and in the past?

How do citizens affect change in their community?

How do people in communities work together?

How do leaders make decisions?

## Standard Matrix

### [CT Elementary and Secondary Social Studies Standards](#)

District Learning Expectations and Standards	Unit 1	Unit 2	Unit 3
<b>Dimension 1- Develop Questions and Plan Inquiries</b>			
2.Inq.1.a. Explain why a compelling question about a significant person, event, or issue in a community is important to the student.	X	X	X
2.Inq.1.b. Identify facts and concepts related to compelling and supporting questions	X	X	X
2.Inq.1.c. Determine the kinds of sources that will be helpful in answering compelling and supporting questions.	X	X	X
<b>Dimension 2- Apply Disciplinary Concepts and Tools</b>			
2.Inq.2.a. Apply disciplinary knowledge and practices to demonstrate an understanding of social studies content.	X	X	X
<b>Dimension 3- Evaluate Sources and Use Evidence</b>			
2.Inq.3.a. Gather relevant information from one or two sources about a significant person, event, or issue in a community while using origin and structure to guide the selection.	X	X	X
2.Inq.3.b. Evaluate a source by distinguishing between fact and opinion.multiple sources.	X	X	X
<b>Dimension 4- Communicate Conclusions and Take Informed Action</b>			
2.Inq.4.a. Construct arguments with reasons	X	X	X
2.Inq.4.b. Construct explanations using correct sequence and relevant information.	X	X	X
2.Inq.4.c. Ask and answer questions about arguments and explanations.	X	X	X
2.Inq.4.d. Present a summary of an argument using print, oral, or digital technologies.	X	X	X
2.Inq.4.e. Identify and explain a range of local, regional, and global problems, and some ways in which people can and are trying to address these problems.	X	X	X
2.Inq.4.f. Use listening, consensus-building, and voting procedures to take action	X	X	X

in the classroom.			
<b>2-1. Working Together as a Community</b>			
2.Civ.1.a. Describe the roles and responsibilities of local officials.		X	X
2.Civ.5.a. Explain the role and responsibilities of a local government.		X	X
2.Civ.6.a. Describe how individuals and groups work interdependently to improve their community.	X	X	X
2.Civ.6.b. Describe how families are structured to accomplish common tasks, establish responsibilities, and fulfill roles.	X	X	X
2.Civ.8.a. Describe how democratic principles such as equality, fairness, respect for legitimate authority, participation by citizens, and rules are important to a community	X	X	X
2.Civ.10.a. Compare one's own perspective about a community issue with that of the perspective of others (e.g., differing opinions on park improvements, water use, recycling).		X	X
2.His.1.a. Employ chronological thinking to create a timeline of multiple events in one's life or community where people worked together.		X	X
2.His.4.a. Compare needs of the community today to its needs in the past (e.g., education, land use, safety, transportation, housing).	X	X	X
2.Geo.1.a. Demonstrate spatial awareness by creating a community map illustrating physical and human-made features.		X	X
2.Geo.2.a. Describe change over time in the local community using information from maps, graphs, and photographs.			X
2.Geo.3.a. Identify the cultural and environmental features of the local community using maps, globes, and representations of cultural practices.			X
<b>2-2. Leadership Past and Present</b>			
2.His.3.a. Develop questions about diverse individuals or groups recognized for contributions to their community or the United States past and present			X
2.His.6.a. Compare different accounts about the same person who or event that contributed to the community (e.g., book, diary, video, website).			X
2.His.9.a. Identify sources that can be used to learn about past and present national, state, and local leaders (e.g., articles, books, diaries, photographs, videos).			X
2.His.11.a. Identify the maker, date, and place of origin of historical sources about community leaders using information included in the source itself. .			X
2.His.12.a. Develop questions about a historical source as it pertains to a significant person, event or development.			X
2.His.14.a. Generate reasons about why national and state observances and celebrations have been established to honor individuals, groups, and events in the			X

United States			
<b>2-3. Decision-Making in our World</b>			
2.Geo.4.a. Explain how climate, weather, and environmental characteristics influence the decisions people make in their community.		X	X
2.Eco.1.a. Explain how scarcity and abundance influences decision-making in the community.		X	
2.Eco.7.a. Explain the costs of making goods within a community.		X	
2.Eco.12.a. Describe examples of goods and services the government provides (e.g., education, healthcare, roads, sewers, libraries, safety).		X	
2.Eco.13.a. Describe the types of human and physical capital resources used by governments and businesses to respond to community needs (e.g., education, machinery, skilled labor, training, transportation, workplaces).	X	X	
2.Civ.14.a. Describe how people have tried to improve communities to meet the needs of and create more equity for residents both past and present.	X	X	X

*If unit headings are formatted as a heading, then we can link a Table of Contents to better organize and provide faster access to each unit*

[Unit 1: Government](#)

[Unit 2: Rights and Responsibilities of Citizens in Society \(Bristol\)](#)

[Unit 3: People from The Past that Contribute to Society](#)

<b>Unit Title:</b>								
Unit 1: Government								
<b>Relevant Standards: Bold indicates priority</b>								
See above								
<b>Essential Question(s):</b>		<b>Enduring Understanding(s):</b>						
<p>Students will apply disciplinary concepts to investigate compelling questions such as:</p> <p>What is 'government' and what does the government do?</p> <p>How do people and groups decide how to make the world a different place?</p>		<p>Students will be able to identify how people work together through government to affect change while exploring the rights and responsibilities of active citizens within communities. Identifying American democratic principles and values such as liberty, freedom, justice, and equality will enable students to discover how their values and decisions impact others around them.</p>						
<b>Demonstration of Learning:</b>		<b>Pacing for Unit</b>						
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Development of questions</li> <li>• Planning inquiries</li> <li>• Evaluate sources</li> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>		6 weeks						
<b>Family Overview (link below)</b>		<b>Integration of Technology:</b>						
<a href="#">Grade 2 Unit 1 Family Memo</a>		<i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i>						
<b>Unit-specific Vocabulary:</b>		<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>						
<b>Academic Vocabulary</b> <table border="1"> <tr> <td>Generate</td> <td>Explain</td> <td>Compare</td> </tr> <tr> <td>Describe</td> <td>identify</td> <td>Evidence</td> </tr> </table>		Generate	Explain	Compare	Describe	identify	Evidence	Unit 1 Slide deck Capstone Grade 2 Box of books
Generate	Explain	Compare						
Describe	identify	Evidence						

**Content Vocabulary**

Advocacy	Action	Direct service
Indirect service	Research	Community
pros	cons	Wants
swapping	Needs	Freedom
Rights and responsibilities	Goods	Service
Increase	decrease	Saving
Spending	Scarce	available
Supply	Demand	

**Opportunities for Interdisciplinary Connections:**

CCCS. ELA-Reading: Informational Texts: Standards 1-10  
 CCCS. ELA Foundational Skills: Standard 4  
 CCSS.ELA-Writing: Standards 1-3, 5 and 8  
 CCCS. ELA- Speaking and Listening: Standards 1-6  
 CCCS. ELA-Language: Standards 1-4

**Anticipated misconceptions:**

Students may have misconceptions of:

- Reading and interpreting the key map
- Understanding the differences between needs and wants

**Connections to Prior Units:**

Students will enter Grade 2 having explored citizenship, needs of a community and geography.

Under Dimension 2, Grade 2 students will have engaged in learning (from Grade 1) to build on the following Grade 2 standards:

1.His.3.a.  
 1.His.6.a.  
 1.Geo.3.b  
 1.Civ.8.a.  
 1.Civ.8.b  
 1.Civ.12.a

The above listed standards are precursor standards for the grade 3 standards.

**Connections to Future Units:**

Students will build upon what they learned in unit 1 and expand on their knowledge of government through the study of Rights and Responsibilities of Citizens in unit 2 and the study of the People from the Past that Contribute to Society in unit 3.

**Differentiation through *Universal Design for Learning*****UDL Indicator**

3 Building Knowledge

**Teacher Actions:**

- Connect prior knowledge to new learning (3.1)

<p>9 Emotional Capacity</p> <p>1 Perception</p>	<ul style="list-style-type: none"> <li>• Highlight and explore patterns, critical features, big ideas, and relationships (3.2)</li> <li>• Cultivate multiple ways of knowing and making meaning (3.3)</li> <li>• Maximize transfer and generalization</li> </ul> <ul style="list-style-type: none"> <li>• Recognize expectations, beliefs, and motivations (9.1)</li> <li>• Develop awareness of self and others (9.2)</li> </ul> <ul style="list-style-type: none"> <li>• Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>
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**Supporting Multilingual/English Learners**

**Related CELP standards:**

An EL with guidance and support, can participate in short conversations, discussions, and written exchanges using words and phrases acquired in conversations, reading, and being read to.

**Learning Targets:**


- I can participate in conversations and discussions using academic and domain specific vocabulary

<b>Lesson Sequence</b>	<b>Learning Target</b>	<b>Success Criteria/ Assessment</b>	<b>Resources</b>
1-2	I can explore what life would be like with no rules.	I can make a list of pros and cons.  I can read & discuss the School with No Rules.	Game without rules  Text The School with No Rules
3	I can explore the history of money.	I can watch the video The Story of Money.	Video Story of Money
4	I can determine how leaders use rules and systems to lead.	I can take a position on rules and the money system.	What's your Position task
5	I can determine what makes a community.	I can learn about the characteristics of a community.  I can chart out responsibilities of citizens (recycling, keeping town/classroom clean).	
6	I can explore what taking action and advocacy means.	I can watch and discuss the video.	Understanding Advocacy & Action video

7	I can examine how a community is shaped by the different views of people and groups in the community.	I can explore what makes a community, traditions, and games around the world.	Books: What Makes a Community Traditions Around the World Games Around the World
8	I can examine why people take action in their community to make it a better place.	I can discover the different types of services (direct vs. indirect).	
9	I can examine how and why people take action in their community to make it a better place.	I can explore texts about recycling, helping communities and animals.	Capstone Books: How Can we Help out in our Community How can People help Communities
10	I can explain what a government is and what it does.	I can make a class chart of the purpose of government.	Poster paper for class chart Video on purpose of government
11	I can explain what freedom is and the rights and responsibilities of a citizen.	I can watch and discuss laws, rights and responsibilities.	Poster paper for Bill of Rights
12	I can explain what freedom is and the rights and responsibilities of a citizen.	I can read and discuss and learn about freedom and rights and responsibilities.	Capstone books: The U. S. Constitution The U. S. Presidency Election Day
13	I can examine economics.	I can explore spending and saving.	Video Economics for Kids
14	I can explain how my family makes decisions about what to buy and how to spend money.	I can explore making choices about spending vs. saving.	Capstone books: Learn About Money Make Money Choices Spend Money Save Money
15	I can explain how my school makes decisions about what to buy and how to spend money.	I can learn about the rules and process for spending money.	Video Budgets
16	I can examine the differences individuals and groups make by where they live and what they have.	I can determine the need for goods and movement within a town (Bristol).	
17	I can examine how the environment affects people's lives.	I can discuss physical features of the environment.  I can explore changes over time in an environment.	Capstone books: Desert communities past and present Plains communities past and present River communities past and present

			Arctic communities past and present
18	I can explore different ways students can make a difference in their community.	I can make a list of ways to help the community.	
19	I can decide how I would spend money.	I can determine how to spend the money for my cause.	
20	I can determine how to use natural resources in a healthy way.	I can plan out meal and determine where the goods come from.	Capstone Texts: From Farm to Fork
21	I can plan to interview a community helper with my class.	I can come up with interview questions.	
22-25	I can tell the classroom and school rules and why we need to follow them.	I can read and discuss the author's message.	Capstone Texts: What Rules Should We Have in Our Classroom? Why SHould We Keep Our Classroom Clean? How You Can Be a Good Friend
26	I can explain how people work together to make decisions.	I can determine easy and difficult choices.	Decision Video
27-30	I can take informed action.	I can develop an plan and solution for a group identified problem.	

<b>Unit Title:</b>	
Unit 2: Rights and Responsibilities of Citizens in Society (Bristol)	
<b>Relevant Standards: Bold indicates priority</b>	
See above	
<b>Essential Question(s):</b>	<b>Enduring Understanding(s):</b>
Students will apply disciplinary concepts to investigate compelling questions such as: How have people tried to improve communities over time? How have actions of people in the past influence our community today? What are the different roles people play in our local community and how does their work affect our lives and the decisions we make in our town?	Students will be able to identify the impact that people and groups have on our local community past and present. They will explore the various jobs and roles of citizens who contribute to our towns' story including the impact community workers have on our economy.

<b>Demonstration of Learning:</b>	<b>Pacing for Unit</b>																					
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>Development of questions</li> <li>Planning inquiries</li> <li>Evaluate sources</li> <li>Use Evidence</li> <li>Communicate conclusions</li> </ul>	6 weeks																					
<b>Family Overview (link below)</b>	<b>Integration of Technology:</b>																					
<p> <a href="#">Grade 2 Unit 2 Family Memo</a></p>	<p><i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i></p>																					
<b>Unit-specific Vocabulary:</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>																					
<p><b>Academic Vocabulary</b></p> <table border="1"> <tr> <td>Generate</td> <td>Explain</td> <td>Compare</td> </tr> <tr> <td>Describe</td> <td>identify</td> <td>Evidence</td> </tr> </table> <p><b>Content Vocabulary</b></p> <table border="1"> <tr> <td>Community</td> <td>Leaders</td> <td>Needs</td> </tr> <tr> <td>City council</td> <td>Mayor</td> <td>Wants</td> </tr> <tr> <td>Local government</td> <td>roles</td> <td>Responsibilities</td> </tr> <tr> <td>Superintendent</td> <td>Community helpers</td> <td>Characteristics &amp; traits</td> </tr> <tr> <td>Historical landmark</td> <td>Significance</td> <td></td> </tr> </table>	Generate	Explain	Compare	Describe	identify	Evidence	Community	Leaders	Needs	City council	Mayor	Wants	Local government	roles	Responsibilities	Superintendent	Community helpers	Characteristics & traits	Historical landmark	Significance		<p>Unit 2 Slide deck Capstone Grade 2 Box of books</p>
Generate	Explain	Compare																				
Describe	identify	Evidence																				
Community	Leaders	Needs																				
City council	Mayor	Wants																				
Local government	roles	Responsibilities																				
Superintendent	Community helpers	Characteristics & traits																				
Historical landmark	Significance																					
<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions:</b>																					
<p>CCCS. ELA-Reading: Informational Texts: Standards 1-10          CCCS. ELA Foundational Skills: Standard 4          CCSS.ELA-Writing: Standards 1-3, 5 and 8          CCCS. ELA- Speaking and Listening: Standards 1-6</p>	<p>Students may have misconceptions of: Roles and responsibilities of citizens in Bristol</p>																					

CCCS. ELA-Language: Standards 1-4			
<b>Connections to Prior Units:</b>		<b>Connections to Future Units:</b>	
<p>Students will enter Grade 2 having explored citizenship, needs of a community and geography. :</p> <p>Under Dimension 2, Grade 2 students will have engaged in learning (from Grade 1) to build on the following Grade 2 standards:</p> <p>1.His.3.a. 1.His.6.a. 1.Geo.3.b 1.Civ.8.a. 1.Civ.8.b 1.Civ.12.a</p> <p>The above listed standards are precursor standards for the grade 3 standards.</p>		<p>Students will build upon what they learned in unit 1 and expand on their knowledge of government through the study of Rights and Responsibilities of Citizens in unit 2 and the study of the People from the Past that Contribute to Society in unit 3.</p>	
<b>Differentiation through <u>Universal Design for Learning</u></b>			
<b>UDL Indicator</b>		<b>Teacher Actions:</b>	
3 Building Knowledge		<ul style="list-style-type: none"> <li>• Connect prior knowledge to new learning (3.1)</li> <li>• Highlight and explore patterns, critical features, big ideas, and relationships (3.2)</li> <li>• Cultivate multiple ways of knowing and making meaning (3.3)</li> <li>• Maximize transfer and generalization</li> </ul>	
9 Emotional Capacity		<ul style="list-style-type: none"> <li>• Recognize expectations, beliefs, and motivations (9.1)</li> <li>• Develop awareness of self and others (9.2)</li> </ul>	
1 Perception		<ul style="list-style-type: none"> <li>• Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>	
<b>Supporting Multilingual/English Learners</b>			
<b>Related <u>CELP standards:</u></b>		<b>Learning Targets:</b>	
An EL with guidance and support, can participate in short conversations, discussions, and written exchanges using words and phrases acquired in conversations, reading, and being read to.		<ul style="list-style-type: none"> <li>• I can participate in conversations and discussions using academic and domain specific vocabulary</li> </ul>	
<b>Lesson</b>	<b>Learning Target</b>	<b>Success Criteria/</b>	<b>Resources</b>

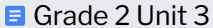
Sequence		Assessment	
1	I can explore types of communities.	I can learn about the characteristics of communities.	Communities for Kids video
2	I can explore the local government departments.	I can come up with questions for my local government.	
3	I can determine the role of the mayor of Bristol.	I can identify important town officials.	Mayor's website
4	I can determine the role of Bristol's City Council.	I can identify important town officials.	City Council website
5	I can determine the role of Bristol Public Schools.	I can identify the superintendent of schools.	
6	I can identify the different roles people play in our local community.  I can examine how the roles people play in our community affect our lives and decisions made in our town.	I can discuss the jobs and impact people make on a community.	Capstone books: Show Me Community Helpers How Can People Help Communities
7-10	I can explain what the rights and responsibilities of citizens within a community are.  I can explain what it means to make a difference in your community.	I can explore different jobs.  I can explore how members have an impact on a community.	Capstone books: Firefighters Help Police Officers Help Nurses Help Firefighters Help Librarians Help
11	I can brainstorm characteristics (personality traits/actions) that represent the qualities of people who have made a difference.	I can compile a list of characteristics and traits.	
12-14	I can brainstorm characteristics (personality traits/actions) that represent the qualities of people who have made a difference.  I can identify the people in Bristol's town government.	I can compile a list of characteristics and traits.	Bristol's City Council website
15-20	I can create a list of historical landmarks in Bristol and explain their significance.	I can create a list.  I can explore and discuss the following landmarks: <ul style="list-style-type: none"> <li>• Memorial Boulevard</li> <li>• Soldiers Monument in West</li> </ul>	Bristol Historical Society website  Map

		<p>Cemetery: Federal Hill:</p> <ul style="list-style-type: none"> <li>● The Clock Museum</li> <li>● The Carousel Museum</li> <li>● The Armory</li> <li>● Lake Compounce</li> <li>● Muzzy Field</li> </ul>	
21-23	I can locate historical landmarks on a map.	I can find important landmarks using the map of Bristol.	Map
24-25	<p>I can explain what wants and needs are.</p> <p>I can discuss how our needs and wants affect how communities are formed.</p> <p>I can discuss how our needs and wants function in a community.</p>	<p>I can explain how things we use get to our community.</p> <p>I can discuss services provided in our town.</p>	<p>Capstone Books:  Things I Want and Things I Need  Possessions  Clothes  A Place to live  Where Do Vegetables Come From?  Where Does Fruit Come From?  Where Do Grains Come From ?  How Do Animals Give Us Food?</p> <p>Needs/wants sorting activity</p>
26-30	I can take informed action.	<p>I can discuss community service opportunities.</p> <p>I can plan with a group.</p> <p>I can collaborate with my group to execute our plan.</p> <p>I can assess the impact of our group project.</p>	

**Unit Title:**

Unit 3: People from The Past that Contribute to Society

**Relevant Standards: Bold indicates priority**

See above																
<b>Essential Question(s):</b>	<b>Enduring Understanding(s):</b>															
<p>Students will apply disciplinary concepts to investigate compelling questions such as:</p> <p>How have the actions and beliefs of people throughout time made an impact on society?            What is your role in society?            Who are the people who have impacted Bristol in the past and how have they impacted the way we live today?</p>	<p>Students will be able to identify people who have made a difference in society, and how and why we remember their contributions from the past and make connections to our society and world today.</p>															
<b>Demonstration of Learning:</b>	<b>Pacing for Unit</b>															
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <p>Development of questions            Planning inquiries            Evaluate sources            Use Evidence            Communicate conclusions</p>	6 weeks															
<b>Family Overview (link below)</b>	<b>Integration of Technology:</b>															
<p> Grade 2 Unit 3</p>	<i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i>															
<b>Unit-specific Vocabulary:</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>															
<p><b>Academic Vocabulary</b></p> <table border="1"> <tr> <td>Generate</td> <td>Explain</td> <td>Compare</td> </tr> <tr> <td>Describe</td> <td>identify</td> <td>Evidence</td> </tr> </table> <p><b>Content Vocabulary</b></p> <table border="1"> <tr> <td>inventor</td> <td>Inventions</td> <td>Impact</td> </tr> <tr> <td>Honor</td> <td>Map</td> <td>culture</td> </tr> <tr> <td>Local</td> <td>roles</td> <td>Responsibilities</td> </tr> </table>	Generate	Explain	Compare	Describe	identify	Evidence	inventor	Inventions	Impact	Honor	Map	culture	Local	roles	Responsibilities	<p>Unit 3 Slide deck            Capstone Grade 2 Box of books</p>
Generate	Explain	Compare														
Describe	identify	Evidence														
inventor	Inventions	Impact														
Honor	Map	culture														
Local	roles	Responsibilities														



1 Perception		<ul style="list-style-type: none"> <li>Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>	
<b>Supporting Multilingual/English Learners</b>			
<b>Related <u>CELP standards:</u></b>		<b>Learning Targets:</b>	
An EL with guidance and support, can participate in short conversations, discussions, and written exchanges using words and phrases acquired in conversations, reading, and being read to.		<ul style="list-style-type: none"> <li>I can participate in conversations and discussions using academic and domain specific vocabulary</li> </ul>	
<b>Lesson Sequence</b>	<b>Learning Target</b>	<b>Success Criteria/ Assessment</b>	<b>Resources</b>
1	I can review what I have learned about the local government departments.	I can explore the rights and responsibilities in Bristol.	
2	I can generate a list of holidays that are celebrated.	I can make a list.	Calendar
3	I can explore and learn about historical social activists.  I can explain how individuals and people made a difference in our society.	I can learn about MLK Jr.	Our Heroes book
4	I can learn about American Inventors.	I can learn about different inventors and inventions (i.e. Samuel Morse, Alexander Graham Bell, Thomas Edison, and Orville and Wilbur Wright).	American Inventors video
5	I can identify who the people are that have impacted Bristol in the past.  I can discuss how Albert Rockwell from Bristol impacted the way we live today.	I can learn about Albert Rockwell.	Rockwell Park video
6	I can discuss how people have affected the culture and the environment we live in. (Town, state, country).	I can read and discuss the text History Around You.	Capstone book: History Around You
7	I can use a map to help me learn more about the significant changes people have made in our community.	I can compare and contrast landscapes.	Lake Compounce Map Bristol Historical Society Images  Google Earth
8-10	I can gather information about famous Americans and their achievements	I can create a comparative chart.	Capstone Books: Booker T. Washington

	<p>I can discuss how individuals made an impact on society with evidence. I can explain why and how we remember certain people.</p> <p>I can explain why we honor their thinking.</p>		<p>Mae Jemison Abraham Lincoln</p>
11-12	<p>I can explain the different goods and services made by individuals and groups. I can discuss how the economic choices of the people of the past have impacted the economic choices we make today.</p>	<p>I can read and discuss Madam C.J. Walker and George Washington Carver.</p>	<p>Scholastic Books: Madam C.J. Walker George Washington Carver</p>
13-14	<p>I can use multiple sources to research individuals that have contributed to society.</p>	<p>I can use video sources and books to compare and gather information.</p>	<p>BrainPop access I.e. Community helpers Rosa Parks MLK Jr. Ruby Bridges Harriet Tubman</p>
15-19	<p>I can explain what it means to be a changemaker.</p>	<p>I can create an action plan for an identified community need.</p>	<p>Video changemaker</p>
20-21	<p>I can explain how Martin Luther King's Vision changed the world.</p>	<p>I can read and discuss the facts within the article.</p>	<p>Article MLK Jr.</p>
22	<p>I can determine a service project to help my community.</p>	<p>I can create an action plan to help Bristol.</p>	

**Curriculum Writing Notes:**

Address UDL and CELP AFTER learning targets are written, in process they'll be developed after all learning targets and success criteria. These targets with UDL and CELP will be a model of what could/should be done for all learning targets but can't be completed (to keep the process concise). Through the curriculum writing process, teachers can build a deeper understanding of how to approach this differentiation.

Enduring understanding/Essential questions may be easier to develop at the end of the process.

Committees can alter the format but these are the required pieces.

Course Title:	Content Area:	Grade Level:	Credit (if applicable)
Grade 3 Social Studies	Social Studies	Third Grade	N/A
Course Description:			
In Grade 3, students examine how Connecticut's history has shaped its identity. Students will investigate Connecticut's cultural diversity, state constitution and government, and economic growth over time using disciplinary tools and resources that support planning and developing inquiries, gathering relevant information, and communicating knowledge and ideas about Connecticut history.			
Aligned Core Resources:		Connection to the <a href="#">BPS Vision of the Graduate</a>	
Unit 1 The Impact of Indigenous People and Geography on Bristol slide deck  Unit 2: The Structure and Function of Government slide deck  Unit 3: The Role of Bristol and Connecticut in America's Story Slide deck		Communication <ul style="list-style-type: none"> <li>Articulates thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts</li> <li>Utilize multiple media and technologies, and know how to judge their effectiveness as well as assess their impact</li> </ul> Empathy <ul style="list-style-type: none"> <li>Demonstrating understanding of others perspectives and needs</li> <li>Understand the concept of community as a means for supporting others in need</li> </ul> Critical Thinking and Problem Solving <ul style="list-style-type: none"> <li>Collect, assess and analyze relevant information</li> </ul> Civic Literacy <ul style="list-style-type: none"> <li>Understand the local and global implications of civic decisions</li> <li>Understand other nations and cultures including the use of non-English language</li> </ul>	
Additional Course Information: <i>Knowledge/Skill Dependent courses/prerequisites</i>		Link to <a href="#">Completed Equity Audit</a>	
How has Connecticut's history shaped the state's identity?		<a href="#">Grade 3 Social Studies Equity Curriculum Review</a>	

<p>What was the significance of Connecticut's contribution to United States history?</p> <p>Students will build their understanding through:</p> <ol style="list-style-type: none"> <li>1. Cultural Communities-The Impact of Indigenous People and Geography on Bristol</li> <li>2. The Structure and Function of Government</li> <li>3. The Role of Bristol and Connecticut in America's Story</li> </ol>	
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**Standard Matrix**

[CT Elementary and Secondary Social Studies Standards](#)

District Learning Expectations and Standards	Unit 1	Unit 2	Unit 3
<b>Dimension 1- Develop Questions and Plan Inquiries</b>			
3.Inq.1.a. Explain why compelling questions about Connecticut and Local History are important to others (e.g., peers, adults).	X	X	X
3.Inq.1.b. Explain how supporting questions help answer compelling questions in an inquiry about Connecticut history.	X	X	X
3.Inq.1.c Determine the kinds of sources that will be helpful in answering compelling and supporting questions, taking into consideration the different opinions people have about how to answer the question.	X	X	X
<b>Dimension 2- Apply Disciplinary Concepts and Tools</b>			
3.Inq.2.a. Apply disciplinary knowledge and practices to demonstrate an understanding of social studies content.	X	X	X
<b>Dimension 3- Evaluate Sources and Use Evidence</b>			
3.Inq.3.a. Gather relevant information about Connecticut history.	X	X	X
3.Inq.3.b. Identify evidence from multiple sources in response to a compelling question about Connecticut history.	X	X	X
3.Inq.3.c. Use evidence to develop claims in response to a compelling question about a significant person or event in Connecticut history.	X	X	X
<b>Dimension 4- Communicate Conclusions and Take Informed Action</b>			
3.Inq.4.a. Construct arguments using claims and evidence from multiple sources about Connecticut history.	X	X	X
3.Inq.4.b. Construct explanations using reasoning, correct sequence, examples, and details with relevant information and data.	X	X	X
3.Inq.4.c. Critique arguments and explanations.	X	X	X
3.Inq.4.d. Present a summary of arguments and explanations to others using print, oral, and digital technologies.	X	X	X

3.Inq.4.e. Explain the challenges and opportunities, both present and past, in addressing local, regional, and global problems in Connecticut history.	X	X	X
3.Inq.4.f. Use a range of deliberative and democratic procedures to evaluate and implement strategies to address problems in classrooms and schools	X	X	X
<b>3-1. State Constitution and Government</b>			
3.Civ.1.a. Identify the responsibilities and powers of government officials at the state and local level.	X	X	X
3.Civ.2.a. Explain how democracy relies on the responsible participation of individuals and groups within school, local and state communities.	X	X	X
3.Civ.4.a. Explain the significance of the sovereignty of Northeastern Woodland Native American tribes of Connecticut.	X	X	X
3.Civ.4.b. Explain how a bill becomes a law in Connecticut	X	X	X
3.Civ.5.a. Compare the origins, functions, and structures of the Constitution of the State of Connecticut while noting similarities and differences to the United States Constitution.		X	
3.Civ.6.a. Describe how people benefit from and face challenges working together in various settings to address problems.		X	
3.Civ.6.b. Describe ways in which families and communities in early United States History were organized to promote mutual benefit and address challenges.	X		
3.Civ.12.a. Explain how people influence rules and laws in Connecticut and how rules and laws influence people. .		X	X
3.Civ.13.a. Describe how Connecticut laws address public needs and concerns.		X	X
3.Eco.12.a. Explain how services in communities are paid for by local, state, and federal taxes. .		X	X
<b>3-2. Cultural Communities in Connecticut Present and Past</b>			
3.Geo.3.a. Use both local and state maps of Connecticut to describe location of cultural and environmental characteristics over time.	X	X	X
3.Geo.4.a. Explain the impact of diverse cultures within a local community and throughout Connecticut.	X	X	X
3.Geo.4.b. Explain the ways in which Northeastern Woodland Native American tribes and ethnic enclaves of Connecticut have worked to preserve their cultural identity over time.	X		
3.His.2.a. Compare the regional and cultural characteristics of Northeastern Woodland Native American tribes of Connecticut, present and past.	X		
3.His.2.b. Describe the lived experiences of diverse cultural groups by comparing life in specific historical time periods to life in Connecticut today.	X		

3.His.3.a. Generate questions about individuals and groups who represented communities committed to change in Connecticut.	X	X	X
3.His.10.a. Compare information provided by different historical sources about an event or issue in Connecticut's history.	X	X	X
3.His.11.a. Make inferences about the intended audience and purpose of a variety of historical sources from information within the source itself.	X	X	X
<b>3-3. Innovation, Industry, and Economic Growth</b>			
3.Geo.2.a. Use maps and other visual representations to describe the relationship between the locations of places and regions throughout Connecticut and their environmental characteristics.	X	X	X
3.Geo.6.a. Describe how environmental and cultural characteristics influence where people live and work in Connecticut .	X	X	X
3.Geo.8.a. Explain how the location of Connecticut industries has been influenced by access to natural resources over time.	X	X	X
3.Eco.3.a. Identify examples of resources in Connecticut that are used to produce goods and services.	X	X	X
3.Eco.9.a. Describe the role of financial institutions in Connecticut.	X	X	X
3.Eco.13.a. Describe the ways in which Connecticut industries increase productivity by investing in education and technology.	X	X	X
3.His.1.a. Employ chronological thinking to create a chronological sequence of events illustrating developments in innovations and industries throughout Connecticut.	X	X	X
3.His.9.a. Summarize the information presented in multiple historical sources in order to explain the importance of a notable innovator or innovation in Connecticut.	X	X	X
3.His.12.a. Generate questions about multiple historical sources and their relationship to important economic developments in Connecticut.	X	X	X

### Unit Links

*If unit headings are formatted as a heading, then we can link a Table of Contents to better organize and provide faster access to each unit*

[Unit 1: Cultural Communities-The Impact of Indigenous People and Geography on Bristol](#)

[Unit 2: The Structure and Function of State and Local Government](#)

[Unit 3: The Role of Bristol and Connecticut in America's Story](#)

<b>Unit Title:</b>	
Unit 1: Cultural Communities-The Impact of Indigenous People and Geography on Bristol	
<b>Relevant Standards: Bold indicates priority</b>	
See above	
<b>Essential Question(s):</b>	<b>Enduring Understanding(s):</b>
<ul style="list-style-type: none"> <li>• How has our local community and its diverse groups of citizens contributed to Connecticut's story, past and present?</li> <li>• In what ways has our town and Connecticut changed and/or stayed the same over time?</li> <li>• What is the significance of Connecticut's contribution to America's story?</li> </ul>	<p>This unit requires the study of Bristol and Connecticut's geography and impact on America's story. Students use local/ state maps to learn specifically about the cultural and environmental characteristics of the state of Connecticut and Bristol. The required understandings for this unit include:</p> <ul style="list-style-type: none"> <li>• The use of both local and state maps of Connecticut helps to describe the location of cultural and environmental characteristics over time.</li> <li>• The diverse cultures within local communities throughout Connecticut have impacted Connecticut's culture.</li> <li>• There are ways in which Northeastern Woodland Native American tribes and ethnic enclaves of Connecticut have worked to preserve their cultural identity over time.</li> <li>• There are regional and cultural characteristics of each Northeastern Woodland Native American tribes of Connecticut, present and past.</li> <li>• There are distinct individuals and groups who represent communities committed to change in Connecticut.</li> <li>• The role of Bristol in shaping Connecticut's history</li> </ul>
<b>Demonstration of Learning:</b>	<b>Pacing for Unit</b>
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Development of questions</li> <li>• Planning inquiries</li> <li>• Evaluate sources</li> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>	6 weeks
<b>Family Overview (link below)</b>	<b>Integration of Technology:</b>
<a href="#">Family Overview- Grade 3 Unit 1</a>	<i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i>

Unit-specific Vocabulary:	Aligned Unit Materials, Resources, and Technology (beyond core resources):																								
<p><b>Academic Vocabulary</b></p> <table border="1"> <tr> <td>Generate</td> <td>Explain</td> <td>Compare</td> </tr> <tr> <td>Describe</td> <td>identify</td> <td>Evidence</td> </tr> <tr> <td>summarize</td> <td>Opinion</td> <td>Generate</td> </tr> <tr> <td>Gather</td> <td></td> <td></td> </tr> </table> <p><b>Content Vocabulary</b></p> <table border="1"> <tr> <td>Culture</td> <td>Landscape</td> <td>Diverse</td> </tr> <tr> <td>regions</td> <td>Environmental characteristics</td> <td>Cultural identity</td> </tr> <tr> <td>Industries</td> <td>resources</td> <td>transportation</td> </tr> <tr> <td>innovation</td> <td>Institutions</td> <td></td> </tr> </table>	Generate	Explain	Compare	Describe	identify	Evidence	summarize	Opinion	Generate	Gather			Culture	Landscape	Diverse	regions	Environmental characteristics	Cultural identity	Industries	resources	transportation	innovation	Institutions		<p>Unit 1 Note Catcher</p>
Generate	Explain	Compare																							
Describe	identify	Evidence																							
summarize	Opinion	Generate																							
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Culture	Landscape	Diverse																							
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<ul style="list-style-type: none"> <li>● CCSS.ELA-Reading: Informational Texts: Standards 1-10</li> <li>● CCSS.ELA-Writing: Standards 1-2 and 7-10</li> <li>● CCSS.ELA-Speaking and Listening: Standards 1-6</li> <li>● CCSS.ELA-Language: Standards 1-3</li> </ul>	<p>Students may have misconceptions of:</p> <ul style="list-style-type: none"> <li>● Connecticut being part of New England</li> <li>● That the land in Connecticut was unmanaged before European contact</li> </ul>																								
Connections to Prior Units:	Connections to Future Units:																								
<p>Students will enter Grade 3 having explored these course questions in their Grade 2 coursework:</p> <ul style="list-style-type: none"> <li>● How do people in communities work together?</li> <li>● How do leaders make decisions?</li> </ul> <p>Under Dimension 2, Grade 3 students will have engaged in learning (from Grade 2) to build on the following Grade 3 standards:</p> <ul style="list-style-type: none"> <li>● 2. His.3. a. which is a precursor standard to 3. His.3. a.</li> <li>● 2. His.6. a. which is a precursor standard to 3. His.10. a</li> <li>● 2.His.11. a., which is the precursor to standard 3.His.11. a</li> </ul>	<p>As students continue to engage in Social Studies Content throughout the year, the work that they do in Unit 2 will inform their work in the final unit: Innovation, Industry, and Economic Growth. Grade 3 students will apply the knowledge and skills they built in the first two units to determine how Connecticut’s history and cultural diversity has shaped its identity and sparked innovation in the geographical and economic structure of every town. Students will also learn about the impact of Bristol. They will also be familiar with the disciplinary tools and resources that support the development of inquiries and gathering of relevant information.</p>																								
Differentiation through <a href="#">Universal Design for Learning</a>																									

UDL Indicator	Teacher Actions:
3 Building Knowledge	<ul style="list-style-type: none"> <li>Connect prior knowledge to new learning (3.1)</li> <li>Highlight and explore patterns, critical features, big ideas, and relationships (3.2)</li> <li>Cultivate multiple ways of knowing and making meaning (3.3)</li> <li>Maximize transfer and generalization</li> </ul>
9 Emotional Capacity	<ul style="list-style-type: none"> <li>Recognize expectations, beliefs, and motivations (9.1)</li> <li>Develop awareness of self and others (9.2)</li> </ul>
1 Perception	<ul style="list-style-type: none"> <li>Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>

### Supporting Multilingual/English Learners

Related <b>CELP standards:</b>	Learning Targets:
An EL with guidance and support, can participate in short conversations, discussions, and written exchanges using words and phrases acquired in conversations, reading, and being read to, and (at grade 3) academic and domain specific words.	<ul style="list-style-type: none"> <li>I can participate in conversations and discussions using academic and domain specific vocabulary</li> </ul>

Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
1	I can learn about the state of Connecticut and its characteristics.	I can read the text Connecticut. I can identify 4 characteristics of Connecticut.	Unit 1 Note Catcher
2	I can identify the geographical features of Connecticut and its impact on our state.	I can identify geographical features in Connecticut. I can explain how the features impact our state.	Unit 1 Note Catcher
3	I can locate the territories of indigenous people throughout the world.	I can locate on a map territories of indigenous people that have lived in what is now Connecticut. I can find who lived in the Bristol area.	Unit 1 Note Catcher
4	I can discuss the relationship between indigenous communities and their environment.	I can discuss the relationship between Indigenous communities and their environment . I can discuss ways in which a map represents communities and their	Unit 1 Note Catcher

		land.	
5	I can explore the Connecticut River and its impact on indigenous people and settlement.	I can listen to the article and take notes.  I can use my notes to answer the questions and make a prediction.  I can understand how the Connecticut River impacted the Indigenous people and their settlement.	Unit 1 Note Catcher
6	I can explore the Farmington River and its impact on indigenous people and settlement.	I can listen to the article and take notes.  I can use my notes to answer the questions.  I can understand how the Farmington River impacted the Indigenous people and their settlement.	Unit 1 Note Catcher
7	I can describe the relationship between Indigenous people and European settlers in Connecticut.	I can read the article.  I use information from the text to answer the questions.  I can understand the relationship between Indigenous people and European settlers.	Unit 1 Note Catcher
8-9	I can learn about and understand the early settlement of Bristol, CT.	I can understand the early settlement of Bristol, CT.  I can tell how they worked together.  I can identify early settlers of Bristol.	Unit 1 Note Catcher
10	I can explore the businesses that developed in our community.	I can understand why business grew in Bristol, CT.  I can compare our community in the past to today.	Unit 1 Note Catcher
11	I can explore historical landmarks on the Federal Hill area and how this contributed to the growth of Bristol, CT.	I identified noticeable differences between historical and present day pictures.  I learned about The Federal Hill Area of Bristol.	Unit 1 Note Catcher
12	I can explore the settlement and establishment of the Barnes Family.	I can tell facts about where the Barnes family settled and how they	Unit 1 Note Catcher

	and how they contributed to the growth of Bristol, CT.	established themselves in Bristol.  I identified noticeable differences between historical and present day pictures.	
13	I can explore the settlement and establishment of the Manross Family and how they contributed to the growth of Bristol, CT.	I can tell facts about where the Manross family settled and how they established themselves in Bristol.  I identified noticeable differences between historical and present day pictures.	Unit 1 Note Catcher
14	I can explore the settlement and establishment of the Ingraham Family and how they contributed to the growth of Bristol, CT.	I can tell facts about where the Ingraham family settled and how they established themselves in Bristol.  I identified noticeable differences between historical and present day pictures.	Unit 1 Note Catcher
15	I can explore the settlement and establishment of the Sessions Family and how they contributed to the growth of Bristol, CT.	I can tell facts about where the Sessions family settled and how they established themselves in Bristol.  I identified noticeable differences between historical and present day pictures.	Unit 1 Note Catcher
16	I can explore the settlement and establishment of the Rockwell Family and how they contributed to the growth of Bristol, CT.	I can tell facts about where the Rockwell family settled and how they established themselves in Bristol.  I identified noticeable differences between historical and present day pictures.	Unit 1 Note Catcher
17	I can explore the settlement and establishment of the Page Family and how they contributed to the growth of Bristol, CT.	I can tell facts about where the Page family settled and how they established themselves in Bristol.  I identified noticeable differences between historical and present day pictures.	Unit 1 Note Catcher
18	I can explore the Bristol Public Library, a historical landmark and how it contributed to the growth of Bristol, CT.	I can tell facts about the historical landmark the Bristol Public Library.  I identified how the library plays an important role in the development of the history of Bristol.	Unit 1 Note Catcher

19	I can explore Memorial Boulevard, a historical landmark and how it contributed to the growth of Bristol, CT.	I can tell facts about the historical landmarks on the Boulevard.  I identified how the Boulevard plays an important role in the development of the history of Bristol.	Unit 1 Note Catcher
20	I can explore the Muzzy Field, a historical landmark and how it contributed to the growth of Bristol, CT.	I buddy read the Muzzy Field article with my partner using a reading strategy of our choice.  I identified the history of Muzzy Field after reading the article with my partner.	Unit 1 Note Catcher
21	I can explore Rockwell Park, a historical landmark in Bristol, CT.	I buddy read the Rockwell Park article with my partner using a reading strategy of our choice.  I identified the history of Rockwell Park after reading the article with my partner.	Unit 1 Note Catcher
22	I can explore Page Park, a historical landmark in Bristol, CT.	I identified the history of Page Park.  I can tell facts about what I have learned.	Unit 1 Note Catcher
23	I can reflect on all I have learned about Bristol, CT.	I can determine if I was an early settler if I would have settled in Bristol, CT.  I can share my thoughts with my partner.	Unit 1 Note Catcher

**Unit Title:**

Unit 2: The Structure and Function of State and Local Government

**Relevant Standards: Bold indicates priority**

Content Standards: See above.

**Essential Question(s):**

- What is the impact of governmental decisions made at the state and local levels?
- How can individual citizens impact Connecticut's

**Enduring Understanding(s):**

This unit requires students to learn specifically about the roles and responsibilities of the government, the origin and function of Connecticut's state

<p>government?</p>	<p>Constitution, the principles of democracy, and the significance and the impact of rules/laws in Connecticut. The required understandings for this unit include:</p> <ul style="list-style-type: none"> <li>• There are specific responsibilities and powers of government officials at the state and local level.</li> <li>• There are distinct origins, functions, and structures of government established by Connecticut’s Constitution and similarities and differences to the United States Constitution.</li> <li>• People influence rules and laws in Connecticut and rules and laws influence people and address public needs and concerns.</li> <li>• The cultural influences of diverse communities within Connecticut have shaped local customs, celebrations, and societal values.</li> <li>• Bristol has and continues to contribute to Connecticut’s history.</li> </ul>						
<p><b>Demonstration of Learning:</b></p>	<p><b>Pacing for Unit</b></p>						
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Development of questions</li> <li>• Planning inquiries</li> <li>• Evaluate sources</li> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>	<p>6 weeks</p>						
<p><b>Family Overview (link below)</b></p>	<p><b>Integration of Technology:</b></p>						
<p><a href="#">Family Overview - Grade 3 Unit 2</a></p>	<p><i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i></p>						
<p><b>Unit-specific Vocabulary:</b></p>	<p><b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b></p>						
<p><b>Academic Vocabulary</b></p> <table border="1"> <tr> <td>Identify</td> <td>Explain</td> <td>Compare</td> </tr> <tr> <td>Describe</td> <td></td> <td></td> </tr> </table> <p><b>Content Vocabulary</b></p>	Identify	Explain	Compare	Describe			<p>Unit 2 Slide deck Unit 2 Note Catcher</p>
Identify	Explain	Compare					
Describe							

Sovereignty	Constitution	Influence	
Organize	Northeastern Woodland Native American Tribes	Bill	
Law	Origin		
Attorney general	comptroller	Defendant	
district	Executive branch	evidence	
General assembly	governor	Judicial branch	
Jury	Legislative branch	Lieutenant governor	
plaintiff	representative	Secretary of state	
senator	statues	testimony	
treasurer	trial	Veto	
<b>Opportunities for Interdisciplinary Connections:</b>			<b>Anticipated misconceptions:</b>
<ul style="list-style-type: none"> <li>● CCSS.ELA-Reading: Informational Texts: Standards 1-10</li> <li>● CCSS.ELA-Writing: Standards 1-2 and 7-10</li> <li>● CCSS.ELA-Speaking and Listening: Standards 1-6</li> <li>● CCSS.ELA-Language: Standards 1-3</li> </ul>			<p>Students may have misconceptions of:</p> <ul style="list-style-type: none"> <li>● That the land in Connecticut was unmanaged before European contact</li> <li>● The process of how a bill becomes law</li> </ul>
<b>Connections to Prior Units:</b>			<b>Connections to Future Units:</b>
<p>Students will enter Grade 3 having explored these course questions in their Grade 2 coursework:</p> <ul style="list-style-type: none"> <li>● How do people in communities work together?</li> <li>● How do leaders make decisions?</li> </ul> <p>Under Dimension 2, Grade 3 students will have engaged in learning (from Grade 2) to build on the following Grade 2 standards:</p> <ul style="list-style-type: none"> <li>● 2.Civ.1. a., which is a precursor to standard 3. Civ.1.a</li> <li>● 2.Civ.5. a., which is a precursor to standard 3. Civ.5.a</li> </ul>			<p>The knowledge students gained in unit 1 around the Geography of Bristol and Connecticut will be expended upon as they learn about the structure of state and local government in unit 2. This will help students with their studies in unit 3 as they dive deeper into Bristol and Connecticut's role in America's story.</p>

<ul style="list-style-type: none"> <li>• 2.Civ.6. a., which is a precursor to standard 3. Civ.6.a</li> <li>• 2.Civ.6. b., which is a precursor to standard 3. Civ.6.b</li> <li>• 2.Eco.12. a., which is a precursor to standard 3. Eco.12. a</li> </ul>	
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**Differentiation through *Universal Design for Learning***

<b>UDL Indicator</b>	<b>Teacher Actions:</b>
3 Building Knowledge	<ul style="list-style-type: none"> <li>• Connect prior knowledge to new learning (3.1)</li> <li>• Highlight and explore patterns, critical features, big ideas, and relationships (3.2)</li> <li>• Cultivate multiple ways of knowing and making meaning (3.3)</li> <li>• Maximize transfer and generalization</li> </ul>
9 Emotional Capacity	<ul style="list-style-type: none"> <li>• Recognize expectations, beliefs, and motivations (9.1)</li> <li>• Develop awareness of self and others (9.2)</li> </ul>
1 Perception	<ul style="list-style-type: none"> <li>• Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>

**Supporting Multilingual/English Learners**

<b>Related <i>CELP standards:</i></b>	<b>Learning Targets:</b>
An EL with guidance and support, can participate in short conversations, discussions, and written exchanges using words and phrases acquired in conversations, reading, and being read to, and (at grade 3) academic and domain specific words.	<ul style="list-style-type: none"> <li>• I can participate in conversations and discussions using academic and domain specific vocabulary</li> </ul>

<b>Lesson Sequence</b>	<b>Learning Target</b>	<b>Success Criteria/ Assessment</b>	<b>Resources</b>
1	I can identify the significance of the Connecticut State Capitol in Hartford.	I can learn facts about our state capitol.  I can take quick notes demonstrating what I learned.	Video Unit 2 Note Catcher
2	I can identify the significance of the Connecticut Constitution.	I can learn facts about our state constitution.  I can take quick notes demonstrating what I learned.	Video Unit 2 Note Catcher
3	I can identify symbolic representations of Connecticut.	I identified symbols of CT.  I took quick notes	Unit 2 Note Catcher

		demonstrating what I learned about state symbols.  I can learn more about the symbols by researching.	
4	I can identify significant individuals involved in the development of the state capital.	I can learn about Nathan Hale, Prudence Crandall, and William Buckingham and take quick notes.  I can research these people using a variety of sources.	Unit 2 Note Catcher Video
5	I can identify features of the Connecticut State Capitol.	I can learn about the North Lobby Tour, and Hall of Flags.  I can take quick notes as I watch the videos.	Unit 2 Note Catcher Video Video
6	I can create a brochure to display information about the Connecticut State Capitol.	I explored the information about the state capitol.  I selected a focus for my brochure.  I created a paper or digital brochure to encourage others to learn more about the state capitol.	Enrichment Activity Example of Brochure
7	I can identify the three branches of government in Connecticut and their responsibilities.	I can identify the 3 branches of government.  I can explain the responsibilities of each branch of government.	Unit 2 Note Catcher Video
8	I can identify the executive branch of government in Connecticut and their responsibilities.	I can identify the 3 branches of government.  I can explain the responsibilities of each branch of government.	Unit 2 Note Catcher Executive Branch Presentation
9	I can identify the judicial branch of government in Connecticut and their responsibilities.	I can identify the roles and responsibilities of the judicial branch.	Unit 2 Note Catcher Video
10	I can identify the roles and responsibilities of the legislative branch of government in Connecticut.	I can identify the roles and responsibilities of the legislative branch of government in CT.	Unit 2 Note Catcher Website
11	I can identify how a bill becomes a law with the help of government	I can identify how a bill becomes a law.	Unit 2 Note Catcher

	representative.		Video
12	I can identify symbolic representations for Bristol, CT.	I identified Bristol symbols. I identified the symbolic meaning of the Bristol All Heart logo.	Unit 2 Note Catcher Video
13	I can identify the development of local governments.	I identified how the local government was formed. I identified elected representatives for the city of Bristol.	Unit 2 Note Catcher
14	I can identify the role of the mayor as a leader in the Bristol community.	I identified the role of the mayor of Bristol. I followed schoolwide expectations during our meet and greet with the mayor. I identified how I can help my Bristol community.	Unit 2 Note Catcher
15	I can determine what citizens need from local governments.	I identified community services that impact the citizens of Bristol. I identified what is taxed in the city of Bristol. I identified the purpose of permits for properties and business.	Unit 2 Note Catcher
16	I can become an active citizen in my community.	I can explain what an active citizen is. I can identify a community issue that I am concerned about. I can craft a letter to the appropriate audience and support my opinion with a solution.	Unit 2 Note Catcher Be an Active Citizen in your Community by Helen Mason
17	I can contribute to my Bristol community by developing an action plan to support a nonprofit organization.	We identified a nonprofit organization to focus on. We developed a plan of action to advocate and support our	Unit 2 Note Catcher

		nonprofit.	
		We executed our plan of action.	

<b>Unit Title:</b>	
Unit 3: The Role of Bristol and Connecticut in America's Story	
<b>Relevant Standards: Bold indicates priority</b>	
Content Standards: See Above	
<b>Essential Question(s):</b>	<b>Enduring Understanding(s):</b>
<ul style="list-style-type: none"> <li>Who were some of Bristol's notable citizens?</li> <li>What is your role as a citizen of Bristol and why is it important for you to take an active role?</li> <li>What are Bristol's famous landmarks and why are they important?</li> <li>Why was Bristol's industrial beginning so important for Bristol's future?</li> </ul>	<p>This unit requires students and teachers to learn specifically about the diverse geographical and economic landscape of Connecticut. The required understandings for this unit include:</p> <ul style="list-style-type: none"> <li>Environmental and cultural characteristics influence where people live and work in Bristol and Connecticut.</li> <li>The significance of the location of Connecticut industries has been influenced by access to natural resources over time.</li> <li>The importance of a notable innovator or innovation in Bristol and Connecticut can be analyzed through the consideration of important information presented in multiple historical sources.</li> <li>Important economic developments in Bristol and Connecticut can be investigated by generating questions about multiple historical sources.</li> <li>The diverse cultural traditions and practices in Bristol and Connecticut have contributed to Connecticut's rich history and have helped to shape the identity of Connecticut's communities.</li> </ul>
<b>Demonstration of Learning:</b>	<b>Pacing for Unit</b>
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>Development of questions</li> <li>Planning inquiries</li> <li>Evaluate sources</li> <li>Use Evidence</li> <li>Communicate conclusions</li> </ul>	6 weeks

Family Overview (link below)	Integration of Technology:																		
<a href="#">Family Overview - Grade 3 Unit 3</a>	<i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i>																		
Unit-specific Vocabulary:	Aligned Unit Materials, Resources, and Technology (beyond core resources):																		
<p><b>Academic Vocabulary</b></p> <table border="1"> <tr> <td>Describe</td> <td>Explain</td> <td>Identify</td> </tr> <tr> <td>Evidence</td> <td>Summarize</td> <td>Opinion</td> </tr> <tr> <td>Generate</td> <td>Gather</td> <td></td> </tr> </table> <p><b>Content Vocabulary</b></p> <table border="1"> <tr> <td>Regions</td> <td>Environmental Characteristics</td> <td>Cultural Identity</td> </tr> <tr> <td>Industries</td> <td>Resources</td> <td>Transportation</td> </tr> <tr> <td>Innovation</td> <td>Financial Institutions</td> <td>Educational Institutions</td> </tr> </table>	Describe	Explain	Identify	Evidence	Summarize	Opinion	Generate	Gather		Regions	Environmental Characteristics	Cultural Identity	Industries	Resources	Transportation	Innovation	Financial Institutions	Educational Institutions	Unit 3 Slide deck Note catcher
Describe	Explain	Identify																	
Evidence	Summarize	Opinion																	
Generate	Gather																		
Regions	Environmental Characteristics	Cultural Identity																	
Industries	Resources	Transportation																	
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Connections to Prior Units:	Connections to Future Units:																		
<p>Students will enter Grade 3 having explored these course questions in their Grade 2 coursework:</p> <ul style="list-style-type: none"> <li>● How do people in communities work together?</li> <li>● How do leaders make decisions?</li> </ul> <p>Under Dimension 2, Grade 3 students will have engaged in learning (from Grade 2) to build on the following Grade 2 standards:</p> <ul style="list-style-type: none"> <li>● 2.Civ.1. a., which is a precursor to standard 3. Civ.1.a</li> <li>● 2.Civ.5. a., which is a precursor to standard 3. Civ.5.a</li> <li>● 2.Civ.6. a., which is a precursor to standard 3. Civ.6.a</li> <li>● 2.Civ.6. b., which is a precursor to standard 3. Civ.6.b</li> <li>● 2.Eco.12. a., which is a precursor to standard 3. Eco.12. a</li> </ul>	The knowledge students gained in unit 1 & 2 will continue to be built upon with the story of Bristol and Connecticut and the role and impact on America's Story.																		
Differentiation through <i>Universal Design for Learning</i>																			

UDL Indicator	Teacher Actions:
3 Building Knowledge	<ul style="list-style-type: none"> <li>Connect prior knowledge to new learning (3.1)</li> <li>Highlight and explore patterns, critical features, big ideas, and relationships (3.2)</li> <li>Cultivate multiple ways of knowing and making meaning (3.3)</li> <li>Maximize transfer and generalization</li> </ul>
9 Emotional Capacity	<ul style="list-style-type: none"> <li>Recognize expectations, beliefs, and motivations (9.1)</li> <li>Develop awareness of self and others (9.2)</li> </ul>
1 Perception	<ul style="list-style-type: none"> <li>Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>

### Supporting Multilingual/English Learners

Related <i>CELP standards</i> :	Learning Targets:
An EL with guidance and support, can participate in short conversations, discussions, and written exchanges using words and phrases acquired in conversations, reading, and being read to, and (at grade 3) academic and domain specific words.	<ul style="list-style-type: none"> <li>I can participate in conversations and discussions using academic and domain specific vocabulary</li> </ul>

Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
1	I can explore how clock making is an essential part of the growth and development of Bristol, CT.	<p>I can identify how clock making started.</p> <p>I can determine how clock making helped with the development of Bristol.</p>	Early Bristol Reading Clock Museum Reading
2	I can explore how the industries in Bristol prospered.	I can determine why the industries in Bristol prospered.	Industrial Beginnings of Bristol reading
3	I can explore how the Rockwell family established New Departure and the success of their inventions.	I can determine how the innovations were successful.	
4	I can discover how downtown Bristol was built.	I can explore and observe photographs of past and present Bristol, CT.	Downtown photographs
5	I can learn about the Trolley System that was used in the past.	I can explore photographs from the past.	Photographs
6	I can determine the beginnings of Lake	I can explore photographs from	Photographs

	Compounce.	the past.	
7	I can generate questions about individuals who have shaped significant historical changes and continuities.	I can explore influential and significant individuals from Bristol.  I can use a timeline to identify historical events in Bristol's history.	Artifacts & photographs
8	I can learn about the schools in Bristol, past and present.	I can explore photographs and videos to gather information.	Video
9	I can learn about the significance of chrysanthemums in Bristol.	I can gather information about the significance of major products in Bristol CT.	artifacts , photographs, video
10	I can learn about the development of Bristol hospital, past and present.	I can explore photographs and artifacts.	Photographs
11	I can learn about ESPN and why it is in Bristol, CT.	I can gather information about the significance of major businesses.	Video Artifacts
12	I can learn about the park and recreation department in Bristol.	I can explore multiple park locations within Bristol.	Photographs
13	I can learn about manufacturing in Bristol.	I can gather information about the significance of major businesses.	Photographs
14	I can explore new opportunities for Bristol's future.	I can visualize and determine how Bristol can continue to contribute positively to CT.	Sketches & photographs
15	I can explore various neighborhoods in Bristol.	I can identify the different neighborhoods on a map.	Map
16	I can explore the importance of notable innovators or innovations in Connecticut.	I can gather information about the significant innovators and/or inventions.	Visuals

**Curriculum Writing Notes:**

Address UDL and CELP AFTER learning targets are written, in process they'll be developed after all learning targets and success criteria. These targets with UDL and CELP will be a model of what could/should be done for all learning targets but can't be completed (to keep the process concise). Through the curriculum writing process, teachers can build a deeper understanding of how to approach this differentiation.

Enduring understanding/Essential questions may be easier to develop at the end of the process.

Committees can alter the format but these are the required pieces.

Course Title:	Content Area:	Grade Level:	Credit (if applicable)
Grade 4 Social Studies	Social Studies	Fourth Grade	N/A
<b>Course Description:</b>			
In Grade 4 students engage in the study of United States Geography as it relates to the regional cultural, economic, and political development of the United States. This approach supports in-depth inquiry through the examination and evaluation of sources and allows students to explore regions of the United States supported by the disciplines of history, civics, and economics. A focus on Indigenous people of the United States is embedded within the study of each region.			
<b>Aligned Core Resources:</b>		<b>Connection to the <i>BPS Vision of the Graduate</i></b>	
Unit 1 <ul style="list-style-type: none"> <li>• People and Places of the Northeast by John Micklos, Jr.</li> <li>• Unit 1 Slide deck</li> </ul> Unit 2 <ul style="list-style-type: none"> <li>• People and Places of the Southeast by</li> <li>• People and Places of the Midwest by</li> <li>• Unit 2 Slide deck</li> </ul> Unit 3 <ul style="list-style-type: none"> <li>• People and Places of the Southwest by Danielle Smith-Llera</li> <li>• People and Places of the West by Danielle Smith-Llera</li> <li>• Unit 3 Slide deck</li> </ul>		Communication <ul style="list-style-type: none"> <li>• Articulates thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts</li> <li>• Utilize multiple media and technologies, and know how to judge their effectiveness as well as assess their impact</li> </ul> Empathy <ul style="list-style-type: none"> <li>• Demonstrating understanding of others perspectives and needs</li> <li>• Understand the concept of community as a means for supporting others in need</li> </ul> Critical Thinking and Problem Solving <ul style="list-style-type: none"> <li>• Collect, assess and analyze relevant information</li> </ul> Civic Literacy <ul style="list-style-type: none"> <li>• Understand the local and global implications of civic decisions</li> <li>• Understand other nations and cultures including the use of non-English language</li> </ul>	
<b>Additional Course Information: Knowledge/Skill Dependent courses/prerequisites</b>		<b>Link to <i>Completed Equity Audit</i></b>	
How do people depend on and shape their		<a href="#">Grade 4 Social Studies Equity Curriculum Review</a>	

<p>environment? What influences the movement of people, goods, and ideas in the United States?</p> <p>Students will build their understanding through:</p> <ol style="list-style-type: none"> <li>1. Understanding Regions</li> <li>2. Location, Place, and Movement</li> <li>3. Regional Interdependence</li> </ol>	
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**Standard Matrix**

[CT Elementary and Secondary Social Studies Standards](#)

District Learning Expectations and Standards	Unit 1	Unit 2	Unit 3
<b>Dimension 1- Develop Questions and Plan Inquiries</b>			
4.Inq.1.a. Explain why compelling questions about a United States region are important to others	X	X	X
4.Inq.1.b. Explain how supporting questions help answer compelling questions in an inquiry about a United States region.	X	X	X
4.Inq.1.c. Determine the kinds of sources that will be helpful in answering compelling and supporting questions, taking into consideration the different opinions people have about how to answer the question.	X	X	X
<b>Dimension 2- Apply Disciplinary Concepts and Tools</b>			
4.Inq.2.a. Apply disciplinary knowledge and practices to demonstrate an understanding of United States geography content.	X	X	X
<b>Dimension 3- Evaluate Sources and Use Evidence</b>			
4.Inq.3.a. Gather relevant information from multiple sources about an event or issue in a United States region.	X	X	X
4.Inq.3.b. Identify evidence response to a compelling question while determining among fact and opinion to determine the credibility of multiple sources.	X	X	X
4.Inq.3.c. Use evidence to develop claims in response to a compelling question by using evidence related to the geography of a United States region.	X	X	X
<b>Dimension 4- Communicate Conclusions and Take Informed Action</b>			
4.Inq.4.a. Construct arguments using claims and evidence from multiple sources about a United States region.	X	X	X
4.Inq.4.b. Construct explanations using reasoning, correct sequence, examples, and details with relevant information and data.	X	X	X
4.Inq.4.c. Critique arguments and explanations.	X	X	X
4.Inq.4.d. Present a summary of arguments and explanations with relevant	X	X	X

information about a person, event, or issue in a United States region using print, oral, and digital technologies (e.g., reasoning, correct sequence, examples, data, details).			
4.Inq.4.e. Explain the challenges and opportunities, both present and past, in addressing local, regional, and global problems in a United States region.	X	X	X
4.Inq.4.f. Use a range of deliberative and democratic procedures to evaluate and implement strategies to address problems in classrooms and schools.	X	X	X
<b>4-1. Understanding Regions</b>			
4.Geo.1.a. Demonstrate spatial awareness by creating maps to illustrate regions within or extending beyond the political boundaries of the United States.	X	X	X
4.Geo.2.a. Explain the relationship between natural resources and human settlement in United States regions using maps, photographs, and other representations.	X	X	X
4.Geo.2.b. Use historical maps and other visual representations to explain how environmental characteristics of a United States region change over time.	X	X	X
4.Geo.3.a. Use state and regional maps to describe cultural and environmental characteristics of regions .	X	X	X
4.Geo.9.a. Analyze how catastrophic environmental and economic events have caused migration within and across various regions of the United States.	X	X	X
4.Geo.10.a. Explain how and why environmental characteristics vary across regions in the United States and North America.	X	X	X
4.Geo.12.a. Explain how individuals and groups prepare for and respond to natural and human-made disasters.	X	X	X
4.Geo.12.b. Explain how individuals and groups adapt to climate change based on the unique characteristics of their region.	X	X	X
<b>4-2. Location, Place, and Movement</b>			
4.Geo.5.a. Explain how cultural and environmental characteristics of places change over time in the United States.	X	X	X
4.Geo.7.a. Explain the environmental and cultural characteristics that shape the movement of people, goods, and ideas in United States regions.	X	X	X
4.Geo.8.a. Explain how human settlement and movement relates to the availability of natural resources in a region.	X	X	X
4.Geo.6.a. Describe how economic, social, and political factors influence migration and population distribution throughout the United States.	X	X	X
4.His.5.a. Explain how push and pull factors influence the development of cultural enclaves in the United States.	X	X	X
4.His.9.a. Summarize how different kinds of sources can be used to understand the settlement and resettlement of individuals and groups (e.g., census records, diary entries, oral histories, monuments, secondary sources).	X	X	X

4.Geo.5.b. Explain how the cultural characteristics of communities in a particular place are sustained and evolve over time			
<b>4-3. Regional Interdependence</b>			
4.Geo.11.a. Describe a global economic event or issue that led to change and migration in a United States region.	X	X	X
4.Civ.14.a. Illustrate historical and contemporary examples of individuals and groups effecting change in a region.	X	X	X
4.Eco.6.a. Explain how business investments in worker training and diversity contribute to increased productivity and future incomes within a region	X	X	X
4.Eco.7.a. Explain how profits influence sellers in markets throughout regions of the United States	X	X	X

### Unit Links

*If unit headings are formatted as a heading, then we can link a Table of Contents to better organize and provide faster access to each unit*

[Unit 1: Regions of the United States Northeast](#)

[Unit 2: Regions of the United States: The Southeast and the Midwest](#)

[Unit 3: Regions of the U.S. West and Southwest](#)

<b>Unit Title:</b>			
Unit 1: Regions of the United States Northeast			
<b>Relevant Standards: Bold indicates priority</b>			
See above			
<b>Essential Question(s):</b>		<b>Enduring Understanding(s):</b>	
<ul style="list-style-type: none"> <li>How do geographical features and climate impact the people of the region?</li> <li>What role did the Northeast region play in shaping the nation's history, economy, culture and recreation?</li> <li>What is a megalopolis and why is this area important to the Northeast's economy?</li> </ul>		In this unit students learn about the overview of the US regions and learn about the Northeast through the disciplines of history, civics, and economics. A focus on Indigenous people of the United States is embedded within the study of each region.	
<b>Demonstration of Learning:</b>		<b>Pacing for Unit</b>	
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>Development of questions</li> <li>Planning inquiries</li> <li>Evaluate sources</li> <li>Use Evidence</li> <li>Communicate conclusions</li> </ul>		6 weeks	
<b>Family Overview (link below)</b>		<b>Integration of Technology:</b>	
<a href="#">Family Overview- Grade 4 Unit 1</a>		Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning.	
<b>Unit-specific Vocabulary:</b>		<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>	
<b>Academic Vocabulary</b>		<ul style="list-style-type: none"> <li>People and Places of the Northeast by John Micklos, Jr.</li> <li>North East Video</li> <li>North East poster and note catcher</li> <li>Unit 1 slide deck</li> </ul>	
Argument	Sources		Evidence
Claims	Counterclaims		gather
Visually	Credibility		Visualize

Gather	Point of View	Questioning	
Explanation			
<b>Content Vocabulary</b>			
Population Density	Megalopolis	Northeast	
populated	league	suburb	
secede	finance	Migrate	
<b>Opportunities for Interdisciplinary Connections:</b>			<b>Anticipated misconceptions:</b>
<ul style="list-style-type: none"> <li>• CCSS.ELA-Literacy.RL.4.1</li> <li>• CCSS.ELA-Literacy.W.4.7</li> <li>• CCSS.ELA-Literacy.SL.4.1</li> </ul>			Students may have misconceptions of: <ul style="list-style-type: none"> <li>• What region specific state they are in.</li> <li>• Where regions are located on a map.</li> <li>• How to use a compass</li> </ul>
<b>Connections to Prior Units:</b>			<b>Connections to Future Units:</b>
In grade 3 students study geography and how it relates to Bristol, CT. This unit will help to build upon the understanding and background knowledge students gained when they studied Bristol, Connecticut, and the structure and function of the local government.			Students will build upon what they learned in unit 1 and expand on their knowledge of regions through the study of the Southeast and Midwest region in unit 2 and the study of the West and Southwest regions in unit 3.
<b>Differentiation through <i>Universal Design for Learning</i></b>			
<b>UDL Indicator</b>			<b>Teacher Actions:</b>
3 Building Knowledge			<ul style="list-style-type: none"> <li>• Connect prior knowledge to new learning (3.1)</li> <li>• Highlight and explore patterns, critical features, big ideas, and relationships (3.2)</li> <li>• Cultivate multiple ways of knowing and making meaning (3.3)</li> <li>• Maximize transfer and generalization</li> </ul>
9 Emotional Capacity			<ul style="list-style-type: none"> <li>• Recognize expectations, beliefs, and motivations (9.1)</li> <li>• Develop awareness of self and others (9.2)</li> </ul>

1 Perception	<ul style="list-style-type: none"> <li>• Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>		
<b>Supporting Multilingual/English Learners</b>			
<b>Related <i>CELP standards</i>:</b>		<b>Learning Targets:</b>	
<p>An EL can conduct research and evaluate and communicate findings to answer questions or solve problems</p> <p>An EL can participate in grade appropriate oral and written exchanges of information, ideas, and analyses, responding to peer, audience, or reader comments and questions.</p>		<ul style="list-style-type: none"> <li>• I can conduct short research projects to answer a question</li> <li>• I can participate in extended conversations, discussions, and extended written exchanges using academic and domain specific vocabulary</li> </ul>	
<b>Lesson Sequence</b>	<b>Learning Target</b>	<b>Success Criteria/ Assessment</b>	<b>Resources</b>
1-5	I can identify and describe the Northeast region of the United States.	<p>I read and discussed the introduction for the text, “People and Places of the Northeast”.</p> <p>I located and labeled the map of the Northeast regions.</p> <p>I discovered the answers to the questions by reading and using text features.</p>	<p>People and Places of the Northeast by John Micklos, Jr.</p> <p>Unit 1 Northeast Introduction Student Worksheet</p>
6-10	I can explore the people and history of the Northeast region of the U.S. and explain how various groups shaped the culture and economy.	<p>I read and discussed Chapter 2 in, “People and Places of the Northeast”.</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Northeast by John Micklos, Jr.</p>
11-15	<p>I can explore the daily life and economy of the Northeast region of the U.S.</p> <p>I can explain the impact of the region on people’s daily lives.</p>	<p>I read and discussed Chapter 3 in, “People and Places of the Northeast”.</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Northeast by John Micklos, Jr.</p>

16-20	I can describe the major historical and cultural sites of the Northeast region and how they contribute to the region's heritage.	I read and discussed Chapter 4 in, "People and Places of the Northeast".  I asked and answered questions about the chapter.  I used evidence from the chapter to explain my thinking.	People and Places of the Northeast by John Micklos, Jr  Unit 1 Chapter 4 Worksheet
21-25	I can synthesize my knowledge about the Northeast region and select one state to explore and learn more about.  I can create a presentation to explain why you should visit my selected state.	I read and discussed information about my selected state with a partner or group.  I researched about my state using the websites provided.  I used evidence from the research to create my presentation.	Pebblego EPIC! The Northeast Booklet Virtual Field Trip Library books on states Northeast Poster/Video Note Catcher

**Unit Title:**

Unit 2: Regions of the United States: The Southeast and the Midwest

**Relevant Standards: Bold indicates priority**

Content Standards: See above.

**Essential Question(s):**

- How do geographical features impact the movement of ideas and expansion of people?
- What role did these regions play in shaping the nation's history?
- Describe the daily life and famous people and places of these regions.
- What are the Economy, Culture and Recreation of these regions?

**Enduring Understanding(s):**

In this unit students learn about the people and places of the Southeast and Midwest regions and learn about these regions through the disciplines of history, civics, and economics. A focus on Indigenous people of the United States is embedded within the study of each region.

**Demonstration of Learning:**

Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):

- Development of questions
- Planning inquiries
- Evaluate sources

**Pacing for Unit**

6 weeks

<ul style="list-style-type: none"> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>																																		
<b>Family Overview (link below)</b>	<b>Integration of Technology:</b>																																	
<a href="#">Family Overview - Grade 4 Unit 2</a>	<i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i>																																	
<b>Unit-specific Vocabulary:</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>																																	
<p><b>Academic Vocabulary</b></p> <table border="1"> <tr> <td>Argument</td> <td>Sources</td> <td>Evidence</td> </tr> <tr> <td>Claims</td> <td>Counterclaims</td> <td>gather</td> </tr> <tr> <td>Visually</td> <td>Credibility</td> <td>Visualize</td> </tr> <tr> <td>Gather</td> <td>Point of View</td> <td>Questioning</td> </tr> <tr> <td>Explanation</td> <td></td> <td></td> </tr> </table> <p><b>Content Vocabulary</b></p> <table border="1"> <tr> <td>Ethnic</td> <td>Plantation</td> <td>Secede</td> </tr> <tr> <td>reconstruction</td> <td>Civil rights</td> <td>Discrimination</td> </tr> <tr> <td>Humid</td> <td>Hurricane</td> <td>Levee</td> </tr> <tr> <td>Research</td> <td>Plains</td> <td>Territory</td> </tr> <tr> <td>Expedition</td> <td>Prairie</td> <td>Immigration</td> </tr> <tr> <td>Reservation</td> <td>Drought</td> <td></td> </tr> </table>	Argument	Sources	Evidence	Claims	Counterclaims	gather	Visually	Credibility	Visualize	Gather	Point of View	Questioning	Explanation			Ethnic	Plantation	Secede	reconstruction	Civil rights	Discrimination	Humid	Hurricane	Levee	Research	Plains	Territory	Expedition	Prairie	Immigration	Reservation	Drought		<ul style="list-style-type: none"> <li>• Unit 2 slide deck</li> <li>• Southeast Region video</li> <li>• Midwest Video</li> </ul>
Argument	Sources	Evidence																																
Claims	Counterclaims	gather																																
Visually	Credibility	Visualize																																
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<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions:</b>																																	
CCSS.ELA-Literacy.RL.4.1 CCSS.ELA-Literacy.W.4.7 CCSS.ELA-Literacy.SL.4.1	Students may have misconceptions of: <ul style="list-style-type: none"> <li>• What region specific state they are in.</li> <li>• Where regions are located on a map.</li> <li>• How to use a compass.</li> </ul>																																	
<b>Connections to Prior Units:</b>	<b>Connections to Future Units:</b>																																	
<ul style="list-style-type: none"> <li>• In grade 3 students study geography and how it relates to Bristol, CT. This unit will help to build</li> </ul>	Students will build upon what they learned in unit 1 and expand on their knowledge of regions through the study																																	



4-7	<p>I can explore the people and history of the Southeast region of the U.S. and explain how various groups shaped the culture and economy.</p>	<p>I read and discussed the Chapter 1 in, "People and Places of the Southeast".</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Southeast</p> <p>Unit 2 Southeast Chapter 1 Slidedeck for Google Classroom</p> <p>Unit 2 Southeast Chapter 1 Worksheet Written Version</p>
8-11	<p>I can explore the land and climate of the Southeast region of the U.S.</p> <p>I can explain the role of land and climate on how people live in that region.</p>	<p>I read and discussed the Chapter 2 in, "People and Places of the Southeast"</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Southeast</p> <p>Chapter 2-Land and Climate note catcher</p>
12-14	<p>I can explore the economy of the Southeast region of the U.S.</p> <p>I can explain the impact of technology, tourism and transportation on the region.</p>	<p>I read and discussed Chapter 3 in, "People and Places of the Southeast".</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Southeast</p>

15-18	<p>I can describe the daily life and culture of the Southeast region.</p> <p>I can explain how the culture contributes to the experiences and heritage of the region.</p>	<p>I read and discussed Chapter 4 in, "People and Places of the Southeast".</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Southeast</p> <p>Unit 2 Southeast Note Catcher</p>
18-20	<p>I can identify and describe the Midwest region of the United States.</p>	<p>I read and discussed the introduction for the text, "People and Places of the Midwest".</p> <p>I located and labeled the map of the Midwest regions.</p> <p>I discovered the answers to the questions by reading and using text features.</p>	<p>People and Places of the Midwest</p> <p>Unit 2 Engage Midwest Introduction Map Student Worksheet</p>
21-23	<p>I can explore the history and growth of the Midwest region and explain how historical events impacted various groups of people.</p>	<p>I read and discussed Chapter 1 in, "People and Places of the Midwest".</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Midwest</p> <p>Unit 2 Midwest Chapter 1: Worksheet</p>
24-26	<p>I can explore the land and climate of the Midwest region of the U.S.</p> <p>I can explain the role of land and climate on how people live in that region.</p>	<p>I read and discussed Chapter 2 in, "People and Places of the Midwest".</p> <p>I asked and answered questions about the chapter.</p>	<p>People and Places of the Midwest</p> <p>Unit 2 Midwest Chapter 2 Note Catcher</p>

		I used evidence from the chapter to explain my thinking.	
27-28	<p>I can explore jobs and the economy of the Midwest region of the U.S.</p> <p>I can explain the impact of the various industries on the region.</p>	<p>I read and discussed Chapter 3 in, "People and Places of the Midwest".</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Midwest</p> <p>Unit 2 Midwest Chapter 3: Economy Note catcher</p>
29-30	<p>I can describe the people and culture of the Midwest region.</p> <p>I can explain the contributions of various people to the region.</p>	<p>I read and discussed Chapter 4 in, "People and Places of the Midwest".</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Midwest</p> <p>Unit 2 Midwest Chapter 4 - Note Catcher</p> <p>Midwest Video</p> <p>Culminating Written Response</p>

**Unit Title:**

Unit 3: Regions of the U.S. West and Southwest

**Relevant Standards: Bold indicates priority**

Content Standards: See Above

**Essential Question(s):**

- How does where we live affect how we live?
- How and why do places change over time?
- What characteristics make groups of people unique?
- What role does climate play in people's lives?
- Why do people move from one region to another?

**Enduring Understanding(s):**

In this unit students learn about the people and places of the West and Southwest regions and learn about these regions through the disciplines of history, civics, and economics. A focus on Indigenous people of the United States is embedded within the study of each region.

<b>Demonstration of Learning:</b>	<b>Pacing for Unit</b>																																	
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Development of questions</li> <li>• Planning inquiries</li> <li>• Evaluate sources</li> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>	6 weeks																																	
<b>Family Overview (link below)</b>	<b>Integration of Technology:</b>																																	
<a href="#">Family Overview - Grade 4 Unit 3</a>	<ul style="list-style-type: none"> <li>• <i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i></li> </ul>																																	
<b>Unit-specific Vocabulary:</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>																																	
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<b>Opportunities for Interdisciplinary Connections:</b>		<b>Anticipated misconceptions:</b>	
<ul style="list-style-type: none"> <li>● CCSS.ELA-Literacy.RL.4.1</li> <li>● CCSS.ELA-Literacy.W.4.7</li> <li>● CCSS.ELA-Literacy.SL.4.1</li> </ul>		Students may have misconceptions of: <ul style="list-style-type: none"> <li>● What region specific state they are in.</li> <li>● Where regions are located on a map.</li> <li>● How to use a compass.</li> </ul>	
<b>Connections to Prior Units:</b>		<b>Connections to Future Units:</b>	
<ul style="list-style-type: none"> <li>● In grade 3 students study geography and how it relates to Bristol, CT. This unit will help to build upon the understanding and background knowledge students gained when they studied Bristol, Connecticut, and the structure and function of the local government.</li> </ul>		Students will build upon what they learned in unit 1 about the Northeast region and expand on their knowledge of regions through the study of the Southeast and Midwest region in unit 2 and the study of the West and Southwest regions in unit 3.	
<b>Differentiation through <i>Universal Design for Learning</i></b>			
<b>UDL Indicator</b>		<b>Teacher Actions:</b>	
3 Building Knowledge		<ul style="list-style-type: none"> <li>● Connect prior knowledge to new learning (3.1)</li> <li>● Highlight and explore patterns, critical features, big ideas, and relationships (3.2)</li> <li>● Cultivate multiple ways of knowing and making meaning (3.3)</li> <li>● Maximize transfer and generalization</li> </ul>	
9 Emotional Capacity		<ul style="list-style-type: none"> <li>● Recognize expectations, beliefs, and motivations (9.1)</li> <li>● Develop awareness of self and others (9.2)</li> </ul>	
1 Perception		<ul style="list-style-type: none"> <li>● Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>	
<b>Supporting Multilingual/English Learners</b>			
<b>Related <u>CELP standards:</u></b>		<b>Learning Targets:</b>	
An EL can conduct research and evaluate and communicate findings to answer questions or solve problems  An EL can participate in grade appropriate oral and written exchanges of information, ideas, and analyses, responding to peer, audience, or reader comments and questions.		<ul style="list-style-type: none"> <li>● I can conduct short research projects to answer a question</li> <li>● I can participate in extended conversations, discussions, and extended written exchanges using academic and domain specific vocabulary</li> </ul>	
<b>Lesson Sequence</b>	<b>Learning Target</b>	<b>Success Criteria/ Assessment</b>	<b>Resources</b>

1-2	I can identify and describe the Southwest region of the United States.	<p>I read and discussed the introduction for the text, “People and Places of the Southwest”.</p> <p>I located and labeled the map of the Southwest regions.</p> <p>I discovered the answers to the questions by reading and using text features.</p>	<p>People and Places of the Southwest by Danielle Smith-Llera</p> <p>Unit 3 Engage Southwest Introduction Map Student Worksheet</p>
3-4	I can explore the history and growth of the Southwest region and explain how historical events impacted various groups of people.	<p>I read and discussed Chapter 1 in, “People and Places of the Southwest”.</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Southwest by Danielle Smith-Llera</p> <p>Unit 3 Southwest Ch. 1 Worksheet</p>
5-6	<p>I can explore the land and climate of the Southwest region of the U.S.</p> <p>I can explain the role of land and climate on how people live in that region.</p>	<p>I read and discussed Chapter 2 in, “People and Places of the Southwest”.</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	<p>People and Places of the Southwest by Danielle Smith-Llera</p> <p>Unit 3 Southwest Chapter 2: Worksheet</p>
6-7	<p>I can explore jobs and the economy of the Southwest region of the U.S.</p> <p>I can explain the impact of the various industries on the region.</p>	I read and discussed Chapter 3 in, “People and Places of the Southwest”.	<p>People and Places of the Southwest by Danielle Smith-Llera</p> <p>Unit 3 Southwest Chapter 3: Worksheet</p>

		<p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	
8-11	<p>I can describe the people and culture of the Southwest region.</p> <p>I can explain the contributions of various people to the region.</p>	<p>I read and discussed Chapter 4 in, “People and Places of the Southwest”.</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p> <p>I viewed the video with a focus on learning and recording notes about the people, places and events of the Southwest region.</p> <p>I asked and answered questions about the video.</p> <p>I used evidence from the video to explain my thinking.</p>	<p>People and Places of the Southwest by Danielle Smith-Llera</p> <p><u>trip</u></p> <p><u>Southwest Virtual field trip #2</u></p> <p>Southwest Region: Video Note Catcher</p> <p>Unit 3 Southwest Chapter 4 Culture: Worksheet</p> <p>Culminating Written Response</p>
12-13	<p>I can identify and describe the West region of the United States.</p>	<p>I read and discussed the introduction for the text, “People and Places of the West”.</p> <p>I located and labeled the map of the West region.</p> <p>I discovered the answers to the questions by</p>	<p>People and Places of the West by Danielle Smith-Llera</p> <p>Unit 3 Engage West Introduction Map Student Worksheet</p>

		reading and using text features.	
14-15	I can explore the history and growth of the West region and explain how historical events impacted various groups of people.	I read and discussed Chapter 1 in, "People and Places of the West".  I asked and answered questions about the chapter.  I used evidence from the chapter to explain my thinking.	People and Places of the West by Danielle Smith-Llera  Unit 3 West Ch. 1 Worksheet
16-17	I can explore the land and climate of the West region of the U.S.  I can explain the role of land and climate on how people live in that region.	I read and discussed Chapter 2 in, "People and Places of the West".  I asked and answered questions about the chapter.  I used evidence from the chapter to explain my thinking.	People and Places of the West by Danielle Smith-Llera  Unit 3 West Chapter 2: Worksheet
18-19	I can explore jobs and the economy of the West region of the U.S.  I can explain the impact of the various industries on the region.	I read and discussed Chapter 3 in, "People and Places of the West".  I asked and answered questions about the chapter.  I used evidence from the chapter to explain my thinking.  Research online to learn more about the Golden Gate Bridge in pairs or	<u>Britannica Kids:</u> <u>Kiddle Facts for Kids:</u>

		Small groups. Present new facts to the class.	
20-21	<p>I can describe the people and culture of the West region.</p> <p>I can explain the contributions of various people to the region.</p>	<p>I read and discussed Chapter 4 in, "People and Places of the West".</p> <p>I asked and answered questions about the chapter.</p> <p>I used evidence from the chapter to explain my thinking.</p>	Unit 3 West Chapter 4 Culture Worksheet
22-25	<p>I can describe the geography and climate of the West region.</p> <p>I can explain the contributions of various people to the region.</p>	<p>I viewed the video with a focus on learning and recording notes about the people, places and events of the West region.</p> <p>I asked and answered questions about the video.</p> <p>I used evidence from the video to explain my thinking.</p>	<p>People and Places of the West by Danielle Smith-Llera</p> <p>The Western Region Video</p> <p>West Region: Video Note Catcher</p> <p>Culminating Written Response</p>

**Curriculum Writing Notes:**

Address UDL and CELP AFTER learning targets are written, in process they'll be developed after all learning targets and success criteria. These targets with UDL and CELP will be a model of what could/should be done for all learning targets but can't be completed (to keep the process concise). Through the curriculum writing process, teachers can build a deeper understanding of how to approach this differentiation.

Enduring understanding/Essential questions may be easier to develop at the end of the process.

Committees can alter the format but these are the required pieces.

Course Title:	Content Area:	Grade Level:	Credit (if applicable)
Grade 5 Social Studies	Social Studies	Grade 5	N/A
<b>Course Description:</b>			
<ul style="list-style-type: none"> <li>Grade 5 students will engage in the study of events early in United States history from indigenous peoples here prior to colonization through the American Revolution. An emphasis is placed on analyzing and evaluating a variety of documents, sources, and perspectives.</li> </ul>			
<b>Aligned Core Resources:</b>		<b>Connection to the <a href="#">BPS Vision of the Graduate</a></b>	
Unit 1 Settlement of the Colonies & Relations With Indigenous Peoples <ul style="list-style-type: none"> <li>The Encounter by Jane Yolen</li> <li>Christopher Columbus New World Explorer or Fortune Hunter by</li> <li>New England Native American Groups by National Geographic Education (online)</li> <li>Native People of the American Northeast by Cynthia O'Brien and Jamie Kiffel-Alchek (online)</li> <li>Unit 1 slide deck</li> </ul> Unit 2 French and Indian War & The American Revolution <ul style="list-style-type: none"> <li>Colonial America- Thirteen Colonies (website)</li> <li>Establishing the American Colonies (Epic)</li> <li>Unit 2 Slide deck</li> </ul> Unit 3 The United States Constitution and Civic Participation <ul style="list-style-type: none"> <li>The United States Constitution Reader- Teacher</li> <li>The United States Constitution Reader- Kids</li> <li>Unit 3 Slide deck</li> </ul>		Communication <ul style="list-style-type: none"> <li>Articulates thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts</li> <li>Utilize multiple media and technologies, and know how to judge their effectiveness as well as assess their impact</li> </ul> Empathy <ul style="list-style-type: none"> <li>Demonstrating understanding of others perspectives and needs</li> <li>Understand the concept of community as a means for supporting others in need</li> </ul> Critical Thinking and Problem Solving <ul style="list-style-type: none"> <li>Collect, assess and analyze relevant information</li> </ul> Civic Literacy <ul style="list-style-type: none"> <li>Understand the local and global implications of civic decisions</li> <li>Understand other nations and cultures including the use of non-English language</li> </ul>	
<b>Additional Course Information:</b> <i>Knowledge/Skill Dependent courses/prerequisites</i>		Link to <a href="#">Completed Equity Audit</a>	

What were the economic, political, and social impacts of colonization in the Americas?

How did the American Revolution shape the national identity of the United States?

Students will build their understanding through:

1. Migration and Settlement
2. French and Indian War & The American Revolution
3. The United States Constitution and Civic Participation

## Standard Matrix

### CT Elementary and Secondary Social Studies Standards

District Learning Expectations and Standards	Unit 1	Unit 2	Unit 3
<b>Dimension 1- Develop Questions and Plan Inquiries</b>			
5.Inq.1.a. Identify concepts, ideas, and interpretations associated with compelling and supporting questions about early United States History.	x	x	x
5.Inq.1.b. Explain how supporting questions help answer compelling questions in an inquiry about United States history	x	x	x
5.Inq.1.c. Determine the kinds of sources that will be helpful in answering compelling and supporting questions, taking into consideration the different opinions people have about how to answer the questions.	x	x	x
<b>Dimension 2- Apply Disciplinary Concepts and Tools</b>			
5.Inq.2.a. Apply disciplinary knowledge and practices to demonstrate an understanding of United States history content..	x	x	x
<b>Dimension 3- Evaluate Sources and Use Evidence</b>			
5.Inq.3.a. Gather relevant evidence from multiple sources about a person, event, or issue in United States History while using the origin, structure, and context to guide selection.	x	x	x
5.Inq.3.b. Identify evidence response to a compelling question while determining among fact and opinion to determine the credibility of multiple sources.	x	x	x
5.Inq.3.c. Use evidence to develop claims in response to a compelling question by using evidence related to early United States history.	x	x	x
<b>Dimension 4- Communicate Conclusions and Take Informed Action</b>			
5.Inq.4.a. Construct arguments using claims and evidence from multiple sources about United States history.	x	x	x
5.Inq.4.b. Construct explanations using reasoning, correct sequence, examples, and details with relevant information and data.	x	x	x

5.Inq.4.c. Critique arguments and explanations.	x	x	x
5.Inq.4.d. Present a summary of arguments and explanations about early United States History using print, oral, and digital technologies	x	x	x
5.Inq.4.e. Explain the challenges and opportunities, both present and past, in addressing local, regional, and global problems in United States history.	x	x	x
5.Inq.4.f. Use a range of deliberative and democratic procedures to evaluate and implement strategies to address problems in classrooms and schools.	x	x	x
<b>5-1. Migration and Settlement</b>			
5.His.14.a. Explain probable causes and effects of the migration of Indigenous peoples and the formation of Native nations in North America	x	x	
5.Geo.8.a. Describe the connection between natural resources and human settlement patterns	x	x	
5.His.14.b. Describe the causes and effects of European exploration and settlement of the Americas	x	x	
4.Geo.3.a. Use state and regional maps to describe cultural and environmental characteristics of regions	x	x	
5.His.5.a. Explain how the culture and experiences of African, Indigenous, and European people influenced their perspectives during the Age of Exploration	x	x	
5.Geo.4.a. Explain how cultural diffusion of agricultural and technological knowledge held by African, Indigenous, and European communities contributed to North American settlements (	x	x	
5.Civ.6.a. Describe gender roles within and among Black, Indigenous, and European communities in early United States History.	x	x	
<b>5-2. The Colonial Era</b>			
5.Geo.2.a. Use maps to explain the relationship between the location of the New England, Middle, and Southern colonies, and the environmental characteristics of each region	x		
5.Eco.5.a. Describe the role of money and currency in trade during the Colonial Era	x		
5.Eco.14.a. Explain how the desire for global power and influence led to the exploitation of colonies	x	x	
5.His.9.a. Summarize how the Fundamental Orders of Connecticut represented new ideas about government	x	x	
5.Eco.3.a. Identify examples of resources used to produce goods and services throughout colonial settlements in the New England, Middle, and Southern regions	x	x	
5.Eco.4.a. Compare the reasons for different areas of specialization and trade among individuals and businesses in New England, Middle, and Southern colonies	x	x	

5.His.14.d. Explain Connecticut's connection to the transatlantic slave trade (e.g., New London's deep water ports, Wethersfield-constructed ship The Tryall).	x	x	
5.Civ.4.a. Compare how political systems were used to make rules that establish community leadership and protect freedoms for various groups in the Colonial Era	x	x	
5.His.16.a. Use evidence to develop a claim about a significant person, place, or event in Connecticut during the Colonial Era	x	x	
5.Civ.8.a. Identify the civic virtues and democratic principles that contributed to the rejection of British parliamentary rule of the North American colonies.	x	x	
<b>5-3. The American Revolution</b>			
5.His.1.a. Employ chronological thinking to create timelines comparing the events that led to the American Revolution (e.g., Seven Years War, Parliamentary acts of taxation, Boston Tea Party, Boston Massacre, Declaration of Independence).		x	
5.Eco.1.a. Compare the benefits and costs of governmental and individual choices leading to the American Revolution (e.g., taxation, homespun movement, right to property).		x	
5.His.4.a. Explain how political and economic beliefs shaped the perspectives held by Patriots and Loyalists leading to the American Revolution (e.g., individual rights, liberties, representation, sovereignty, trade and taxation).		x	
5.His.4.b. Explain why members of the Northeastern Woodland Native American tribes and Black communities held conflicting views regarding support for the American Revolution.		x	
5.His.6.a. Describe how people's perspectives of the American Revolution are documented in historical records while noting representation of marginalized voices (e.g., journals, letters, newspaper articles, pamphlets).		x	
5.His.10.a. Compare information provided by multiple historical sources about the people and events of the American Revolution (e.g., purpose, maker, significance, fact, opinion, bias).		x	
5.His.14.e. Explain probable causes and effects of major turning points in the American Revolution (e.g., Battle of Bunker Hill, Boston Massacre, Saratoga, Valley Forge).		x	
5.His.16.b. Use evidence to develop a claim about the role of Connecticut in the American Revolution (e.g., Provision State, privateers, Tory and Patriot sentiments).		x	
5.His.16.c. Develop a claim about significant people, places or events in Connecticut during the American Revolution		x	
5.Eco.15.a. Explain economic interdependence between the New England, Middle, and Southern colonies during the American Revolution (e.g., trade, efforts to support the continental cause).		x	
<b>5-4. The United States Constitution and Civic Participation</b>			
5.Civ.3.a. Examine the origins and purpose of key provisions of the United States			x

Constitution (e.g., checks and balances, limited government, popular sovereignty, republicanism, separations of powers, federalism).			
5.Civ.4.b. Explain how rules were established at the end of the American Revolution by identifying laws that promoted and limited personal liberties (e.g., citizenship, property, suffrage).		x	x
5.Civ.5.a. Explain the role of the Constitution in establishing a system of government in the United States			x
5.Civ.10.a. Identify how the political beliefs are represented in the Preamble of the United States Constitution.			x
5.Civ.14.a. Illustrate how individuals and groups in the Revolutionary Era and today have and can effect change (e.g., school, community, and state issues).			x
5.Civ.10.b. Identify the contributing factors that underlie multiple and varied points of view about school, community, and civic issues.			x

### Unit Links

*If unit headings are formatted as a heading, then we can link a Table of Contents to better organize and provide faster access to each unit*

[Unit 1: Settlement of the Colonies & Relations With Indigenous Peoples](#)

[Unit 2: French and Indian War & The American Revolution](#)

[Unit 3: The United States Constitution and Civic Participation](#)

<b>Unit Title:</b>					
<b>Unit 1: Settlement of the Colonies &amp; Relations With Indigenous Peoples</b>					
<b>Relevant Standards:</b>					
See above					
<b>Essential Question(s):</b>		<b>Enduring Understanding(s):</b>			
<ul style="list-style-type: none"> <li>• How did the movement of people contribute to the social and political developments during this period?</li> <li>• How did the exploration of Europeans impact historical developments during this era?</li> </ul>		<p>This unit requires students and teachers to develop an understanding of settlement and migration. The required understandings for this unit include:</p> <ul style="list-style-type: none"> <li>• People migrate and settle where there is greater access to natural resources and favorable geographic features.</li> <li>• Early interactions with colonists and indigenous peoples varied by context and place.</li> <li>• The transatlantic slave trade emerged as a result of European exploration and settlement patterns.</li> <li>• Migration, exploration, and settlement created instances of conflict within and across groups.</li> <li>• As a result of the movement of people, goods and ideas cultural diffusion took place.</li> </ul>			
<b>Demonstration of Learning:</b>		<b>Pacing for Unit</b>			
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Development of questions</li> <li>• Planning inquiries</li> <li>• Evaluate sources</li> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>		6 weeks			
<b>Family Overview (link below)</b>		<b>Integration of Technology:</b>			
<a href="#">Family Overview- Grade 5 Unit 1</a>		Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning			
<b>Unit-specific Vocabulary:</b>		<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>			
<b>Academic Vocabulary</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">archaeology</td> <td style="width: 33%;">authority</td> <td style="width: 33%;">belief</td> </tr> </table>		archaeology	authority	belief	<ul style="list-style-type: none"> <li>• The Encounter by Jane Yolen</li> <li>• Christopher Columbus New World Explorer or Fortune Hunter by</li> <li>• New England Native American Groups by</li> </ul>
archaeology	authority	belief			

bias	cause	claim
compelling	effect	evidence
formation	exploitation	governance
motive	pattern	perspective
sequence	supporting	

**Content Vocabulary**

African	Agriculture	Atlantic World
Caribbean	Culture	Cultural Norms
Enslavement	Europe	Exploration
Gender	Indigenous	Migration
Natural Resources	North America	Open Field System
Pacific World	Rice cultivation	Settlement
South America	Sovereignty	Technology
Tribal Nation	Three Sisters	West Africa

- National Geographic Education (online)
- Native People of the American Northeast by Cynthia O'Brien and Jamie Kiffel-Alcheh (online)
- Explore Colonial America! By Verna Fisher (EPIC)
- The Wampanoag Side of the First Thanksgiving Story by Michelle Tirado (article)
- 1607-1776 Colonial Period (Scholastic)
- The Thirteen Colonies by LaFontaine of Knowledge 2021
- The Colonies under British Rule
- Colonies in Connecticut in the 1640s by National Geographic Education (online)
- Establishing the American Colonies by Tyler Omoth
- Breakdown: Why the Pilgrims voyage to America wasn't and easy one by Erin Thomas (Article)
- First Contact with Europeans by Stephen Currie (CommonLit)
- Early History- Connecticut's Official State Website
- The Mashantucket Pequot Museum & Research Center Virtual Tour (YouTube)
- Mohegan Moments (Mohegan Tribe Website)
- Colonial Governments - Exploring Our Nation on the Learning Videos Channel by Harmony Square (YouTube)
- 13 Colonies, Colonial Government and Politics for Kids by Mr. Donn

**Opportunities for Interdisciplinary Connections:**

- CCSS.ELA-Reading: Informational Texts: Standards 1-10
- CCSS.ELA-Writing: Standards 1-2, 7-10
- CCSS.ELA-Speaking and Listening: Standards 1-6
- CCSS.ELA-Language: Standards 1-3, 7

**Anticipated misconceptions:**

- Students may have misconceptions of:
- Where and what Christopher Columbus explored.
  - How the Indigenous People felt about Christopher Columbus.

**Connections to Prior Units:**

Students will enter Grade 5 having explored these course questions in their Grade 4 coursework:  
 -How do people depend on and shape their environment?  
 -What influences the movement of people, goods, and ideas in the United States?

Under Dimension 2, Grade 5 students will have engaged in learning (from Grade 4) to build on the following Grade 5 standards:

- 4.Geo.8.a, which is a precursor to 5. Geo.5. a.

**Connections to Future Units:**

As Grade five students continue to engage in Social Studies content throughout the year, the work they do in Unit 1 will inform their work in the following units: The Colonial Era, The American Revolution, and The United States Constitution and Civic Participation. Grade five students will apply the knowledge and skills they built in this unit, to deepen their knowledge when they engage in learning about key settlements in North America to determine their economic and political characteristics, and to apply this combined knowledge to determine pivotal events that led to the American Revolution Unit.

<ul style="list-style-type: none"> <li>4.His.5. a., which is a precursor to 5. His.5. a.</li> </ul>	<p>Under Dimension 2, Grade 5 students will have engaged in learning to build on the following future standards in 6 and 7 standards:</p> <ul style="list-style-type: none"> <li>5.Geo.4.a, which is a precursor to 6. Geo.4.a</li> <li>5.Geo.8.a, which is a precursor to 7. Geo.8. a.</li> </ul>
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**Differentiation through *Universal Design for Learning***

<b>UDL Indicator</b>	<b>Teacher Actions:</b>
3 Building Knowledge	<ul style="list-style-type: none"> <li>Connect prior knowledge to new learning (3.1)</li> <li>Highlight and explore patterns, critical features, big ideas, and relationships (3.2)</li> <li>Cultivate multiple ways of knowing and making meaning (3.3)</li> <li>Maximize transfer and generalization</li> </ul>
9 Emotional Capacity	<ul style="list-style-type: none"> <li>Recognize expectations, beliefs, and motivations (9.1)</li> <li>Develop awareness of self and others (9.2)</li> </ul>
1 Perception	<ul style="list-style-type: none"> <li>Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>

**Supporting Multilingual/English Learners**

<b>Related <i>CELP standards:</i></b>	<b>Learning Targets:</b>
An EL can conduct research and evaluate and communicate findings to answer questions or solve problems	I can conduct short research projects to answer a question.
An EL can participate in grade appropriate oral and written exchanges of information, ideas, and analyses, responding to peer, audience, or reader comments and questions.	I can participate in extended conversations, discussions, and extended written exchanges using academic and domain specific vocabulary.  I can discuss early history.

<b>Lesson Sequence</b>	<b>Learning Target</b>	<b>Success Criteria/ Assessment</b>	<b>Resources</b>
1	I can gain and create my own perspective of the exploration of Christopher Columbus.	I watched and discussed the video on Columbus and the Taino People.  I can analyze the different perspectives of Christopher Columbus and the Taino People.	Video  Unit 1 Lesson 1/2 Task
2	I can gain and create my own perspective of the indigenous Taino people.	I read and discussed the text The Encounter by Jane Yolen.  I can analyze the different perspectives	The Encounter by Jane Yolen

		of Christopher Columbus and the Taino People.	Unit 1 Lesson 1/2 Task
3	I can gain and create my own perspective on Christopher Columbus.	I read and discussed Chapter 1 and 2 in, "Christopher Columbus: New World Explorer or Fortune Hunter?"  I asked and answered questions about the chapters.  I used evidence from the chapter to explain my thinking.	Christopher Columbus: New World Explorer or Fortune Hunter?
4	I can gain and create my own perspective on Christopher Columbus.	I read and discussed Chapter 3, 5, and 5 in, "Christopher Columbus: New World Explorer or Fortune Hunter?"  I asked and answered questions about the chapter.  I used evidence from the chapter to explain my thinking.	Capstone Text: Christopher Columbus: New World Explorer or Fortune Hunter?
5	I can ask and answer questions about the Indigenous groups that lived in the New England area.	I read and discussed the article "New England Native American Groups."  I asked and answered questions about the chapter.  I used evidence from the chapter to explain my thinking.	New England Native American Groups  Unit 1 Lesson 5 Task
6	I can ask and answer questions about the Indigenous groups that lived in the New England area.	I read and discussed the article "Native People of the American Northeast."  I asked and answered questions about the chapter.  I used evidence from the chapter to explain my thinking.	Native People of the American Northeast
7	I can explain how and why the different colonies were established.	I read and discussed the three resources.  I asked and answered questions about the three resources.  I used evidence from the resources to	Explore Colonial America  The Wampanoag Side of the

		explain my thinking.	First Thanksgiving Story (article) Let's Explore Colonial America!
8	I can identify why people wanted to leave Europe to colonize in the Americas.	I read and discussed the article "Dear American."  I asked and answered questions about the article.  I used evidence from the article to explain my thinking.	Dear American (Article)  Unit 1 Lesson 8 Task
9	I can explain how and why the different colonies were established.	I read and discussed the article "Colonies in Connecticut in 1640s."  I asked and answered questions about the article.  I used evidence from the article to explain my thinking.	Colonies in Connecticut in 1640s (Website)
10-11	I can explain the initial development and settlement of the colonies.	I read and discussed Chapter 1 within Establishing the American Colonies.  I asked and answered questions about the chapter.  I can create a journal entry replicating that time period.	Establishing the American Colonies by Tyler Omoth  Unit 1 Lesson 10-11 Task
12	I can explain the initial development and settlement of the colonies.	I viewed and discussed the video "Breakdown: Why the Pilgrims voyage to America wasn't an easy one."  I read and discussed Chapter 2 within Establishing the American Colonies.  I asked and answered questions about the chapter/video.	Breakdown: Why the Pilgrims voyage to America wasn't an easy one (video and article)  Establishing the American Colonies by Tyler Omoth

13	I can ask and answer questions about how colonization affected the Indigenous peoples of the Northeast.	<p>I read and discussed the article “The Wampanoag Side of the First Thanksgiving Story.”</p> <p>I asked and answered questions about the article.</p> <p>I used evidence from the article to explain my thinking.</p>	<p>The Wampanoag Side of the First Thanksgiving Story (article)</p> <p>Unit 1 Lesson 13 Task</p>
14	I can ask and answer questions about how colonization affected the Indigenous peoples of the Northeast.	<p>I read and discussed the article “First Contact with Europeans.”</p> <p>I asked and answered questions about the article.</p> <p>I used evidence from the article to explain my thinking.</p>	<p>First Contact with Europeans (Article)</p> <p>Unit 1 Lesson 14 Task</p>
15-16	I can explain how the colonies expanded to begin contributing to the American identity.	<p>I read about each of the 13 colonies.</p> <p>I completed the 13 colonies scavenger hunt.</p>	<p>Establishing the American Colonies by Tyler Omoth</p> <p>Video</p> <p>Video</p>
17	I can identify ways in which the colony of Connecticut was different from the other colonies.	<p>I read and discussed the article “Early History.”</p> <p>I asked and answered questions about the text.</p> <p>I used evidence from the text to explain my thinking.</p>	<p>Early History (article)</p>
18	I can identify the different governmental structures in the colonies.	<p>I read and discussed the article “13 Colonies, Colonial Government and Politics.”</p> <p>I took notes that show the difference</p>	<p>Video</p> <p>13 Colonies , Colonial Government and Politics (article)</p>

		<p>between the governments,</p> <p>I created a visual that shows the difference between the structure of government.</p>	<p>Unit 1 Lesson 14 Task</p>
19	<p>I can explain how the colonies united to fight against the injustices of the British.</p>	<p>I read and discussed Chapter 4 within Establishing the American Colonies.</p> <p>I asked and answered questions about the text.</p> <p>I used evidence from the text to explain my thinking.</p>	<p>Establishing the American Colonies by Tyler Omoth</p>
20-25	<p>I can gather information about a colony region.</p> <p>I can work collaboratively with my group to present our learning about a colony region.</p>	<p>I gathered information about my colony region.</p> <p>I worked with my group to present our learning about our colony region.</p> <p>I worked collaboratively with my group.</p>	

<b>Unit Title:</b>	
<b>Unit 2: French and Indian War &amp; The American Revolution</b>	
<b>Relevant Standards:</b>	
See above	
<b>Essential Question(s):</b>	<b>Enduring Understanding(s):</b>
<ul style="list-style-type: none"> <li>Was the American Revolution inevitable?</li> <li>In what ways did the American Revolution shape the national identity of the United States?</li> </ul>	<p>This unit requires students and teachers to develop and understand the American Revolution. The required understandings for this unit include:</p> <ul style="list-style-type: none"> <li>There are many factors and causes that create</li> </ul>

	<p>major historical events such as the American Revolution.</p> <ul style="list-style-type: none"> <li>• Individuals' perspectives on which side to align with in any conflict may be dependent on various factors and are not universal to demographic groups.</li> <li>• Historical records provide a window into a time period but do not always include various perspectives due to the context of the time the record was created.</li> <li>• Individual and group actions that occurred during the American Revolution illustrated the spirit of democracy that continues to shape the national identity of the United States.</li> </ul>												
<b>Demonstration of Learning:</b>	<b>Pacing for Unit</b>												
<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Development of questions</li> <li>• Planning inquiries</li> <li>• Evaluate sources</li> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>	6 weeks												
<b>Family Overview (link below)</b>	<b>Integration of Technology:</b>												
<a href="#">Family Overview- Grade 5 Unit 2</a>	Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning												
<b>Unit-specific Vocabulary:</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>												
<p><b>Academic Vocabulary</b></p> <table border="1"> <tr> <td>Primary source</td> <td>Secondary source</td> <td>Propaganda</td> </tr> <tr> <td>Cause and Effect</td> <td>Questioning</td> <td>Argument</td> </tr> <tr> <td>Explanation</td> <td>Point of View</td> <td></td> </tr> </table> <p><b>Content Vocabulary</b></p> <table border="1"> <tr> <td>Taxes</td> <td>Tariff</td> <td>Parliament</td> </tr> </table>	Primary source	Secondary source	Propaganda	Cause and Effect	Questioning	Argument	Explanation	Point of View		Taxes	Tariff	Parliament	<ul style="list-style-type: none"> <li>• Colonial America- Thirteen Colonies (website)</li> <li>• Establishing the American Colonies (Epic)</li> <li>• French and Indian War Video (YouTube)</li> <li>• The Boston Massacre Video (YouTube)</li> <li>• The Boston Tea Party Video (YouTube)</li> <li>• Battle of Lexington and Concord Video (YouTube)</li> <li>• Battles of Lexington and Concord</li> <li>• Battles of Lexington and Concord</li> <li>• Paul Revere</li> <li>• Minutemen</li> <li>• Battles of Lexington and Concord</li> <li>• Significant Battles of the American Revolution (Epic)</li> <li>• The Declaration of Independence by Mary Meinkin</li> </ul>
Primary source	Secondary source	Propaganda											
Cause and Effect	Questioning	Argument											
Explanation	Point of View												
Taxes	Tariff	Parliament											

Stamp Act	Townshend Act	Intolerable Act
Sons of Liberty	Daughters of Liberty	Boston Massacre
Committee of Correspondence	Tea Act	Boston Tea Party
First & Second Continental Congress	Militia	Minutemen
Taxes	Tariff	Parliament
Stamp Act	Townshend Act	Intolerable Act
Tribal Nation	Three Sisters	West Africa
Patriot	Loyalist	American Revolution
Battle of Lexington and Concord	Battle of Bunker Hill	Continental Army
Olive Branch Petition	Declaration of Independence	Traitor
Mercenary	Battle of Trenton	Battle of Saratoga
Valley Forge	Siege of Yorktown	Democracy
Republic	Treaty of Paris	

- The Declaration of Independence Video (YouTube)
- American Revolution:- Patriots and Loyalists (Website)
- Read Along with the Constitution's Preamble Video (YouTube)

<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions:</b>
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- CCSS.ELA-Reading: Informational Texts: Standards 1-10
- CCSS.ELA-Writing: Standards 1-2, 7-10
- CCSS.ELA-Speaking and Listening: Standards 1-6
- CCSS.ELA-Language: Standards 1-3, 7

- Students may have misconceptions of:
- Where and what Christopher Columbus explored.
  - How the Indigenous People felt about Christopher Columbus.

<b>Connections to Prior Units:</b>	<b>Connections to Future Units:</b>
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Students will enter Grade 5 having explored these course questions in their Grade 4 coursework:

- How do people depend on and shape their environment?
- What influences the movement of people,

As grade five students continue to engage in Social Studies content throughout the year, the work that they do in Unit 2 will inform their work in the following units: The United States Constitution and Civic Participation. This unit will enable students to learn the importance of



1	I can review how and why the 13 colonies were developed.	I read and discussed the text, "The Thirteen Colonies".  I asked and answered questions about the text.  I used evidence from the text to explain my thinking.	The Thirteen Colonies
2	I can understand what led to the French and Indian War.  I can identify what caused the colonists to come together.	I read and discussed chapter 4 of the text, Establishing the American Colonies.  I asked and answered questions about the text.  I used evidence from the text to explain my thinking.	Establishing the American Colonies
3	I can understand what led to the French and Indian War.	I can create a chart or visual that shows the conflicts that were occurring at the start of the French and Indian War.	
4	I can understand the major events of the French and Indian War.  I can understand what caused the war to come to an end.	I can express the major events that happened within the French and Indian War.  I can express how the war ended and why.	Video  Note Catcher  Lesson Task
5	I can understand why and how the British attempted to cover their debts.	I can express how and why the British attempted to cover their debts.  I can collaboratively work with my peers.	Taxation without Representation Activity
6	I can understand why and how the British attempted to cover their debts.	I can express how and why the British attempted to cover their debts.  I can collaboratively work with my peers.  I can create a poster that shows the meaning of either The Stamp Act, The Sugar Act, or The	The Sugar Act (article)  The Stamp Act (article)  The Townshend Act (article)

		Townshend Act.	
7	I can explain the actions the colonists took towards Britain's control.	I can explain how the colonists acted during the Boston Massacre.  I expressed what each side would have said on March 5, 1770.	The Boston Massacre Video  Boston Massacre (article)  Lesson Task
8	I can explain the impact the Colonists' actions had on Britain's control.	I explained why the colonists were a part of the Boston Tea Party.  I collaborated with my classmates to express our understanding of the Boston Tea Party through a readers theatre.	The Boston Tea Party Video  Boston Tea Party Readers Theatre
9	I can explain the role of the Continental Congress during the Revolutionary War.	I can notice the similarities and differences between the 1st and 2nd Continental Congress.  I discussed how the two meetings were alike and different.	Lesson Task
10	I can learn about major battles that took place during the Revolutionary War.	I crafted notes about the Battle of Lexington and Concord.  I summarized my notes about the battle for a battle report.	Battle of Lexington and Concord Video
11	I can learn about major battles that took place during the Revolutionary War.	I read and took notes on the battles.	Battle Note Catcher
12-14	I can learn about major battles that took place during the Revolutionary War and write a battle summary for a newspaper.	Our group read and took notes about our battle.  I shared the information about the battle my group researched with another group.	Battle Note Catcher

15	I can synthesize why the Declaration of Independence was written and how it impacted the lives of the colonists.	I read chapter 2 of The Declaration of Independence.  I explored the 3 grievances and determined the most supportive of the cause.	The Declaration of Independence
16	I can synthesize why the Declaration of Independence was written and how it impacted the lives of the colonists.	I read chapter 3 and 4 of The Declaration of Independence.  I brainstormed a list of ideas that I would like to add to the Declaration of Independence.	The Declaration of Independence
17	I can analyze the perspectives of the Patriots and Loyalists.	I understand the perspectives of the patriots and loyalists during The Revolutionary War.	Duckster Website  The Declaration of Independence  American Revolution (article)
18	I can analyze the language and meaning used in the Preamble to the Constitution.	I understand why it was important to create the Constitution.	Read Along with the Constitutions' Preamble  The Preamble Task
19	I can understand the perspective of the Indigenous People during the American Revolution.	I read my source on Indigenous People with my group.  My group took notes on our vertical surface that mirror the note catcher.	Note Catcher  "The Native Americans War" from Epic
20	I can understand the perspective of the Indigenous People during the American Revolution.	I wrote a journal entry depicting the perspective of an Indigenous person.	Perspective Sources

21-22	I can research the perspective others had during the American Revolution.	I researched the perspective of others during the American Revolution.  I have taken notes on these perspectives.	Note Catcher
23	I can craft a diary entry that shows the perspective of others.	I wrote a diary entry from the perspective of the person I researched.	
24-28	I can synthesize my learning to develop a newspaper to teach others.	I designed a newspaper that highlights several important aspects of the American Revolution.	Doc
Culminating Project	I can clearly communicate my learning by presenting my project.	I presented my learning clearly to my peers.	

Unit Title:	
<b>Unit 3: The United States Constitution and Civic Participation</b>	
Relevant Standards: Bold indicates priority	
See Above	
Essential Question(s):	Enduring Understanding(s):
<ul style="list-style-type: none"> <li>Explore how the Constitution affected the relationship between England and the</li> <li>What are the key principles of the Declaration of Independence and of the Constitution of the United States and which of the principles</li> <li>What are the key principles of the Declaration of Independence and of the Constitution of the United States and which of the principles</li> <li>How is the Constitution still evident in the US today?</li> </ul>	<p>This unit requires students and teachers to develop and understand the United State Constitution &amp; Civic Participation including the reason the Constitution was created and the components. Students will also understand how the Constitution affected the relationship between England and the colonies. Students will also learn about the Declaration of Independence and how the Constitution is still evident in the United States today.</p>
Demonstration of Learning:	Pacing for Unit

<p>Students may demonstrate their learning within this unit in a variety of ways. Possible methods for this include (but are not limited to):</p> <ul style="list-style-type: none"> <li>• Development of questions</li> <li>• Planning inquiries</li> <li>• Evaluate sources</li> <li>• Use Evidence</li> <li>• Communicate conclusions</li> </ul>	<p>6 weeks</p>																					
<p>Family Overview (link below)</p>	<p>Integration of Technology:</p>																					
<p><a href="#">Family Overview - Grade 5 Unit 3</a></p>	<p>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</p> <p>Unit 3 Slide Deck</p>																					
<p>Unit-specific Vocabulary:</p>	<p>Aligned Unit Materials, Resources, and Technology (beyond core resources):</p>																					
<p>Academy Vocabulary</p> <table border="1"> <tr> <td>Analyze</td> <td>Claim</td> <td>Compare</td> </tr> <tr> <td>Evidence</td> <td>Describe</td> <td>Desire</td> </tr> <tr> <td>Explain</td> <td>Freedom</td> <td>Government</td> </tr> <tr> <td>Identity</td> <td>Influence</td> <td>Labor</td> </tr> <tr> <td>Map</td> <td>Principle</td> <td>Rejection</td> </tr> <tr> <td>Resources</td> <td>Resistance</td> <td>Services</td> </tr> <tr> <td>Summarize</td> <td>Tools</td> <td>Weaving</td> </tr> </table>	Analyze	Claim	Compare	Evidence	Describe	Desire	Explain	Freedom	Government	Identity	Influence	Labor	Map	Principle	Rejection	Resources	Resistance	Services	Summarize	Tools	Weaving	<ul style="list-style-type: none"> <li>• The United States Constitution Reader- Teacher</li> <li>• The United States Constitution Reader- Kids</li> <li>• Timeline Resource</li> <li>• Kahoot</li> <li>• Three Branches of Government (Video)</li> <li>• Constitutional Convention: Federalists v. Anti-Federalists (Video)</li> <li>• Constitution Facts for Kids   Classroom Social Studies Lesson (Video)</li> <li>• Classroom Constitution</li> <li>• Service Learning Project</li> </ul>
Analyze	Claim	Compare																				
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<p>Content Vocabulary</p> <table border="1"> <tr> <td>Government</td> <td>Self-Rule</td> <td>Consent</td> </tr> <tr> <td>Deliberate</td> <td>Declaration of Independence</td> <td>Constitution</td> </tr> <tr> <td>assemble</td> <td>Trial by jury</td> <td>republic</td> </tr> <tr> <td>provision</td> <td>Conscience</td> <td>treaty</td> </tr> <tr> <td>Ordinance</td> <td>Politics</td> <td>ambassador</td> </tr> <tr> <td>legislative</td> <td>executive</td> <td>judicial</td> </tr> </table>	Government	Self-Rule	Consent	Deliberate	Declaration of Independence	Constitution	assemble	Trial by jury	republic	provision	Conscience	treaty	Ordinance	Politics	ambassador	legislative	executive	judicial				
Government	Self-Rule	Consent																				
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<table border="1"> <tr> <td>compromise</td> <td>posterity</td> <td>impeach</td> </tr> <tr> <td>Immigration</td> <td></td> <td></td> </tr> </table>	compromise	posterity	impeach	Immigration				
compromise	posterity	impeach						
Immigration								
<b>Opportunities for Interdisciplinary Connections:</b>		<b>Anticipated misconceptions:</b>						
<ul style="list-style-type: none"> <li>● CCSS.ELA-Reading: Informational Texts: Standards 1-1</li> <li>● CCSS.ELA-Writing: Standards 1-2, 7-10</li> <li>● CCSS.ELA-Speaking and Listening: Standards 1-6</li> <li>● CCSS.ELA-Speaking and Listening: Standards 1-6</li> </ul>		<p>Students may have misconceptions of:</p> <ul style="list-style-type: none"> <li>● What is in the constitution.</li> <li>● What the branches of government are.</li> </ul>						
<b>Connections to Prior Units:</b>		<b>Connections to Future Units:</b>						
<p>Students will enter Grade 5 having explored these course questions in their Grade 4 coursework:</p> <ul style="list-style-type: none"> <li>-How do people depend on and shape their environment?</li> <li>-What influences the movement of people, goods, and ideas in the United States?</li> </ul> <p>Under Dimension 2, Grade 5 students will have engaged in learning (from Grade 4) to build on the following Grade 5 standard:</p> <ul style="list-style-type: none"> <li>● 4.Civ.14. a., which is a precursor to 5. Civ.14.a</li> </ul>		<p>As grade five students continue to engage in Social Studies content throughout the year, the work that they completed in the prior units will inform their work in the current unit. This unit will help students to uncover the civic and democratic principles within our Constitution. In grade 6 and 7 students will be expected to describe how political institutions affect peoples' lives in various regions and contexts. This unit will provide students with the understanding of basic democratic principles and means of civic engagement that emerge throughout world regions. A thorough analysis of the Preamble, Constitution underpinnings as well as the logistics of how the United States federal branches are set up in grade 5 will provide a content bridge to the middle school units and allow students to expand on the analysis of the multiple perspectives within the creation of the Constitution.</p> <p>Under Dimension 2, Grade 5 students will have engaged in learning to build on the following future standards in grade 6 and grade 8.</p> <ul style="list-style-type: none"> <li>● 5.Civ.14.a, which is a precursor to 6. Civ.14.a</li> <li>● 5.Civ.3.a, which is a precursor to 8. Civ.3.a</li> <li>● 5.Civ.5.a, which is a precursor to 8. Civ.5.a</li> <li>● 5.Civ.10.a, which is a precursor to 8. Civ.10.a</li> <li>● 5.Civ.10.b, which is a precursor to 8. Civ.10.b</li> </ul>						
<b>Differentiation through <i>Universal Design for Learning</i></b>								
<b>UDL Indicator</b>		<b>Teacher Actions:</b>						
3 Building Knowledge		<ul style="list-style-type: none"> <li>● Connect prior knowledge to new learning (3.1)</li> <li>● Highlight and explore patterns, critical features, big ideas, and relationships (3.2)</li> <li>● Cultivate multiple ways of knowing and making meaning (3.3)</li> </ul>						

9 Emotional Capacity	<ul style="list-style-type: none"> <li>Maximize transfer and generalization</li> <li>Recognize expectations, beliefs, and motivations (9.1)</li> <li>Develop awareness of self and others (9.2)</li> </ul>
1 Perception	<ul style="list-style-type: none"> <li>Represent a diversity of perspectives and identities in authentic ways (1.3)</li> </ul>

Supporting Multilingual/English Learners

Related *CELP standards*:

Learning Targets:

An EL can conduct research and evaluate and communicate findings to answer questions or solve problems

I can conduct short research projects to answer a question

An EL can participate in grade appropriate oral and written exchanges of information, ideas, and analyses, responding to peer, audience, or reader comments and questions.

I can participate in extended conversations, discussions, and extended written exchanges using academic and domain specific vocabulary

I can discuss the United States Constitution

Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
1-2	I can explain what self-government means and why it was such a revolutionary idea.	<p>I can identify the main ideas contained in the Declaration of Independence.</p> <p>I can summarize events leading up to the formation of a national government.</p> <p>I can understand the meaning of the following domain-specific vocabulary: self-determination, liberty, right, unalienable, consent, and deliberate.</p>	<p>The United States Constitution Reader</p> <p>Note catcher</p>
3-4	I can explain what self-government is and why it was such a revolutionary idea.	<p>I can identify the main ideas contained in the Declaration of Independence.</p> <p>I can summarize events leading up to the formation of a national government.</p> <p>I can understand the meaning of the following domain-specific vocabulary:</p>	<p>The United States Constitution Reader</p>

		self-determination, liberty, right, unalienable, consent, and deliberate.	
5-7	I can explain what a republic or a republican form of government is.	<p>I can explain the purpose of a constitution and its relationship to other laws.</p> <p>I can explain how the former thirteen colonies formed state governments, and describe the form of those governments.</p> <p>I can compare fundamental ideas and characteristics in early state constitutions.</p> <p>I can understand the meaning of the following domain-specific vocabulary: assemble, term, republic, provision, and conscience; and of the phrase “trial by jury.”</p>	The United States Constitution Reader
8-9	I can explain how the lack of a central government proved to be a problem.	<p>I can summarize the provisions of the Articles of Confederation.</p> <p>I can contrast powers under the Articles of Confederation with powers under state constitutions.</p> <p>I can describe actions taken by the Second Continental Congress.</p> <p>I can understand the meaning of the following domain-specific vocabulary: delegate, confederation, treaty, and alliance.</p>	The United States Constitution Reader
10-11	I can explain why James Madison and Alexander Hamilton thought a stronger central government was needed.	<p>I can summarize and explain the significance of the Northwest Ordinance.</p> <p>I can explain why Alexander Hamilton, James Madison, and George Washington wanted to replace the Articles of Confederation.</p> <p>I can summarize events leading</p>	The United States Constitution Reader  Extension Activity

		<p>up to the Constitutional Convention.</p> <p>I can understand the meaning of the following domain-specific vocabulary: ordinance and politics.</p>	
12-13	I can explain what the author meant by “they had come to try to give that young nation a more secure future”.	<p>I can summarize the events at the start of the Constitutional Convention.</p> <p>I can identify significant figures who attended—and did not attend—the Constitutional Convention.</p> <p>I can understand the meaning of the following domain-specific vocabulary: ambassador.</p>	The United States Constitution Reader
14	I can explain the Virginia Plan and why some delegates objected to it.	<p>I can summarize important decisions made at the start of the Constitutional Convention.</p> <p>I can describe the provisions of the Virginia Plan.</p> <p>I can explain responses to the Virginia Plan.</p> <p>I can contrast the Virginia Plan and the New Jersey Plan.</p>	The United States Constitution Reader
15-16	I can explain the main challenges that had to be overcome in order to create a new constitution.	<p>I can describe how a federal system works.</p> <p>I can explain the significance of the separation of powers and checks and balances among three branches of government.</p> <p>I can explain the terms of the Great Compromise and the Three-Fifths Compromise.</p> <p>I can understand the meaning of the following domain-specific vocabulary: federal, legislative, executive, judicial,</p>	The United States Constitution Reader

		and compromise.	
17-18	I can list the steps that were put in place to ratify the constitution.	<p>I can explain the steps in the ratification process.</p> <p>I can explain the significance of the Preamble to the Constitution.</p> <p>I can describe what authority the Constitution gave the federal government.</p> <p>I can understand the meaning of the following domain-specific vocabulary: posterity.</p>	The United States Constitution Reader
19-20	I can explain why it was considered essential to have a Bill of Rights added to the U.S. Constitution.	<p>I can summarize the viewpoints of Federalists and Anti-Federalists.</p> <p>I can explain how the Constitution came to be ratified.</p> <p>I can describe the events that led to passage of the first ten amendments.</p> <p>I can summarize key provisions of the Bill of Rights.</p>	The United States Constitution Reader
21-22	I can explain reasons for the success of the Constitution and its survival for more than two hundred years.	<p>I can describe enduring strengths of the Constitution.</p> <p>I can explain the four guiding principles of the Constitution.</p> <p>I can compare and contrast powers of the federal government and state government under the Constitution.</p> <p>I can understand the meaning of the following domain-specific vocabulary: immigration and impeach.</p>	The United States Constitution Reader
23	I can work with my class to create a Class Constitution.	I can create a classroom constitution that all students agree upon.	

24-30	I can work with my classmates to identify a problem that is facing our school or our community.	I can research, plan and take action on an agreed upon problem facing my school or community.	
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Course Title:	Content Area:	Grade Level:	Credit (if applicable)					
Precalculus ACA	Mathematics	11-12	1.0					
<b>Course Description:</b>								
This course is the fourth course in the college preparatory mathematics sequence. It is a prerequisite for the analytic geometry and calculus course offered by colleges. Topics studied are algebraic functions, logarithms and exponential functions, trigonometric functions and conics. All topics studied will involve the use of a TI-83+ or TI-84+ graphing calculator. Students enrolled in this class must take the common mid-term and final assessment for Pre-Calculus Academic.								
<b>Aligned Core Resources:</b>		<b>Connection to the <a href="#">BPS Vision of the Graduate</a></b>						
<i>Precalculus</i> , 7th Edition (2022) by Robert F. Blitzer Published by Pearson		<b>CRITICAL THINKING AND PROBLEM SOLVING</b> <ul style="list-style-type: none"> <li>Collect, assess and analyze relevant information</li> <li>Reason effectively. Use systems thinking</li> <li>Make sound judgments and decisions.</li> <li>Identify, define and solve authentic problems and essential questions.</li> <li>Reflect critically on learning experience, processes and solutions</li> <li>Transfer knowledge to other situations</li> </ul> <b>CONTENT MASTERY</b> <ul style="list-style-type: none"> <li>Develop and draw from a baseline understanding of knowledge in academic disciplines from our Bristol curriculum.</li> </ul>						
<b>Additional Course Information:</b> Knowledge/Skill Dependent courses/prerequisites		Link to <a href="#">Completed Equity Audit</a>						
Algebra 2 prerequisite course		<a href="#">Equity Curriculum Review- PreCalculus</a>						
<b>Standard Matrix</b>								
	<b>Standard</b>	<b>Unit P</b>	<b>Unit 1</b>	<b>Unit 2</b>	<b>Unit 3</b>	<b>Unit 4</b>	<b>Unit 5</b>	<b>Unit 6</b>
	A.APR.7	X						
	A.APR.A.1			X				
	A.APR.B.2			X				
	A.APR.B.3			X				
	A.CED.1	X						
	A.CED.4	X						
	A.CED.A.2				X			
	A.REI.11	X			X			X
	A.REI.2	X						
	A.REI.3	X						
	A.REI.4	X						
	A.REI.D.11				X			X
	A.SSE.3	X			X			
	A.SSE.A.1			X	X			
	F.BF.4		X					
	F.BF.A.1		X		X			
	F.BF.B.3		X					
	F.BF.B.4		X					
	F.BF.B.5				X			
	F.IF.A.1		X					
	F.IF.A.2		X					

F.IF.B.4		X					
F.IF.B.5		X					
F.IF.C.7		X	X	X			
F.IF.C.8			X	X			
F.IF.C.9			X				
F.LE.A.1				X			
F.LE.A.2				X			
F.LE.A.3				X			
F.LE.A.4				X			
F.LE.B.5				X			
FTF.A.1					X		
FTF.A.2					X		
FTF.A.3					X		
FTF.A.4					X		
FTF.B.6					X		
FTF.C.8						X	
FTF.C.9						X	
G.SRT.C.6					X		
G.SRT.C.7					X		
G.SRT.C.8					X		
G.SRT.D.10						X	
G.SRT.D.11						X	
G.SRT.D.9						X	
HSA.CED.A.3							X
HSA.REI.C.6							X
HSA.REI.C.7							X
HSA.REI.D.12							X
N.CN.3			X				
N.CN.A.1			X				
N.CN.A.2			X				
N.CN.C.7			X				
N.CN.C.8			X				
N.CN.C.9			X				
S.ID.7	X						

See each unit for the standard language

## Unit Links

[Unit P: Fundamental Concepts of Algebra](#)

[Unit 1: Functions and Graphs](#)

[Unit 2: Polynomials and Rational functions](#)

[Unit 3: Exponential and Logarithmic Functions](#)

[Unit 4: Trigonometric Functions](#)

[Unit 5: Analytic Trigonometry](#)

[Unit 6: Systems of Equations and Inequalities](#)

Unit Title	
Unit P: Fundamental Concepts of Algebra	
Relevant Standards: Bold indicates priority	
<p><b>A.SSE.3</b> Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.</p> <ul style="list-style-type: none"> <li>• A.SSE.3a. Factor a quadratic expression to reveal the zeros of the function it defines.</li> <li>• A.SSE.3b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.</li> <li>• A.SSE.3c. Use the properties of exponents to transform expressions for exponential functions</li> </ul> <p><b>A.APR.7</b> (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.</p> <p><b>A.CED.1</b> Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple (rational) and exponential functions.</p> <p><b>A.REI.2</b> Solve simple (rational) and radical equations in one variable, and give examples showing how extraneous solutions may arise.</p> <p><b>A.CED.4</b> Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations.</p> <p><b>A.REI.3</b> Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.</p> <p><b>A.REI.4</b> Solve quadratic equation in one variable</p> <ul style="list-style-type: none"> <li>• A.REI.3a Use the method of completing the square to transform any quadratic equation in <math>x</math> into an equation of the form <math>(x - p)^2 = q</math> that has the same solutions. Derive the quadratic formula from this form. <math>2 = q</math></li> <li>• A.REI.3b Solve quadratic equations by inspection, taking square roots, completing the square, the quadratic formula, and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as <math>a \pm bi</math> for real numbers <math>a</math> and <math>b</math>.</li> </ul> <p><b>A.REI.11</b> Explain why the <math>x</math>-coordinates of the points where the graphs of the equations <math>y = f(x)</math> and <math>y = g(x)</math> intersect are the solution of the equation <math>f(x) = g(x)</math>; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where <math>f(x)</math> and <math>g(x)</math> are linear, polynomial, (rational), absolute value, exponential, and logarithmic functions.</p> <p><b>S.ID.7</b> Interpret the slope (rate of change) and the intercept of a linear model in the context of data</p>	
Essential Question(s)	Enduring Understanding(s)
<ul style="list-style-type: none"> <li>• Why do we structure expressions in different ways?</li> <li>• In what ways can the problem be solved, and why should one method be chosen over another?</li> <li>• How can the properties of the real number system be useful when working with polynomials and rational expressions?</li> <li>• Which function is being modeled in specific real world applications and how can I use acquired knowledge to solve the problem?</li> </ul>	<ul style="list-style-type: none"> <li>• Expressions can be written in multiple ways using the rules of algebra; each version of the expression tells something about the problem it represents.</li> <li>• There is often an optimal method of manipulating equations to solve a mathematical problem; however other methods, which may not be as efficient, can still provide insight to the problem.</li> <li>• Algebraic expressions such as polynomials and rational expressions, symbolize numerical relationships and can be manipulated in much the same way as numbers.</li> </ul>
Demonstration of Learning	Pacing for Unit
Homework Class Practice Readiness Quizzes Skills Check Quizzes Mid-Unit Checkpoint End of Unit Assessment	13 blocks
Family Overview (link below)	Integration of Technology:
<a href="#">Precalculus ACA - Family Overview (2024-25)</a> <a href="#">Precalculus ACA - Family Overview (2024-25) SPANISH</a>	TI-84 graphing calculator Desmos calculator
Unit-specific Vocabulary	Aligned Unit Materials, Resources, and Technology

	<b>(beyond core resources)</b>
Linear Equations, Slope, Y-intercept, Radical Equation, Rational Exponent, Rational Expression, Rational Equation, Extraneous Solution, Literal Equation, Quadratic Equation, Polynomial, Factoring, Square root method, Completing the square, Quadratic Formula, Radicand, Complex Number, Imaginary, Solution	TI-84 graphing calculator Desmos calculator Mini white boards Teacher created activities Vertical surfaces
<b>Opportunities for Interdisciplinary Connections</b>	<b>Anticipated misconceptions:</b>
<ul style="list-style-type: none"> <li>Quadratic expressions frequently appear in physics, especially in kinematics, where equations of motion describe how objects move under gravity.</li> <li>Quadratic equations model motion under gravity, where the height or position of an object is a function of time.</li> <li>Exponential functions model financial growth (compound interest) and depreciation (exponential decay).</li> <li>Exponential functions are crucial in biology for modeling population growth, radioactive decay, and disease spread.</li> </ul>	<ul style="list-style-type: none"> <li>Every quadratic equation can be factored easily.</li> <li>Completing the square is useful only to find the vertex of a quadratic function.</li> <li>The rules for simplifying polynomials apply to exponential expressions in the same way.</li> <li>Rational expressions can always be added, subtracted, multiplied, or divided without considering restrictions.</li> <li>Rearranging an equation always preserves all original solutions.</li> <li>The quadratic formula should always be used when solving quadratics.</li> <li>Every rational or radical equation has a valid solution.</li> <li>When solving <math>f(x)=g(x)</math> there is always a single intersection.</li> <li>Exponential growth can be analyzed using the concept of slope.</li> <li>A line's slope is always positive or negative.</li> </ul>
<b>Connections to Prior Units</b>	<b>Connections to Future Units</b>
These standards served as a bridge from Algebra 1 to Algebra 2 by establishing essential algebraic skills. Algebra 2 extended these ideas by introducing higher-degree polynomials, logarithms, complex numbers, advanced transformations, and real-world applications of these concepts.	These Algebra standards lay the foundation for more advanced topics in Precalculus, including polynomials, exponentials/logs, complex numbers, nonlinear systems, and limits. Each concept builds towards a deeper understanding of functions and prepares students for Calculus applications.
<b>Differentiation through Universal Design for Learning</b>	
<b>UDL Indicator</b>	<b>Teacher Actions</b>
<p><b>Multiple Means of Representation (Principle I)</b>  Consideration 2.5 - Illustrate through multiple media:  Use graphing technology (Desmos, GeoGebra) to show how different forms of an expression impact the graph.</p> <ul style="list-style-type: none"> <li>Show how factoring a quadratic highlights the zeros, while vertex form highlights the maximum/minimum.</li> <li>Have students manipulate sliders to see real-time changes in quadratic and exponential expressions.</li> </ul> <p>Consideration 3.2 - Highlight patterns, critical features, big ideas, and relationships:  Use step-by-step examples with color-coding to highlight transformations and relationships.</p> <ul style="list-style-type: none"> <li>Color different parts of an expression when factoring, completing the square, or using exponent rules.</li> <li>Provide scaffolded notes where students fill in missing steps to highlight key algebraic patterns.</li> </ul> <p><b>Multiple Means of Action &amp; Expression (Principle II)</b>  Consideration 5.1 - Use multiple media for communication:  Encourage students to verbally explain why they choose a particular algebraic method.</p> <ul style="list-style-type: none"> <li>Have students record voice memos or videos explaining how different forms of an expression provide insights.</li> <li>Use math journaling to reflect on how algebraic manipulations reveal different properties of functions.</li> </ul> <p><b>Multiple Means of Engagement (Principle III)</b>  Consideration 7.1 - Optimize individual choice and autonomy:  Provide students with a choice of problem-solving strategies.</p>	

- Example: Solve a quadratic equation using three different methods (factoring, completing the square, quadratic formula) and discuss which is most efficient.

Consideration 8.3 - Foster collaboration and community:

Encourage students to defend different algebraic methods.

- Pose a problem and have students debate the best method for solving it.
- Assign roles where some students advocate for factoring, while others argue for completing the square.

### Supporting Multilingual/English Learners

#### Related CELP standards

#### Learning Targets

A MLL can . . . determine the meaning of words and phrases in oral presentations and literary and informational text. I can rewrite and manipulate algebraic expressions, including polynomials and rational expressions, using algebraic rules to evaluate multiple solution methods to identify the most efficient strategy, while understanding how alternative approaches provide insight into mathematical relationships.

- **Level 1** – I can use numbers, symbols, and simple words to show how to rewrite basic algebraic expressions, such as combining like terms or factoring simple polynomials, with visual or guided support.
- **Level 2** – I can describe and follow steps to rewrite and simplify algebraic expressions, including polynomials and fractions, using models, word banks, and sentence frames.
- **Level 3** – I can explain how to rewrite and manipulate algebraic expressions, including polynomials and rational expressions, using algebraic rules, and describe how different methods lead to the same solution.
- **Level 4** – I can analyze and compare different methods of rewriting algebraic expressions, explain why one method may be more efficient than another, and describe how each approach provides insight into a mathematical problem.
- **Level 5** – I can justify my choice of algebraic manipulation strategies by evaluating efficiency, comparing alternative methods, and explaining how different forms of an expression reveal key mathematical relationships.

Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
P.2 Exponents and Scientific Notation	I can identify and apply the key rules of exponents to simplify expressions with exponents	<ul style="list-style-type: none"> <li>• I can apply the product rule, quotient rule, power of a power rule, negative exponent rule, and zero exponent rule to simplify expressions with exponents</li> <li>• I can demonstrate a clear understanding of how to manipulate exponents with the same base when multiplying, dividing, or raising to a power.</li> </ul>	
P.4 Polynomials	I can perform operations on polynomials	<ul style="list-style-type: none"> <li>• I can add, subtract, and multiply polynomials</li> </ul>	
P.5 Factoring Polynomials	I can factor polynomials	<ul style="list-style-type: none"> <li>• I can identify which type of factoring is needed.</li> <li>• I can factor by greatest common factor, grouping, trinomials, difference of squares.</li> </ul>	
P.6 Rational Expressions	I can use perform operations on rational expressions	<ul style="list-style-type: none"> <li>• I can simplify rational expressions</li> <li>• I can multiply, add and subtract rational expressions</li> </ul>	
P.7 Equations	I can solve polynomial equations using various methods	<ul style="list-style-type: none"> <li>• I can solve radical and rational equations</li> <li>• I can solve quadratic equations               <ul style="list-style-type: none"> <li>○ Quadratic formula (no complex numbers)</li> <li>○ completing the square</li> <li>○ Factoring</li> <li>○ Square root property</li> </ul> </li> </ul>	

<b>Unit Title</b>	
Unit 1: Functions and Graphs	
<b>Relevant Standards: Bold indicates priority</b>	
<b>F.IF.A.1</b> Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If $f$ is a function and $x$ is an element of its domain, then $f(x)$ denotes the output of $f$ corresponding to the input $x$ . The graph of $f$ is the graph of the equation $y = f(x)$ .	
<b>F.IF.A.2</b> Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.	
<b>F.IF.B.4</b> For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.	
<b>F.IF.B.5</b> Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function $h(n)$ gives the number of person-hours it takes to assemble $n$ engines in a factory, then the positive integers would be an appropriate domain for the function.	
<b>F.IF.C.7</b> Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.	
<ul style="list-style-type: none"> <li>● F.IF.C.7.B Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.</li> </ul>	
<b>F.BF.A.1</b> Write a function that describes a relationship between two quantities.	
<ul style="list-style-type: none"> <li>● F.BF.A.1.A Determine an explicit expression, a recursive process, or steps for calculation from a context.</li> </ul>	
<ul style="list-style-type: none"> <li>● F.BF.A.1.C (+) Compose functions. For example, if <math>T(y)</math> is the temperature in the atmosphere as a function of height, and <math>h(t)</math> is the height of a weather balloon as a function of time, then <math>T(h(t))</math> is the temperature at the location of the weather balloon as a function of time.</li> </ul>	
<ul style="list-style-type: none"> <li>● F.BF.B.3 Identify the effect on the graph of replacing <math>f(x)</math> by <math>f(x) + k</math>, <math>k f(x)</math>, <math>f(kx)</math>, and <math>f(x + k)</math> for specific values of <math>k</math> (both positive and negative); find the value of <math>k</math> given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.</li> </ul>	
<ul style="list-style-type: none"> <li>● F.BF.B.4 Find inverse functions. <ul style="list-style-type: none"> <li>○ F.BF.4a Solve an equation of the form <math>f(x) = c</math> for a simple function <math>f</math> that has an inverse and write an expression for the inverse. For example, <math>f(x) = 2(x^3)</math> or <math>f(x) = (x+1)/(x-1)</math> for <math>x \neq 1</math> (<math>x</math> not equal to 1).</li> <li>○ F.BF.4b (+) Verify by composition that one function is the inverse of another.</li> <li>○ F.BF.4c (+) Read values of an inverse function from a graph or a table, given that the function has an inverse.</li> <li>○ F.BF.4d (+) Produce an invertible function from a non-invertible function by restricting the domain.</li> </ul> </li> </ul>	
<b>Essential Question(s)</b>	<b>Enduring Understanding(s)</b>
<ul style="list-style-type: none"> <li>● What is a function and what are the different ways they can be represented?</li> <li>● How are functions used in the real world?</li> <li>● What are the key characteristics of a graph and why are they important?</li> <li>● How does composing functions affect the domain?</li> <li>● What is the relationship between a function and its inverse?</li> </ul>	<ul style="list-style-type: none"> <li>● A function is a specific type of relation where each input is associated with exactly one output. This concept is fundamental in describing how variables interact and is a building block for analyzing more complex mathematical relationships.</li> <li>● Functions can be transformed through translations, reflections, stretches, and compressions. These transformations affect the graph of the function and help in understanding how changes in the function's formula impact its graph.</li> <li>● Functions can be combined through addition, subtraction, multiplication, and division, and can be composed with each other. Understanding these operations is essential for building more complex functions and analyzing their behavior.</li> <li>● An inverse function essentially reverses the effect of the original function. Understanding how to find and use inverse functions is important for solving equations and understanding the relationship</li> </ul>

	<p>between functions and their inverses.</p> <ul style="list-style-type: none"> <li>• Functions are used to model and solve real-world problems in various fields such as physics, economics, biology, and engineering. Applying functions to practical situations helps in interpreting data and making predictions.</li> </ul>
<b>Demonstration of Learning</b>	<b>Pacing for Unit</b>
Homework Class Practice Readiness Quizzes Skills Check Quizzes Mid-Unit Checkpoint End of Unit Assessment	20 blocks
<b>Family Overview (link below)</b>	<b>Integration of Technology</b>
<a href="#">Precalculus ACA - Family Overview (2024-25)</a> <a href="#">Precalculus ACA - Family Overview (2024-25) SPANISH</a>	TI-84 graphing calculator Desmos calculator
<b>Unit-specific Vocabulary</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources)</b>
Function, Input, Output, Independent variable, Dependent variable, Domain, Range, Function notation: $f(x)$ , Parent function, Transformation, Translations, Vertical stretch, Vertical compression, Vertical reflection, Horizontal reflection, Piecewise function, Vertical line test, One-to-one function, Inverse function, Domain, Restricted domain, Composition	TI-84 graphing calculator Desmos calculator Mini white boards Teacher created activities Vertical surfaces
<b>Opportunities for Interdisciplinary Connections</b>	<b>Anticipated misconceptions</b>
<ul style="list-style-type: none"> <li>• Functions are used to model relationships between variables in science, such as the decay of radioactive substances, population growth, and the motion of objects.</li> <li>• Functions are the foundation of programming and computational thinking, used in defining algorithms, recursive processes, and data transformations.</li> <li>• Functions describe relationships in economics, such as cost, revenue, and profit models, as well as statistical trends in business.</li> </ul>	<ul style="list-style-type: none"> <li>• Every equation represents a function.</li> <li>• A function must always be a linear equation.</li> <li>• If a function has the same output for two different inputs, it is not a function.</li> <li>• The vertical line test determines if a graph is a function based on its shape alone.</li> <li>• Function notation <math>f(x) = y</math> means multiplication between <math>f</math> and <math>x</math>.</li> <li>• The domain of a function is always all real numbers.</li> <li>• Graph transformations (shifts, stretches, reflections) change the function's properties unpredictably.</li> <li>• The inverse of a function always exists.</li> <li>• Composing two functions always produces another function.</li> <li>• The <math>x</math>-values where two graphs intersect are only approximate solutions.</li> </ul>
<b>Connections to Prior Units</b>	<b>Connections to Future Units:</b>
<p><b>Algebraic Manipulation &amp; Functions</b> – Factoring, completing the square, and working with rational expressions (A.SSE.3, A.APR.7) help reveal key features of functions like zeros, domain restrictions, and asymptotic behavior.</p> <p><b>Function Transformations &amp; Equation Solving</b> – Graphing transformations (F.BF.B.3) align with solving and rearranging equations (A.REI.3, A.CED.4), while finding inverse functions (F.BF.4) requires algebraic solving</p>	<p>The Interpreting and Building Functions standards connect to future units by...</p> <ul style="list-style-type: none"> <li>• Preparing students for function transformations, composition, inverses, graphing, and real-world applications.</li> <li>• Understanding domain, range, and key features leads to advanced functions like trigonometric, logarithmic, and exponential functions.</li> <li>• Skills in composition and inverse functions help</li> </ul>

(A.REI.2). <b>Data Interpretation &amp; Functions</b> – Understanding slopes, intercepts, and key features of graphs (F.IF.B.4, S.ID.7) connects functions to real-world data trends.	with nested functions and transformations. <ul style="list-style-type: none"> <li>Graphing concepts extend to polynomials, rational functions, and asymptotic behavior.</li> <li>Modeling functions supports sequences, series, and calculus readiness.</li> </ul>
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**Differentiation through *Universal Design for Learning***

UDL Indicator	Teacher Actions:
<p><b>Multiple Means of Representation (Principle I)</b>            Consideration 1.2: Support multiple ways to perceive information – Use graphs, tables, equations, and real-world scenarios to show the same function in multiple ways.</p> <p>Consideration 3.2: Highlight patterns, critical features, big ideas, and relationships – Help students recognize transformations and connections between functions through color coding, annotations, and guided questions.</p> <p><b>Multiple Means of Action &amp; Expression (Principle II)</b>            Consideration 2.5: Illustrate through multiple media– Allow students to explain functions using writing, drawings, verbal descriptions, or digital tools.</p> <p>Consideration 6.3: Organize information and resources– Guide students in breaking down multi-step function problems through problem-solving scaffolds, peer discussions, and structured templates.</p>	<p><b>Multiple Means of Representation (Principle I)</b></p> <ul style="list-style-type: none"> <li>Interactive Technology: Use Desmos, GeoGebra, or graphing calculators to visually manipulate function transformations. Let students drag sliders to see how coefficients affect graphs dynamically.</li> <li>Color-Coded Notes: Assign different colors for transformations (e.g., green for shifts, blue for reflections) to help students track changes in equations vs. graphs.</li> <li>Real-World Analogy Mapping: Compare function transformations to real-world scenarios (e.g., stretching a rubber band = vertical stretch, flipping a pancake = reflection).</li> </ul> <p><b>Multiple Means of Action &amp; Expression (Principle II)</b></p> <ul style="list-style-type: none"> <li>Function Storytelling: Have students personify functions (e.g., "I am a quadratic function. My vertex is my home, and I always curve symmetrically!").</li> <li>Function Transformations Dance: Assign different movements for function transformations (e.g., stepping forward = horizontal shift, jumping = vertical shift, turning = reflection).</li> <li>Peer Teaching with Choice: Let students choose between creating a tutorial video, writing a math comic strip, or presenting a mini-lesson on function transformations.</li> </ul>

**Supporting Multilingual/English Learners**

Related <i>CELP standards</i> :	Learning Targets:
<p>A MLL can ... determine the meaning of words and phrases in oral presentations and literary and informational text. I can analyze and interpret functions by identifying key characteristics such as domain, range, intercepts, asymptotes, intervals of increase and decrease, and transformations, and represent them graphically and algebraically.</p> <ul style="list-style-type: none"> <li><b>Level 1</b> – I can use words, symbols, or gestures to show basic information about a function, such as points on a graph or increasing and decreasing parts.</li> <li><b>Level 2</b> – I can name and describe parts of a function, such as domain, range, or intercepts, using simple words, labels, and visuals.</li> <li><b>Level 3</b> – I can explain key features of a function, such as intercepts, asymptotes, or transformations, using simple sentences and diagrams.</li> <li><b>Level 4</b> – I can describe and compare functions by explaining their key characteristics, such as domain, range, and transformations, using mathematical vocabulary.</li> <li><b>Level 5</b> – I can analyze and justify how key characteristics of functions impact their graphs and equations using precise mathematical language in written and verbal explanations.</li> </ul>	

Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
1.2 Basics of functions and	<ul style="list-style-type: none"> <li>I can determine whether a relation is a function or not</li> </ul>	<ul style="list-style-type: none"> <li>I can determine if a relation is a function using               <ul style="list-style-type: none"> <li>A table of values</li> </ul> </li> </ul>	

their graphs	<ul style="list-style-type: none"> <li>I can determine the domain and range of a function</li> </ul>	<ul style="list-style-type: none"> <li>Vertical line test</li> <li>I can determine the domain and range given a graph</li> </ul>
1.3 More on functions and their graphs	<ul style="list-style-type: none"> <li>I can identify intervals on which a function increases or decreases</li> <li>I can locate relative extrema</li> </ul>	<ul style="list-style-type: none"> <li>I can identify intervals on which a function increases or decreases given a graph</li> <li>I can locate relative minima and maxima given a graph</li> </ul>
1.4 Linear functions and slope	I can analyze linear functions	<ul style="list-style-type: none"> <li>I can calculate slope</li> <li>I can write point slope form of equation</li> <li>I can write and graph slope-intercept form of an equation</li> <li>I can graph horizontal and vertical lines</li> <li>I can recognize and use standard form of an equation</li> <li>I can use intercepts to graph an equation</li> </ul>
1.6 Transformations of Functions	I can identify transformations of Functions	<ul style="list-style-type: none"> <li>I can use vertical shifts to graph functions</li> <li>I can use horizontal shifts to graph functions.</li> <li>I can use reflections to graph functions.</li> <li>I can use vertical stretching and shrinking to graph functions</li> <li>I can use horizontal stretching and shrinking to graph functions.</li> </ul>
1.7 Combinations of functions, composite functions	I can combine Functions	<ul style="list-style-type: none"> <li>I can combine functions using the algebra of functions.</li> <li>I can form composite functions</li> </ul>
1.8 Inverse functions	I can analyze the inverse of a function	<ul style="list-style-type: none"> <li>I can verify that functions are inverses.</li> <li>I can find the inverse of a function.</li> <li>I can use the horizontal line test to determine if a function has an inverse function.</li> </ul>
1.10 Modeling with functions	I can use functions to model real world situations	<ul style="list-style-type: none"> <li>I can construct functions from verbal descriptions.</li> <li>I can construct functions from formulas.</li> </ul>

Unit Title:	
Unit 2: Polynomials and Rational Functions	
Relevant Standards: Bold indicates priority	
<p><b>N.CN.A.1</b> Know there is a complex number <math>i</math> such that <math>i^2 = -1</math>, and every complex number has the form <math>a + bi</math> with <math>a</math> and <math>b</math> real.</p> <p><b>N.CN.A.2</b> Use the relation <math>i^2 = -1</math> and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.</p> <p><b>N.CN.3</b> Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.</p> <p><b>N.CN.C.7</b> Solve quadratic equations with real coefficients that have complex solutions.</p> <p><b>N.CN.C.8</b> Extend polynomial identities to the complex numbers. For example, rewrite <math>x^2 + 4</math> as <math>(x + 2i)(x - 2i)</math>.</p> <p><b>N.CN.C.9</b> Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.</p> <p><b>A.SSE.A.1</b> Interpret expressions that represent a quantity in terms of its context.</p> <p><b>A.SSE.B.3</b> Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.</p> <p><b>A.APR.A.1</b> Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.</p> <p><b>A.APR.B.2</b> Know and apply the Remainder Theorem: For a polynomial <math>p(x)</math> and a number <math>a</math>, the remainder on division by <math>x - a</math> is <math>p(a)</math>, so <math>p(a) = 0</math> if and only if <math>(x - a)</math> is a factor of <math>p(x)</math>.</p> <p><b>A.APR.B.3</b> Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.</p> <p><b>F.IF.C.7</b> Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.</p> <ul style="list-style-type: none"> <li>F.IF.C.7.C Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.</li> </ul> <p><b>F.IF.C.8</b> Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.</p> <p><b>F.IF.C.9</b> Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.</p>	
Essential Question(s):	Enduring Understanding(s):
<ul style="list-style-type: none"> <li>What are the defining characteristics of polynomial functions and how do their degrees and coefficients affect their behavior?</li> <li>Why are there different methods of finding the zeros of a polynomial and how do we decide which method is appropriate?</li> <li>How can polynomial functions represent real-life situations?</li> <li>What is the Fundamental Theorem of Algebra, and how does it relate to the existence of complex roots?</li> <li>How can you use the Factor Theorem and synthetic division to factorize polynomials?</li> <li>How do different types of variation apply to real-world problems, and how can understanding these relationships help solve those problems?</li> </ul>	<ul style="list-style-type: none"> <li>Polynomial functions can be classified by their degree, which determines their general shape and the maximum number of roots they can have.</li> <li>The degree and leading coefficient determine the end behavior of a polynomial function, which helps in sketching and analyzing graphs.</li> <li>The zeros/roots of a polynomial function correspond to the x-intercepts of its graph. The multiplicity of a zero affects the behavior of the graph at that intercept, such as whether it touches or crosses the x-axis.</li> <li>Polynomial functions model various real-world phenomena, from projectile motion to economics.</li> <li>The complex number set is composed of the real numbers and the imaginary numbers.</li> <li>Complex solutions will not be x-intercepts.</li> <li>The intermediate value theorem can be used to determine the zeros of a function.</li> <li>Recognizing symmetry in polynomial functions (even, odd, or neither) helps in graphing and analyzing these functions.</li> <li>The remainder theorem tells us that if a polynomial <math>f(x)</math> is divided by <math>x - c</math>, then the remainder is <math>f(c)</math>.</li> <li>The factor theorem tells us that if <math>f(c) = 0</math>, then <math>x - c</math> is a</li> </ul>

	<p>factor of <math>f(x)</math>.</p> <ul style="list-style-type: none"> <li>Graphs of rational functions have asymptotes and have many forms.</li> <li>Many real-life quantities can be modeled by types of variation including: direct, inverse, and joint.</li> </ul>
<b>Demonstration of Learning:</b>	<b>Pacing for Unit</b>
Homework Class Practice Readiness Quizzes Skills Check Quizzes Mid-Unit Checkpoint End of Unit Assessment	12 blocks
<b>Family Overview (link below)</b>	<b>Integration of Technology:</b>
<a href="#">Precalculus ACA - Family Overview (2024-25)</a> <a href="#">Precalculus ACA - Family Overview (2024-25) SPANISH</a>	TI-84 graphing calculator Desmos calculator
<b>Unit-specific Vocabulary:</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources):</b>
Complex Number, Complex Conjugate, Polynomial Function, Leading coefficient test, End Behavior, Multiplicities, Intermediate Value Theorem, Turning Points, Synthetic Division, Remainder Theorem, Factor Theorem, Rational Zero Theorem, Vertical Asymptote, Horizontal Asymptote, Slant Asymptote, Direct Variation, Inverse Variation, Joint Variation	TI-84 graphing calculator Desmos calculator Mini white boards Teacher created activities Vertical surfaces
<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions:</b>
<p><b>Science (Physics and Biology)</b></p> <ul style="list-style-type: none"> <li><b>Quadratic Expressions in Motion:</b> Completing the square helps analyze projectile motion by revealing the maximum height (vertex) of a thrown object.</li> <li><b>Exponential Functions in Growth &amp; Decay:</b> Transforming exponential expressions models radioactive decay, bacterial growth, and population dynamics.</li> </ul> <p><b>Finance &amp; Economics</b></p> <ul style="list-style-type: none"> <li><b>Interest &amp; Investment Models:</b> Exponential transformations explain compound interest and financial forecasting.</li> <li><b>Quadratic Cost &amp; Revenue Functions:</b> Factoring quadratics can help find break-even points in business models.</li> </ul> <p><b>Computer Science &amp; Engineering</b></p> <ul style="list-style-type: none"> <li><b>Algorithm Efficiency (Big-O Notation):</b> Exponential and polynomial expressions describe algorithm complexity.</li> <li><b>Structural Engineering:</b> Quadratic equations help model forces and stress in materials.</li> </ul>	<ul style="list-style-type: none"> <li>Factoring always works for quadratics.</li> <li>Completing the square is only for finding the vertex.</li> <li>Exponential expressions can be transformed like polynomials.</li> <li>Rational expressions can always be added, subtracted, multiplied, or divided without considering restrictions.</li> <li>Rearranging an equation always preserves all original solutions.</li> <li>The quadratic formula should always be used when solving quadratics.</li> <li>Every rational or radical equation has a valid solution.</li> <li>When solving <math>f(x)=g(x)</math>, there is always a single intersection.</li> <li>Exponential growth can be analyzed using the concept of slope.</li> <li>A line's slope is always positive or negative.</li> </ul>
<b>Connections to Prior Units:</b>	<b>Connections to Future Units:</b>
<ul style="list-style-type: none"> <li>Factoring quadratic expressions helps determine the x-intercepts (zeros) of a function. This is essential for graphing parabolas and understanding solutions to equations.</li> <li>Rewriting a quadratic function in vertex form by</li> </ul>	<ul style="list-style-type: none"> <li>Using exponent properties (e.g., rewriting <math>2^x = 8</math> as <math>x = \log_2(8)</math>) allows for solving exponential equations, essential in financial modeling, population growth, and radioactive decay.</li> </ul>

<p>completing the square reveals the maximum or minimum point, aiding in graphing and real-world applications like projectile motion.</p> <ul style="list-style-type: none"> <li>Using exponent properties to transform expressions reveals key features of exponential functions, helping in modeling financial growth, population changes, and radioactive decay.</li> <li>Adding, subtracting, multiplying, and dividing rational expressions mirrors operations with rational numbers. These functions often have asymptotes and discontinuities, crucial for graphing.</li> <li>Understanding where two function graphs intersect helps solve systems of equations, interpret business models (e.g., break-even analysis), and analyze competing trends in data.</li> </ul>	<ul style="list-style-type: none"> <li>Rearranging formulas (e.g., converting <math>A = Pe^{rt}</math> into <math>t = \frac{\ln(A/P)}{r}</math>) helps analyze interest rates, half-life problems, and inverse exponential relationships in scientific contexts.</li> <li>Applying factoring, completing the square, or algebraic methods to trigonometric functions (e.g., solving <math>2\sin^2(x) - \sin(x) - 1 = 0</math> by factoring) supports work in physics, engineering, and wave motion.</li> <li>Factoring and transforming expressions simplify trigonometric identities, such as rewriting <math>\cos^2(x) - \sin^2(x)</math> using polynomial techniques to reveal properties of sine and cosine graphs.</li> <li>Finding points of intersection between exponential and logarithmic functions or trigonometric and polynomial functions is crucial in modeling business trends, sound waves, and electrical circuits.</li> </ul>
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**Differentiation through *Universal Design for Learning***

UDL Indicator	Teacher Actions
<p><b>Multiple Means of Representation (Principle I)</b>            Consideration 1.3 Offer alternatives for visual information – Using dynamic graphing tools, interactive simulations, or color-coded diagrams can help students visualize polynomial functions, their end behavior, and how factors affect the graph.</p> <p>Consideration 3.2: Highlight patterns, critical features, big ideas, and relationships – Emphasizing key connections, such as the relationship between degree, roots, and graph shape, helps students generalize these mathematical concepts.</p>	<p><b>Visual and Interactive Tools</b> – Use graphing calculators, Desmos, or GeoGebra to explore polynomial and rational function behaviors dynamically.</p> <p><b>Real-World Applications</b> – Show how polynomial functions model real-life phenomena like physics (projectile motion) and economics (profit models) to improve relevance.</p> <p><b>Scaffolded Problem-Solving</b> – Use guided questioning and step-by-step problem-solving to help students analyze polynomials and apply theorems (Intermediate Value Theorem, Factor Theorem).</p> <p><b>Multiple Forms of Representation</b> – Present concepts using verbal explanations, symbolic notation, graphical representations, and real-world contexts to reach diverse learners.</p>

**Supporting Multilingual/English Learners**

Related <i>CELP standards</i> :	Learning Targets
<p>A MLL can . . . determine the meaning of words and phrases in oral presentations and literary and informational text. I can rewrite and manipulate algebraic expressions, including polynomials and rational expressions, using algebraic rules to evaluate multiple solution methods to identify the most efficient strategy, while understanding how alternative approaches provide insight into mathematical relationships.</p> <ul style="list-style-type: none"> <li><b>Level 1</b> – I can use numbers, symbols, and simple words to show how to rewrite basic algebraic expressions, such as combining like terms or factoring simple polynomials, with visual or guided support.</li> <li><b>Level 2</b> – I can describe and follow steps to rewrite and simplify algebraic expressions, including polynomials and fractions, using models, word banks, and sentence frames.</li> <li><b>Level 3</b> – I can explain how to rewrite and manipulate algebraic expressions, including polynomials and rational expressions, using algebraic rules, and describe how different methods lead to the same solution.</li> <li><b>Level 4</b> – I can analyze and compare different methods of rewriting algebraic expressions, explain why one method may be more efficient than another, and describe how each approach provides insight into a mathematical problem.</li> <li><b>Level 5</b> – I can justify my choice of algebraic manipulation strategies by evaluating efficiency, comparing alternative methods, and explaining how different forms of an expression reveal key mathematical relationships.</li> </ul>	

Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
2.1 Complex numbers	I can identify complex numbers and use them to solve problems	<ul style="list-style-type: none"> <li>• I can add and subtract complex numbers.</li> <li>• I can multiply complex numbers.</li> <li>• I can perform operations with square roots of negative numbers.</li> <li>• I can solve quadratic equations with complex solutions.</li> </ul>	
2.2 Quadratic functions	I can analyze quadratic functions	<ul style="list-style-type: none"> <li>• I can Recognize characteristics of parabolas.</li> <li>• I can graph parabolas.</li> <li>• I can determine a quadratic functions' max or min value.</li> <li>• I can solve problems involving a quadratic function's min or max value.</li> </ul>	
2.3 Polynomial Functions and Their Graphs	I can analyze polynomial functions	<ul style="list-style-type: none"> <li>• I can identify polynomial functions</li> <li>• I can recognize characteristics of graphs of polynomial functions.</li> <li>• I can determine end behavior.</li> <li>• I can Use factoring to find zeros of polynomial functions</li> <li>• I can identify zeros and their multiplicities</li> <li>• I can graph polynomial functions.</li> </ul>	
2.4 Dividing Polynomials Remainder and Factor Theorems.	I can divide polynomials	<ul style="list-style-type: none"> <li>• I can use long division to divide polynomials</li> <li>• I can use synthetic division to divide polynomials.</li> <li>• I can evaluate a polynomial using the remainder theorem.</li> <li>• I can use the factor theorem to solve a polynomial equation.</li> </ul>	
2.5 Zeros of polynomial functions	I can find zeros of a polynomial function.	<ul style="list-style-type: none"> <li>• I can solve polynomial equations.</li> <li>• I can use the linear factorization theorem to find polynomials with given zeros</li> </ul>	
2.6 Rational Functions and Their Graphs	I can analyze rational functions	<ul style="list-style-type: none"> <li>• I can find the domains of rational functions.</li> <li>• I can use arrow notation.</li> <li>• I can identify vertical asymptotes.</li> <li>• I can identify horizontal asymptotes</li> <li>• I can use transformations to graph rational functions.</li> <li>• I can graph rational functions.</li> </ul>	

**Unit Title**

Unit 3: Exponential and Logarithmic Functions

**Relevant Standards: Bold indicates priority****A.SSE.A.1** Interpret expressions that represent a quantity in terms of its context.

- A.SSE.A.1.B Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret  $P(1 + r)^n$  as the product of P and a factor not depending on P.

**A.SSE.B.3** Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

- A.SSE.B.3.C Use the properties of exponents to transform expressions for exponential functions. For example the expression  $1.15^t$  can be rewritten as  $1.15^{1/12} \approx 1.012^{12t}$  to reveal the approximate equivalent monthly interest rate if the annual rate is 15%.

**A.CED.A.2** Create equations that describe numbers or relationships. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.**A.REI.D.11** Explain why the x-coordinates of the points where the graphs of the equations  $y = f(x)$  and  $y = g(x)$  intersect are the solutions of the equation  $f(x) = g(x)$ ; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where  $f(x)$  and/or  $g(x)$  are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.**F.IF.C.7** Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.

- F.IF.C.7.E Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.

**F.IF.C.8** Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.

- F.IF.C.8.B Use the properties of exponents to interpret expressions for exponential functions. For example, identify percent rate of change in functions such as  $y = 1.02^t$ ,  $y = 0.97^t$ ,  $y = 1.01^{12t}$ ,  $y = 1.2^{t/10}$ , and classify them as representing exponential growth and decay.

**F.BF.A.1** Write a function that describes a relationship between two quantities.**F.BF.B.5** Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.**F.LE.A.1** Distinguish between situations that can be modeled with linear functions and with exponential functions.

- F.LE.A.1.C Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.

**F.LE.A.2** Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).**F.LE.A.3** Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.**F.LE.A.4** For exponential models, express as a logarithm the solution to  $ab^{ct} = d$  where a, c, and d are numbers and the base b is 2, 10, or e; evaluate the logarithm using technology.**F.LE.B.5** Interpret the parameters in a linear or exponential function in terms of a context.**S.ID.B.6** Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.

- S.ID.B.6.A Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.

**Essential Question(s)**

- How can exponential functions be used to model growth and decay?
- What is the purpose of logarithms and exponential functions and how are they related to each other?
- How do you graph exponential and logarithmic functions by analyzing intercepts and end behavior?
- How are exponential and logarithmic functions used to model real-world phenomena?

**Enduring Understanding(s):**

- Exponential functions model situations which grow or decline at a constant percent rate.
- Graphing exponential functions and logarithmic functions will result in asymptotic behavior. Transformations (shifts, stretches, reflections) will affect the graphs.
- Logarithms can be used to solve exponential functions; and conversely, exponents are used to solve logarithmic equations.

	<ul style="list-style-type: none"> <li>Logarithms can be used to solve equations for which no other algebraic method exists.</li> <li>Exponential functions model situations involving growth or decay, such as population growth, radioactive decay, and interest calculations, while logarithmic functions are used to model phenomena like the Richter scale for earthquakes and pH in chemistry.</li> <li>Exponential and logarithmic functions are inverse functions.</li> </ul>
<b>Demonstration of Learning</b>	<b>Pacing for Unit</b>
Homework Class Practice Readiness Quizzes Skills Check Quizzes Mid-Unit Checkpoint End of Unit Assessment	10 blocks
<b>Family Overview (link below)</b>	<b>Integration of Technology</b>
<a href="#">Precalculus ACA - Family Overview (2024-25)</a> <a href="#">Precalculus ACA - Family Overview (2024-25) SPANISH</a>	TI-84 graphing calculator Desmos calculator
<b>Unit-specific Vocabulary</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources)</b>
Exponential Growth, Exponential Decay, Exponential Function, Exponential Regression, Growth Factor, Decay Factor, Compounded monthly, quarterly, etc. Asymptote, Base, Natural base e, Compounded continuously, Logarithm, Logarithmic Regression, Common Logarithm, Natural Logarithm, Power Function, Logarithmic Equation, Extraneous Solution, Inverse functions	TI-84 graphing calculator Desmos calculator Mini white boards Teacher created activities Vertical surfaces
<b>Opportunities for Interdisciplinary Connections</b>	<b>Anticipated misconceptions</b>
<b>Science (Physics, Biology, and Chemistry)</b> <ul style="list-style-type: none"> <li><b>Radioactive Decay &amp; Half-Life (Physics &amp; Chemistry):</b> Exponential decay models how radioactive substances break down over time. The half-life formula uses logarithms to determine how long it takes for a substance to decay to a certain amount.</li> <li><b>pH Scale (Chemistry):</b> Logarithmic functions are used to measure acidity and alkalinity, where pH is the negative logarithm of the hydrogen ion concentration.</li> <li><b>Population Growth (Biology &amp; Ecology):</b> Exponential functions model how populations grow under ideal conditions, and logistic growth models (which incorporate carrying capacity) adjust the exponential model for limited resources.</li> </ul> <b>Economics &amp; Finance</b> <ul style="list-style-type: none"> <li><b>Compound Interest:</b> Exponential functions describe how money grows in savings accounts, investments, and loans. The compound interest formula uses exponents, and logarithms are used to solve for unknown time periods or rates.</li> <li><b>Inflation &amp; Depreciation:</b> Economic trends like</li> </ul>	<ul style="list-style-type: none"> <li>Misunderstanding the structure of expressions- seeing each term in an algebraic expression separately rather than recognizing the expression's overall structure.</li> <li>Believing that equivalent expressions are always identical in appearance.</li> <li>incorrectly apply exponent rules, such as thinking <math>(a^b)^c = a^{b+c}</math> instead of <math>a^{bc}</math>.</li> <li>Assuming exponential growth means a constant increase in the function's output, like linear growth.</li> <li>Treating logarithms as unrelated to exponents instead of understanding them as inverses.</li> <li>Believing that every function graph must cross the x-axis (e.g., assuming all polynomials have real roots).</li> <li>Automatically applying linear models, even when an exponential or quadratic model fits better.</li> <li>Thinking that an asymptote is a physical boundary the graph cannot cross.</li> <li>Thinking the <math>b</math> in <math>y = ab^x</math> represents the total amount rather than the growth/decay factor per unit interval.</li> <li>Believing transformations only affect shape but not key features like intercepts, end behavior, and asymptotes.</li> </ul>

<p>inflation (increasing prices over time) and depreciation (value loss of assets) are modeled using exponential functions.</p> <p><b>Earth Science &amp; Natural Disasters</b></p> <ul style="list-style-type: none"> <li>● <b>Richter Scale for Earthquakes:</b> The Richter scale is logarithmic, meaning that an earthquake of magnitude 6 is 10 times stronger than a magnitude 5.</li> <li>● <b>Sound Intensity (Decibels):</b> Logarithmic functions are used in measuring sound levels in decibels, where an increase of 10 dB represents a tenfold increase in intensity.</li> <li>● <b>Carbon Dating:</b> Scientists use exponential decay equations to estimate the age of fossils and ancient artifacts by analyzing the remaining Carbon-14 in the sample.</li> </ul>	
<p><b>Connections to Prior Units</b></p> <ul style="list-style-type: none"> <li>● Exponential functions model constant percent growth or decay, distinguishing them from linear and polynomial functions that grow at a constant rate or degree-based rate.</li> <li>● Just like polynomial and rational functions, exponential and logarithmic functions can undergo transformations such as shifts, reflections, and stretches.</li> <li>● Logarithms and exponentials are inverse functions, similar to how square and square root functions relate.</li> <li>● Rational functions and logarithmic functions both model asymptotic behavior, meaning they never cross a certain boundary.</li> </ul>	<p><b>Connections to Future Units</b></p> <ul style="list-style-type: none"> <li>● Solving Trigonometric Equations Involving Exponents and Logarithms: In physics and engineering, exponential functions often appear in damping or wave equations.</li> <li>● Logarithms and Periodic Growth: Logarithms are used in measuring decibels (sound intensity), earthquake magnitudes (Richter scale), and pH levels (acidity), all of which relate to oscillatory or wave-based phenomena.</li> <li>● The Fourier Transform, a key tool in signal processing, represents periodic wave functions (trigonometry) as sums of exponentials (Euler's formula).</li> <li>● The logarithmic spiral, which appears in nature (e.g., shells, hurricanes), is modeled using both exponential and trigonometric functions <math>r = ae^{b\theta}</math>. This function combines exponential growth (size increases) with circular motion (angle-based progression).</li> </ul>
<p><b>Differentiation through <i>Universal Design for Learning</i></b></p>	
<p><b>UDL Indicator</b></p> <p><b>Multiple Means of Representation (Principle 1)</b>          Consideration 1.1 Perception:          Provide options for perception by offering multiple formats (e.g., visual, auditory, kinesthetic) for understanding exponential growth, decay, and transformations in graphs.</p> <p>Consideration 1.2 Language &amp; Symbols:          Clarify vocabulary and symbols by providing definitions, explanations, and examples of terms like growth/decay, logarithms, and transformations.</p>	<p><b>Teacher Actions</b></p> <p><b>Multiple Means of Representation (Principle 1)</b></p> <ul style="list-style-type: none"> <li>● Present the exponential function <math>y = P(1 + r)^t</math> using multiple formats, such as a table, graph, and verbal explanation. Use graphing software (like Desmos or GeoGebra) to show the curve's shape and asymptotic behavior.</li> <li>● Offer a visual representation alongside a text-based explanation for students with different learning preferences.</li> <li>● Provide animated videos showing the behavior of exponential growth (such as population growth) and decay (such as radioactive decay), so students can see how these concepts evolve over time.</li> <li>● Simplify complex expressions by breaking them down into smaller, more digestible pieces.</li> </ul>
<p><b>Supporting Multilingual/English Learners</b></p>	

Related <b>CELP standards:</b>		Learning Targets	
<p>A MLL can ... determine the meaning of words and phrases in oral presentations and literary and informational text. I can analyze and graph exponential and logarithmic functions by identifying key characteristics such as growth and decay, intercepts, asymptotes, and transformations, and I can solve related equations and inequalities to model and solve real-world problems.</p> <ul style="list-style-type: none"> <li>● <b>Level 1</b> - I can point to and recognize pictures and labels of exponential and logarithmic function graphs, noticing simple parts like where the graph goes up, down, or gets close to a line.</li> <li>● <b>Level 2</b> - I can match basic terms (growth, decay, intercept, asymptote, transformation) with examples on exponential and logarithmic graphs using word banks and visuals.</li> <li>● <b>Level 3</b> - I can describe and label parts of exponential and logarithmic function graphs using key vocabulary (growth, decay, intercepts, asymptotes, and transformations) and solve simple related equations.</li> <li>● <b>Level 4</b> - I can analyze and graph exponential and logarithmic functions by identifying key features—such as growth, decay, intercepts, asymptotes, and transformations—and solve equations and inequalities that model real-world problems.</li> <li>● <b>Level 5</b> - I can independently analyze, graph, and solve complex equations and inequalities involving exponential and logarithmic functions by accurately identifying key characteristics (growth, decay, intercepts, asymptotes, and transformations) and applying these concepts to model and address real-world scenarios.</li> </ul>			
Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
3.1 Exponential Functions	I can analyze exponential functions	<ul style="list-style-type: none"> <li>● I can evaluate exponential functions</li> <li>● I can graph exponential functions</li> <li>● I can evaluate functions with base e.</li> <li>● I can use compound interest formula.</li> </ul>	
3.2 Logarithmic Functions	I can analyze logarithmic functions	<ul style="list-style-type: none"> <li>● I can change from log to exponential form.</li> <li>● I can change from exponential to log form.</li> <li>● I can evaluate logarithms.</li> <li>● I can use basic logarithmic properties.</li> <li>● I can use common and natural logarithms</li> </ul>	
3.3 Properties of Logarithms	I can use properties of logarithms to find equivalent expressions	<ul style="list-style-type: none"> <li>● I can use the product rule.</li> <li>● I can use the quotient rule.</li> <li>● I can use the power rule.</li> <li>● I can expand logarithmic expressions.</li> <li>● I can condense logarithmic expressions.</li> <li>● I can use the the change of base property</li> </ul>	
3.4 Exponential and Logarithmic Equations	I can solve exponential and logarithmic equations.	<ul style="list-style-type: none"> <li>● I can use like bases to solve exponential equations.</li> <li>● I can use logarithmic to solve exponential equations</li> <li>● I can use the definition of a logarithm to solve logarithmic equations.</li> </ul>	
3.5 Exponential Growth and Decay	I can solve real world problems using logarithms.	<ul style="list-style-type: none"> <li>● I can model exponential growth and decay.</li> <li>● I can use logistic growth models.</li> <li>● I can express and exponential model in base e.</li> </ul>	

Unit Title	
Unit 4: Trigonometric Functions	
Relevant Standards: Bold indicates priority	
<p><b>F.TF.A.1</b> Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.</p> <p><b>F.TF.A.2</b> Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.</p> <p><b>F.TF.A.3</b> Use special triangles to determine geometrically the values of sine, cosine, tangent for <math>\pi/3</math>, <math>\pi/4</math> and <math>\pi/6</math>, and use the unit circle to express the values of sine, cosine, and tangent for <math>\pi - x</math>, <math>\pi + x</math>, and <math>2\pi - x</math> in terms of their values for <math>x</math>, where <math>x</math> is any real number.</p> <p><b>F.TF.A.4</b> Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.</p> <p><b>F.TF.B.6</b> Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.</p> <p><b>G.SRT.C.6</b> Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.</p> <p><b>G.SRT.C.7</b> Explain and use the relationship between the sine and cosine of complementary angles.</p> <p><b>G.SRT.C.8</b> Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.</p>	
Essential Question(s)	Enduring Understanding(s)
<ul style="list-style-type: none"> <li>• How are sine, cosine, and tangent defined using the sides of a right triangle?</li> <li>• What are the reciprocal trigonometric ratios (cosecant, secant, cotangent)?</li> <li>• How do the coordinates of points on the unit circle relate to trigonometric functions?</li> <li>• What are the radian and degree measures, and how do they relate to each other?</li> <li>• How do amplitude, period, phase shift, and vertical shift affect the graphs of trigonometric functions?</li> <li>• What are the key features of the graphs of sine, cosine, tangent, cosecant, secant, and cotangent functions?</li> <li>• What are the definitions and domains of the inverse sine, cosine, and tangent functions?</li> <li>• How are the inverse functions used to find angles given a trigonometric ratio?</li> </ul>	<ul style="list-style-type: none"> <li>• The trigonometric functions (sine, cosine, tangent, and their reciprocals) represent specific relationships between the angles and side lengths of a right triangle. Understanding these functions as ratios helps students connect geometric intuition with algebraic representation.</li> <li>• The unit circle is a foundational concept in trigonometry that connects the angle measures in radians with the coordinates of points on the circle. This understanding leads to the concept of periodicity in trigonometric functions, where patterns repeat over regular intervals.</li> <li>• The graphs of sine, cosine, and tangent functions exhibit unique characteristics such as amplitude, period, phase shift, and vertical shift. Recognizing these properties allows students to model real-world phenomena and understand oscillatory behavior.</li> <li>• Inverse trigonometric functions, such as arcsine, arccosine, and arctangent, are essential for finding angles when given a trigonometric ratio. Understanding their domains, ranges, and interpretations is crucial for solving trigonometric equations and modeling.</li> <li>• Trigonometric functions can be represented analytically (using equations) and graphically (using graphs). Understanding both forms and how they interrelate is important for solving problems and interpreting data.</li> <li>• Understanding different units of angle measurement, such as degrees and radians, and how to convert between them is crucial for working with trigonometric functions and applying them in various contexts.</li> </ul>
Demonstration of Learning	Pacing for Unit
Homework Class Practice Readiness Quizzes	16 blocks

Skills Check Quizzes Mid-Unit Checkpoint End of Unit Assessment	
<b>Family Overview (link below)</b>	<b>Integration of Technology</b>
<a href="#">Precalculus ACA - Family Overview (2024-25)</a> <a href="#">Precalculus ACA - Family Overview (2024-25) SPANISH</a>	TI-84 graphing calculator Desmos calculator
<b>Unit-specific Vocabulary</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources)</b>
Radian, Degree, Coterminal Angles, Complement, Supplement, Sine, Cosine, Tangent, Secant, Cosecant, Cotangent, Reference Angle, Unit Circle, Amplitude, period	TI-84 graphing calculator Desmos calculator Mini white boards Teacher created activities Vertical surfaces
<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions</b>
<p><b>Physics: Wave Motion and Harmonics</b> Trigonometric functions such as sine and cosine are commonly used to model wave motion, which is a fundamental concept in physics. The oscillations of waves, such as sound waves, light waves, and mechanical vibrations, can be described using trigonometric functions. The concepts of amplitude, period, and phase shift are used to understand wave behavior and harmonic motion.</p> <p><b>Engineering: Signal Processing</b> In electrical engineering, trigonometric functions are integral to analyzing and designing circuits, particularly in signal processing. The concept of periodicity in trigonometric functions is crucial for understanding alternating current (AC) signals and their behaviors over time.</p> <p><b>Astronomy: Orbital Mechanics</b> Trigonometry plays a vital role in astronomy and space science, especially in understanding the orbits of planets and satellites. The unit circle and trigonometric functions are used to calculate the positions of celestial bodies and to model orbital motion, such as the movement of planets around the sun or artificial satellites orbiting Earth.</p> <p><b>Computer Science: Graphics and Animation</b> Trigonometric functions are foundational in computer graphics, particularly in the rendering of 3D graphics and animations. Sine and cosine functions help model rotations and scaling transformations of objects in a virtual space.</p> <p><b>Economics: Cyclical Behavior and Seasonal Trends</b> Trigonometric functions can be used to model cyclical or periodic behaviors in economics, such as seasonal demand, temperature fluctuations, or economic cycles. Understanding how periodic functions like sine and cosine apply to real-world data can help economists predict trends and make forecasts.</p>	<ul style="list-style-type: none"> <li>• Students often confuse radians and degrees as two equivalent systems of measuring angles, without fully understanding the concept of radians as the ratio of the arc length to the radius on the unit circle.</li> <li>• Thinking that the unit circle and trigonometric functions only apply to angles within one full rotation (0 to 360 degrees or 0 to <math>2\pi</math> radians).</li> <li>• Students may not fully grasp that trigonometric functions (like sine, cosine, and tangent) repeat at regular intervals (i.e., they are periodic functions).</li> <li>• Thinking that all angles on the unit circle are positive (in a counterclockwise direction), neglecting the fact that angles can also be negative, which correspond to clockwise motion.</li> <li>• Incorrectly applying the unit circle by misunderstanding how to find the sine, cosine, and tangent values based on the coordinates on the unit circle.</li> <li>• Mistaking special triangle values for all angles</li> </ul>
<b>Connections to Prior Units:</b>	<b>Connections to Future Units:</b>

<ul style="list-style-type: none"> <li>• Just as algebraic functions (polynomials, rational functions) undergo transformations such as shifts, reflections, and stretches, so do trigonometric functions. These transformations (e.g., amplitude changes, phase shifts, vertical shifts) help students understand how functions behave in a coordinate plane, similar to the transformations applied to polynomial or rational graphs.</li> <li>• Exponential functions and trigonometric functions are deeply connected through Euler’s formula, <math>e^{ix} = \cos(x) + i\sin(x)</math>. This formula connects exponential growth or decay to trigonometric functions, demonstrating how trigonometric functions can model oscillatory behavior (e.g., in waveforms) alongside exponential growth or decay.</li> <li>• Trigonometric identities (such as the Pythagorean identity <math>\sin^2(x) + \cos^2(x) = 1</math>) allow trigonometric expressions to be simplified into polynomial forms. This is useful for solving equations that may involve both trigonometric and polynomial terms.</li> </ul>	<ul style="list-style-type: none"> <li>• Analytic trigonometry involves the use of identities (like the Pythagorean identity, sum and difference formulas, etc.) to simplify trigonometric expressions and solve equations. For example, solving trigonometric equations often requires applying identities to reduce complex expressions into simpler forms, making the equations easier to handle analytically.</li> <li>• Systems of equations that involve trigonometric functions can often be solved using algebraic techniques, such as substitution or elimination. For example, if you have a system that involves both sine and cosine, you might use the Pythagorean identity <math>\sin^2(x) + \cos^2(x) = 1</math> to convert one equation into a simpler form.</li> <li>• In analytic trigonometry, inverse functions (like arcsin, arccos, and arctan) are used to solve for angles in trigonometric equations. These functions allow us to find specific angle measures when given a trigonometric ratio, which is essential when solving systems of equations involving trigonometric relationships.</li> <li>• In systems of equations, graphing trigonometric functions can visually show the solutions where different trigonometric functions intersect. For instance, solving a system of two sine and cosine equations can be done graphically by plotting the functions and identifying where their graphs intersect, providing a visual understanding of the solution.</li> </ul>
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**Differentiation through *Universal Design for Learning***

<b>UDL Indicator</b>	<b>Teacher Actions:</b>
<p><b>Representation</b> Clarify vocabulary, symbols, and language structures for trigonometric functions (2.1)</p>	<ul style="list-style-type: none"> <li>• Have students create index cards for key trigonometric terms (e.g., amplitude, period, phase shift, vertical shift, unit circle, radian). They can write the term on one side and a definition with a sketch or example on the other. Use these cards in a memory match or Jeopardy-style game to reinforce definitions and symbols. These same cards can be used as a fun “heads up” game.</li> <li>• Create a class set of index cards where one card has the vocabulary term and the other has the definition and students need to find their match.</li> <li>• Set up a digital or physical vocabulary wall where each key term is displayed with its definition, symbol, and a visual representation (e.g., a graph highlighting the amplitude or a unit circle with marked angles). Allow students to add sticky notes or digital comments with examples or questions, creating a collaborative resource they can reference throughout the unit.</li> <li>• Challenge students to create a short video, song, or digital poster that explains a set of trigonometric vocabulary and symbols. For instance, they might create a catchy mnemonic song for “SOH CAH TOA” while illustrating what each term means with</li> </ul>

examples from graphs or the unit circle. Sharing these projects in class reinforces language structures and provides multiple representations of the same information.

### Supporting Multilingual/English Learners

#### Related CELP standards:

#### Learning Targets:

A MLL can . . . determine the meaning of words and phrases in oral presentations and literary and informational text. I can analyze and graph trigonometric functions by identifying key characteristics such as amplitude, period, phase shift, and vertical shift, and apply these concepts to model periodic real-world scenarios.

- **Level 1** - I can recognize and point to parts of a sine or cosine graph using pictures and simple labels.
- **Level 2** - I can match basic terms like “maximum,” “minimum,” “wave,” and “interval” with features on a trigonometric graph using visual supports and word banks.
- **Level 3** - I can label the key features of trigonometric graphs—amplitude, period, phase shift, and vertical shift—using provided sentence frames and visuals.
- **Level 4** - I can analyze and graph trigonometric functions by identifying and explaining how amplitude, period, phase shift, and vertical shift affect the graph’s shape.
- **Level 5** - I can independently analyze and graph trigonometric functions by accurately interpreting amplitude, period, phase shift, and vertical shift and applying these concepts to model periodic real-world scenarios.

Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
4.1 Angles and Radian Measure	I can recognize and use the vocabulary of angles	<ul style="list-style-type: none"> <li>• I can use degree measure.</li> <li>• I can use radian measure.</li> <li>• I can convert between degrees and radians.</li> <li>• I can draw angles in standard position.</li> <li>• I can find coterminal angles.</li> <li>• I can find the length of a circular arc.</li> <li>• I can use linear and angular speed to describe motion on a circular arc.</li> </ul>	
4.2 Trigonometric Functions: The unit Circle	I can use a unit circle to define trigonometric functions of real numbers	<ul style="list-style-type: none"> <li>• I can recognize the domain and range of sine and cosine functions.</li> <li>• I can find exact values of trigonometric functions</li> <li>• I can evaluate trigonometric functions.</li> </ul>	
4.3 Right Triangle Trigonometry	I can use right triangles to evaluate trigonometric functions.	<ul style="list-style-type: none"> <li>• I can find function values for 30 degrees and 60 degrees.</li> <li>• I can use right triangle trig to solve applied problems.</li> </ul>	
6.1 The Law of Sines	I can use the Law of Sines to solve triangles.	<ul style="list-style-type: none"> <li>• I can use the law of sines to solve oblique triangles.</li> <li>• I can use the law of sines to solve, if possible, the triangle or triangles in the ambiguous case.</li> <li>• I can find the area of an oblique triangle.</li> <li>• I can solve applied problems using the law of sines.</li> </ul>	
6.2 Law of Cosines	I can use the Law of Cosines to solve triangles	<ul style="list-style-type: none"> <li>• I can use the law of cosines to solve oblique triangles.</li> <li>• I can solve applied problems using the law of cosines.</li> <li>• I can use heron’s formula to find the area of a triangle</li> </ul>	
4.4 Trigonometric Functions of Any Angle	I can use the definitions of trigonometric functions of any angle.	<ul style="list-style-type: none"> <li>• I can use the signs of the trigonometric functions.</li> <li>• I can find reference angles.</li> <li>• I can use reference angles to evaluate trigonometric functions.</li> </ul>	
4.5 Graphs of Sine and Cosine Functions	I can understand the graphs of Sin and Cos Functions	<ul style="list-style-type: none"> <li>• I can graph variations of a sine function.</li> <li>• I can graph variations of a cosine function.</li> <li>• I can use vertical shifts of sine and cosine curves.</li> <li>• I can model periodic behavior.</li> </ul>	

4.7 Inverse Trigonometric Functions	I can understand and use the inverse sin and cos functions.	<ul style="list-style-type: none"> <li>• I can find exact values of inverse sin and cos functions.</li> </ul>
4.8 Applications of Trigonometric Functions	I can use Trigonometry to solve applied problems.	<ul style="list-style-type: none"> <li>• I can solve a right triangle.</li> <li>• I can solve problems involving bearing.</li> </ul>

Unit Title	
Unit 5: Analytic Trigonometry	
Relevant Standards: Bold indicates priority	
<p><b>FT.F.C.8</b> Prove the Pythagorean identity <math>\sin^2(\theta) + \cos^2(\theta) = 1</math> and use it to find <math>\sin(\theta)</math>, <math>\cos(\theta)</math>, or <math>\tan(\theta)</math> given <math>\sin(\theta)</math>, <math>\cos(\theta)</math>, <math>\tan(\theta)</math> and the quadrant of the angle.</p> <p><b>FT.F.C.9</b> Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems</p> <p><b>A.SSE.A.2</b> Use the structure of an expression to identify ways to rewrite it.</p> <p><b>G.SRT.D.9</b> Apply trigonometry to general triangles. Derive the formula <math>A = (1/2)ab \sin(C)</math> for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.</p> <p><b>G.SRT.D.10</b> Apply trigonometry to general triangles. Prove the Laws of Sines and Cosines and use them to solve problems.</p> <p><b>G.SRT.D.11</b> Apply trigonometry to general triangles. Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).</p>	
Essential Question(s)	Enduring Understanding(s)
<ul style="list-style-type: none"> <li>• Why do we structure trig functions in different ways?</li> <li>• What is the difference between solving an equation and verifying a trigonometric identity?</li> <li>• How do you decide which strategies to use when verifying a trigonometric identity?</li> <li>• How are trigonometric identities used in the process of solving trig equations?</li> <li>• How are trigonometric ratios used in solving real-world problems?</li> <li>• How do you determine whether the law of sines or law of cosines is most appropriate for solving a particular problem?</li> <li>• In ambiguous cases, how many possible triangles can the Law of Sines produce?</li> <li>• Is it possible to solve for the area of a triangle if the altitude is not known?</li> <li>• What kind of real-life situations can be modeled by sinusoidal equations?</li> <li>• How can sinusoidal equations be used to predict future values?</li> <li>• How can the area of a triangle be found using the law of sines and cosines?</li> </ul>	<ul style="list-style-type: none"> <li>• Trigonometric functions are useful for modeling periodic phenomena.</li> <li>• Expressions can be written in multiple ways using the rules of Trigonometry and Algebra and used to solve trigonometric functions.</li> <li>• The law of sines and cosines are fundamental trigonometry laws that can be used to solve problems involving the sides and angles of non-right triangles.</li> <li>• In a non-right triangle the given information determines which law is most appropriate to solve a problem.</li> <li>• When you know two sides and a non-included angle (SSA), there can be zero, one, or two possible triangles, known as the "ambiguous case."</li> <li>• If the altitude of a non-right triangle is not given, it can be expressed using trigonometry and used to calculate its area.</li> </ul>
Demonstration of Learning:	Pacing for Unit
Homework Class Practice Readiness Quizzes Skills Check Quizzes Mid-Unit Checkpoint End of Unit Assessment	5 blocks
Family Overview (link below)	Integration of Technology
<a href="#">Precalculus ACA - Family Overview (2024-25)</a> <a href="#">Precalculus ACA - Family Overview (2024-25) SPANISH</a>	TI-84 graphing calculator Desmos calculator
Unit-specific Vocabulary	Aligned Unit Materials, Resources, and Technology (beyond core resources)
Sine, Cosine, Tangent, Secant, Cosecant, Cotangent, Sum Formula, Difference Formula, Double Angle Formula, Half Angle Formulas, Pythagorean identity, Pythagorean theorem, Unit circle, Quotient identity, Law of Sines, Law	TI-84 graphing calculator Desmos calculator Mini white boards Teacher created activities

of Cosines, Angle of Elevation, Angle of Depression, Bearings, Heron's Formula, Ambiguous Case, Included Angle, Solving Triangles, Acute Triangle, Right Triangle, Obtuse Triangle, Oblique Triangle	Vertical surfaces
<b>Opportunities for Interdisciplinary Connections:</b>	<b>Anticipated misconceptions:</b>
<p><b>Physics - Wave Motion and Oscillations:</b> Trigonometric functions (especially sine and cosine) model periodic phenomena such as sound waves, light waves, and mechanical vibrations. Understanding the relationships between the amplitude, frequency, and phase of wave functions helps students in physics to analyze oscillatory systems.</p> <p><b>Engineering - Signal Processing and Electrical Engineering:</b> Analytical trigonometry plays a key role in signal processing, particularly in analyzing alternating current (AC) circuits and Fourier transforms. Engineers use sine and cosine functions to model signals and study the frequency and phase shifts in electrical systems.</p> <p><b>Astronomy - Orbital Mechanics:</b> Trigonometric functions are used to calculate the positions and motions of celestial bodies. The concepts of angle measurements, periodicity, and phase shifts help describe the orbits of planets, satellites, and the apparent motion of stars.</p> <p><b>Geography and Navigation:</b> Bearings, Angle of Elevation, and Angle of Depression are essential concepts used in geography and navigation. In these fields, trigonometric principles, like the Law of Sines and Law of Cosines, are applied to mapmaking, surveying, and GPS navigation.</p>	<ul style="list-style-type: none"> <li>• Students often confuse the unit circle with a simple circle, not realizing that its radius is always 1 and the coordinates on the circle represent the cosine and sine values of the corresponding angles.</li> <li>• Incorrectly assuming that trigonometric functions, like sine or cosine, have a range of all real numbers.</li> <li>• Students may incorrectly apply trigonometric identities, such as assuming <math>\sin(\theta) = \cos(\theta)</math> for all angles or misapplying the Pythagorean identity <math>\sin^2\theta + \cos^2\theta = 1</math>.</li> <li>• Overlooking the periodic nature of trigonometric functions and assuming that functions like sine, cosine, and tangent behave as if they are linear and continue to increase or decrease indefinitely.</li> <li>• Students may mix up angle measurements in degrees and radians, especially when using trigonometric functions.</li> <li>• Confusing angle of elevation and angle of depression.</li> <li>• Incorrect application of the Law of Sines and Law of Cosines.</li> </ul>
<b>Connections to Prior Units:</b>	<b>Connections to Future Units:</b>
<ul style="list-style-type: none"> <li>• Trigonometric functions (sine, cosine, tangent, etc.) can be analyzed as functions with specific domains and ranges. These functions can be graphed on the coordinate plane, providing insights into the relationship between angles and side lengths in triangles, similar to how algebraic functions are graphed and interpreted. This connection reinforces the understanding of functions, their graphs, and the properties of periodicity, amplitude, and symmetry.</li> <li>• Just as algebraic functions undergo transformations (shifts, stretches, reflections), trigonometric functions can also be transformed. For example, the graph of <math>y = \sin(x)</math> can be shifted, reflected, and stretched. These transformations are central to understanding how the periodic nature of trigonometric functions is affected by changes in the input.</li> <li>• The concept of inverse functions extends from algebra to trigonometry. Just as logarithmic functions are inverses of exponential functions, inverse trigonometric functions (such as arcsine, arccosine, and arctangent) allow for the solving of equations involving trigonometric functions. Understanding their domains and ranges is similar to understanding how logarithmic functions are used to solve exponential equations.</li> </ul>	<ul style="list-style-type: none"> <li>• Many trigonometric equations, such as <math>\sin(x) = 1/2</math> or <math>\tan(x) = 3</math>, can be solved as part of a system of equations. By applying inverse trigonometric functions, students can solve for angles and use the solutions to form systems of equations with multiple variables.</li> <li>• Trigonometry plays a significant role in polar coordinates, where equations involving trigonometric functions can describe curves or points. Students may need to solve systems of equations involving sine and cosine functions to find points of intersection or curves represented in polar form.</li> <li>• Trigonometric identities can be used to simplify and solve systems of trigonometric equations. For example, by using the sum and difference identities, students can simplify equations in terms of sine and cosine and solve systems of equations to find values of angles or unknowns.</li> <li>• Sometimes, trigonometric functions are involved in linear systems, such as solving systems of equations where one equation is trigonometric (e.g., <math>\sin(x) + 2 = 3</math>) and the other is linear or polynomial. These systems can be solved using algebraic techniques, substitution, or numerical methods.</li> <li>• Analytical trigonometry connects to real-world</li> </ul>

<ul style="list-style-type: none"> <li>Trigonometric identities, such as the Pythagorean identities, sum and difference identities, and double-angle formulas, often require algebraic manipulation for simplification and solving equations. For example, simplifying expressions involving trigonometric functions can be approached in a manner similar to simplifying polynomial or rational expressions in algebra.</li> </ul>	<p>systems, such as modeling wave motion, oscillations, or sound waves. In these cases, students may solve systems of equations involving trigonometric functions to model physical phenomena like harmonic motion or electrical circuits, where multiple trigonometric relationships interact.</p>
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**Differentiation through *Universal Design for Learning***

UDL Indicator	Teacher Actions
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<p><b>Representation</b> Connect prior knowledge to new learning (3.1)</p>	<ul style="list-style-type: none"> <li>Organize a small-group workshop where each group receives a mixed set of problems that require both factoring techniques and trigonometric manipulation (e.g., simplifying expressions like <math>\frac{\sin^2 x - \cos^2 x}{\sin x - \cos x}</math>). Begin by having them recall how they factored quadratic or rational expressions, then challenge them to apply similar techniques to the trigonometric problem. Afterward, groups share their strategies and solutions with the class, emphasizing how their prior knowledge helped them tackle new analytical trigonometry challenges.</li> <li>Present a real-world problem (such as modeling sound waves or periodic phenomena) that requires both rational functions and trigonometric identities to solve. Begin with a review of how they factored expressions and solved rational equations. Then, guide them in applying these techniques to break down the real-world problem into manageable parts. For instance, ask, "How can we factor this trigonometric expression to simplify the model?" This approach helps students see how their past learning directly informs and supports new analytical challenges.</li> <li>Have students create a short digital story or comic strip that explains a "day in the life" of a math problem. Their story should begin with a familiar process like factoring or solving a rational expression and then transition into a scenario where these techniques are used to simplify a complex trigonometric identity. Students can illustrate how the basic unit circle, sine, cosine, and tangent relationships serve as the foundation for solving higher-level analytical trigonometry problems.</li> </ul>
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**Supporting Multilingual/English Learners**

Related <i>CELP standards</i> :	Learning Targets
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<p>A MLL can . . . determine the meaning of words and phrases in oral presentations and literary and informational text. I can simplify trigonometric expressions, prove identities, and solve trigonometric equations using algebraic and analytical techniques to deepen my understanding of trigonometric relationships.</p> <ul style="list-style-type: none"> <li><b>Level 1</b> - I can recognize and point to trigonometric expressions and symbols with the help of visual aids.</li> <li><b>Level 2</b> - I can match simple trigonometric expressions and identities with their corresponding forms using word banks and pictures.</li> <li><b>Level 3</b> - I can simplify basic trigonometric expressions and solve simple equations with guided support and partial sentence frames.</li> <li><b>Level 4</b> - I can simplify trigonometric expressions, prove basic identities, and solve equations using algebraic</li> </ul>
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and analytical methods while explaining my steps in clear academic language.

- **Level 5** - I can work independently through challenging trigonometric problems—simplifying expressions, proving identities, and solving equations—to show my deep understanding of their relationships.

Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
5.1 Verifying Trigonometric Identities	I can use the fundamental trigonometric identities to verify identities.	<ul style="list-style-type: none"> <li>• I can show equivalence of expressions using trigonometric identities</li> </ul>	
5.5 Trigonometric Equations	I can solve trigonometric equations	<ul style="list-style-type: none"> <li>• I can find all solutions of a trigonometric equation.</li> <li>• I can solve equations with multiple angles.</li> <li>• I can solve trigonometric equations in linear form.</li> <li>• I can solve trigonometric equations in quadratic form.</li> <li>• I can use factoring to separate different functions in trigonometric equations.</li> <li>• I can use identities to solve equations.</li> <li>• I can use a calculator to solve trigonometric equations.</li> </ul>	

Unit Title	
Unit 6: Systems of Equations and Inequalities	
Relevant Standards: Bold indicates priority	
<p><b>HSA.CED.A.3:</b> Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context.</p> <p><b>HSA.REI.C.6:</b> Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.</p> <p><b>HSA.REI.C.7:</b> Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically.</p> <p><b>HSA.REI.D.11:</b> Explain why the x-coordinates of the points where the graphs of the equations <math>y = f(x)</math> and <math>y = g(x)</math> intersect are the solutions of the equation <math>f(x) = g(x)</math>; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations.</p> <p><b>HSA.REI.D.12:</b> Graph the solutions to a linear inequality in two variables as a half-plane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.</p> <p><b>N.VM.C.6</b> Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.</p> <p><b>N.VM.C.7</b> Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.</p> <p><b>N.VM.C.8</b> Add, subtract, and multiply matrices of appropriate dimensions.</p> <p><b>N.VM.C.9</b> Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties.</p>	
Essential Question(s)	Enduring Understanding(s)
<ul style="list-style-type: none"> <li>• How can we model real-world situations using systems of equations or inequalities?</li> <li>• How do we interpret solutions to systems of equations and inequalities in the context of a problem?</li> <li>• How do constraints affect the solutions to systems of equations or inequalities?</li> <li>• What methods can we use to solve systems of linear equations exactly (algebraically and graphically)?</li> <li>• How do the solutions to systems of linear equations relate to their graphical representations?</li> <li>• How do the solutions to a system consisting of a linear and a quadratic equation differ from those in a purely linear system?</li> <li>• How do we solve systems involving both linear and quadratic equations algebraically and graphically?</li> <li>• Why do the points of intersection of two graphs represent the solutions to the system of equations?</li> <li>• How do the solutions to systems of equations change based on the nature of the functions?</li> <li>• What is a matrix, and how does it represent data or systems of equations in a structured way?</li> <li>• How can matrices be used to solve systems of linear equations, and why is this method sometimes more efficient than traditional methods?</li> <li>• Under what conditions does a matrix have an inverse, and why is the inverse of a matrix important in solving systems of equations and other applications?</li> </ul>	<ul style="list-style-type: none"> <li>• Systems of equations and inequalities model real-world scenarios, and their solutions represent viable and nonviable options depending on the constraints of the problem.</li> <li>• Representing constraints through equations and inequalities provides insight into relationships between different variables in a given context.</li> <li>• Systems of equations can be used to predict outcomes, make decisions, and optimize processes in various fields.</li> <li>• A system of linear equations can be solved using various methods, including substitution, elimination, and graphing.</li> <li>• Solutions to systems of linear equations can be interpreted graphically as the points of intersection of the corresponding lines.</li> <li>• The process of solving systems of linear equations builds a foundation for more complex systems, including those involving nonlinear equations.</li> <li>• Solutions to linear inequalities are represented as half-planes on the coordinate plane, and the solution set of a system of inequalities is the intersection of these half-planes.</li> <li>• The boundary of the solution set in a system of inequalities is defined by the equation of the inequality, and whether the boundary is included or excluded depends on whether the inequality is strict or non-strict.</li> <li>• Graphing systems of inequalities provides a visual representation of the range of possible solutions, helping to understand the feasibility of different</li> </ul>

	options.
<b>Demonstration of Learning</b>	<b>Pacing for Unit</b>
Homework, Class Practice, Readiness Quizzes, Skills Check Quizzes, Mid-Unit Assessment, End-of-Unit Assessment	14 blocks
<b>Family Overview (link below)</b>	<b>Integration of Technology</b>
<a href="#">Precalculus ACA - Family Overview (2024-25)</a> <a href="#">Precalculus ACA - Family Overview (2024-25) SPANISH</a>	TI-84 graphing calculator Desmos calculator
<b>Unit-specific Vocabulary</b>	<b>Aligned Unit Materials, Resources, and Technology (beyond core resources)</b>
System of Equations, Solution to a System, Linear System, Linear Inequality, Substitution Method, Elimination Method, Graphical Method, Intersection, Ordered Pair, Ordered Triple, Feasible Region, Constraint, Dependent System, Independent System, Inconsistent System, Partial Solution, Graphing Linear Inequalities, Bounded Region, Unbounded Region, Dual System, Substituting into Inequalities, Critical Points, Convex Set, Basic Feasible Solution, Linear Programming, Objective Function, Slopes of Lines, Parallel Lines, Coincident Lines, Linear Transformation	TI-84 graphing calculator Desmos calculator Mini white boards Teacher created activities Vertical surfaces
<b>Opportunities for Interdisciplinary Connections</b>	<b>Anticipated misconceptions</b>
<p><b>Economics</b></p> <ul style="list-style-type: none"> <li>Optimization and Resource Allocation: Systems of equations and inequalities are commonly used in economics to model scenarios such as resource allocation, budget constraints, and supply and demand.</li> </ul> <p><b>Engineering:</b></p> <ul style="list-style-type: none"> <li>Structural Analysis and Design: Systems of equations in three variables and inequalities are often used in engineering to analyze and design structures, such as bridges, buildings, and mechanical systems. For example, equations can represent forces, moments, and equilibrium conditions, while inequalities can describe safety factors or material strength constraints.</li> </ul> <p><b>Environmental Science</b></p> <ul style="list-style-type: none"> <li>Modeling Population Growth and Resource Management: In environmental science, systems of equations and inequalities are used to model population dynamics, resource consumption, and environmental factors.</li> </ul>	<ul style="list-style-type: none"> <li>Misunderstanding the meaning of solutions- Students often think that the solution to a system of equations represents a single point on a graph, rather than the set of all points that satisfy the system.</li> <li>Believing that the solution is only where the graphs of the equations physically intersect on the graph, ignoring other possible solution sets such as parallel lines (no solutions) or coincident lines (infinitely many solutions).</li> <li>Forgetting to consider the domain and range of the inequalities, assuming all values of <math>x</math> and <math>y</math> are solutions within a system of inequalities.</li> <li>Graphing systems of inequalities by shading regions incorrectly, confusing the boundary lines (whether the inequality is strict or non-strict).</li> <li>Confusing systems of linear equations with nonlinear equations, leading to incorrect graphing or solution methods.</li> <li>Assuming that solving systems of three variables is always more complex and that it is unnecessary to check for special cases like infinitely many solutions or no solution.</li> <li>Mixing up the approach to solving systems of equations with systems of inequalities, believing that the solutions are always specific points rather than regions of possible solutions.</li> </ul>
<b>Connections to Prior Units</b>	<b>Connections to Future Units</b>
<ul style="list-style-type: none"> <li>Systems of equations in two or more variables involve algebraic manipulation to isolate variables, solve for unknowns, and simplify expressions. These processes connect directly to basic algebraic</li> </ul>	<ul style="list-style-type: none"> <li>In introductory college math, students often learn about matrices and determinants as tools for solving systems of linear equations. The concepts of row reduction, matrix multiplication, and matrix inverses</li> </ul>

<p>concepts such as substitution, elimination, and solving for unknowns.</p> <ul style="list-style-type: none"> <li>• A system of equations often represents two or more functions (e.g., linear, quadratic) and their intersections. Understanding how functions relate to each other graphically is crucial for solving these systems, whether through graphical or algebraic methods.</li> <li>• Systems of equations in two variables are often solved graphically by plotting the equations on the coordinate plane and identifying the intersection points. This graphical representation connects to visualizing functions and understanding the relationships between them.</li> <li>• Systems may involve polynomials or rational functions, especially when dealing with non-linear systems (e.g., quadratic systems or rational equations). Solving these systems can involve factoring polynomials, solving quadratic equations, or working with rational expressions.</li> </ul>	<p>are introduced as methods for solving systems efficiently, especially for larger systems.</p> <ul style="list-style-type: none"> <li>• Systems of inequalities are foundational to linear programming and optimization problems, often introduced in introductory college courses. These systems model constraints and objective functions in maximizing or minimizing quantities, such as cost or profit.</li> <li>• In introductory calculus, systems of equations often appear in optimization problems where students analyze functions to find maximum and minimum values. Systems may also be used in solving problems that involve rates of change, like related rates or optimization under constraints.</li> <li>• A matrix is a rectangular array of numbers arranged in rows and columns, representing a set of data or a system of linear equations.</li> <li>• The size or dimension of a matrix (rows <math>\times</math> columns) is a fundamental concept that affects how matrices can be manipulated and used in calculations.</li> <li>• Students should understand that matrices of the same dimensions can be added or subtracted element-wise, with each element in the result being the sum or difference of corresponding elements.</li> <li>• Matrix multiplication is not commutative, meaning the order of multiplication matters. Students should understand the conditions under which matrix multiplication is defined and how to perform it.</li> <li>• Matrices provide a powerful way to represent and solve systems of linear equations, with each system corresponding to a matrix equation.</li> <li>• Matrices can be used to model and solve problems in fields such as economics, engineering, computer graphics, and more.</li> <li>• As matrices grow in size, operations involving them can become computationally intensive. Understanding the complexity of these operations is important for practical applications.</li> <li>• While manual computation with matrices is important for learning, recognizing the role of technology in handling large and complex matrices is also essential.</li> </ul>
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**Differentiation through *Universal Design for Learning***

<b>UDL Indicator</b>	<b>Teacher Actions</b>
<p><b>Representation</b> Support decoding of text, mathematical notation, and symbols. (2.2)</p>	<ul style="list-style-type: none"> <li>• Create large posters that display a system of equations or inequalities with different components color-coded. For instance, use one color for variables, another for coefficients, and another for operation symbols. Display these in the classroom and refer to them during lessons so students can see a visual breakdown of each part of the expression.</li> <li>• In small groups, give students a complex system of equations or inequalities and have them work together to “decode” it. Ask each group to write a simplified explanation of what each symbol and term means in plain language, then share with the class.</li> </ul>

- For instance, one group might explain, “The ‘+’ between the equations means we’re combining the results to find the common solution,” and so on.
- Organize a classroom scavenger hunt where students search for different symbols and notations on handouts or on an interactive whiteboard. Have half of the posters as “need to solve” and half of the posters be error analysis challenges. Provide a checklist of skills and “look for’s.” This game reinforces familiarity with mathematical notation and strategy analysis in a fun, active way.
  - Create a matching activity where students need to match each part of the process—for example, “Start here with the given system,” “Identify the coefficients and constants,” “Decide whether to use substitution or elimination,” “set up the system,” “multiply to get coefficients that will cancel,” etc. with the parallel math step.

**Supporting Multilingual/English Learners**

**Related CELP standards: Learning Targets**

A MLL can . . . determine the meaning of words and phrases in oral presentations and literary and informational text. I can analyze systems of equations and inequalities to model real-world scenarios by representing constraints, graphing solutions as points or regions, and using methods like substitution, elimination, and graphing to predict outcomes, assess viable options, and optimize solving processes.

- **Level 1** - I can use pictures, labels, and simple diagrams to identify basic parts of equations and inequalities that show how real-world limits work.
- **Level 2** - I can recognize key words like "constraint," "solution," and "graph" and match them with examples of simple systems of equations and inequalities in everyday situations using visual aids.
- **Level 3** - I can solve basic systems of equations and inequalities using methods like substitution or graphing, with support, and explain how these systems represent simple real-world constraints and options.
- **Level 4** - I can analyze real-world problems by representing constraints as systems of equations and inequalities, and then solve them using substitution, elimination, or graphing, explaining how the solutions show viable and nonviable options.
- **Level 5** - I can independently model complex real-world scenarios by translating constraints into systems of equations and inequalities, use a variety of strategies (substitution, elimination, and graphing) to solve them, and interpret the results—whether points or regions—to predict outcomes and optimize decision-making processes.

Lesson Sequence	Learning Target	Success Criteria/ Assessment	Resources
6.1 System of equations in two variable.	I can solve a system of linear equations with 2 variables.	<ul style="list-style-type: none"> <li>• I can determine whether an ordered pair is a solution of a linear system</li> <li>• I can solve linear systems by substitution</li> <li>• I can solve linear systems by elimination</li> <li>• I can identify systems that do not have exactly one ordered pair solutions</li> <li>• Solve applied problems using a system of linear equations.</li> </ul>	
6.2 Systems of linear equations in 3 variables	I can solve a system of equations with 3 variables.	<ul style="list-style-type: none"> <li>• I can verify the solution of a system of linear equations in 3 variables.</li> <li>• I can solve a system of linear equations in 3 variables.</li> <li>• I can solve a system of linear equations using matrices.</li> </ul>	
6.3 systems of nonlinear	I can solve a nonlinear system of equations	<ul style="list-style-type: none"> <li>• I can recognize systems of nonlinear equations in 2 variables.</li> </ul>	

equations in 2 variables		<ul style="list-style-type: none"> <li>• I can solve nonlinear systems by substitution.</li> <li>• I can solve nonlinear systems by addition.</li> <li>• I can solve applied problems using a system of linear equations.</li> </ul>
6.4 System of inequalities	I can graph a system of linear inequalities	<ul style="list-style-type: none"> <li>• I can graph a system of linear inequalities in 2 variables.</li> <li>• I can graph a nonlinear inequality</li> <li>• I can graph a system of inequalities</li> </ul>
6.5 Linear programming	I can use linear programming to solve problems.	<ul style="list-style-type: none"> <li>• I can write an objective function describing a quantity that must be maximized or minimized.</li> <li>• I can use inequalities to describe limitations in a situation.</li> </ul>
6.6 Matrix Solutions to Linear Systems	I can represent a system of linear equations as a matrix, use matrix operations to find solutions, and interpret the results in the context of the system.	<ul style="list-style-type: none"> <li>• I can write the augmented matrix for a linear system.</li> <li>• I can perform matrix row operations.</li> <li>• I can use matrices and Gaussian elimination to solve systems.</li> <li>• I can use matrices and Gauss-Jordan elimination to solve systems.</li> </ul>
6.7 Matrix Operations and their Applications	I can perform matrix operations and apply them to solve mathematical and real-world problems.	<ul style="list-style-type: none"> <li>• I can use matrix notation.</li> <li>• I can explain what is meant by equal matrices.</li> <li>• I can add and subtract matrices.</li> <li>• I can perform scalar multiplication.</li> <li>• I can solve matrix equations.</li> <li>• I can multiply matrices.</li> <li>• I can model applied situations with matrix operations.</li> </ul>

## Textbook Recommendation to the Board of Education

**Subject/Course:** Precalculus

**Grade Level:** High School - Grade 11/12

**First Presentation BOE Meeting Date:** 3/5/2025

**Second Presentation BOE Meeting Date:** 4/2/2025

**Describe need for the textbook/materials:** The Precalculus Academic curriculum was last re-written in 2014 and referenced the previously approved text from 2007 (*Advanced Mathematical Modeling*, McGraw Hill). During the 2024-25 school year, the Precalculus curriculum was revised while keeping in mind the importance of mathematical modeling along with the Illustrative Math Curriculum and ensuring vertical alignment of standards. By adopting a textbook specifically designed for a Precalculus course, teachers will have better support in building off of students' prior knowledge while also preparing them for high levels of mathematics.

**Listed below are textbooks/materials evaluated by the Textbook Selection Committee:**

Subject/ Course	Title of Book	Author(s)	Edi- tion	Copyright Date	Publisher	Rubric Score Total	Readability
Precalculus	Precalculus	Miller	1	2023	McGraw Hill	139	
Precalculus	Precalculus	Larson	11	2022	Cengage	137	
Precalculus	Precalculus	Blitzer	7	2022	Pearson	173	

**The following textbook(s)/materials are recommended by the Textbook Selection Committee**

Subject/ Course	Title of Book	Author(s)	ISBN #	Edi- tion	Copyright Date	Publisher	City, State Of Publisher	Publisher Website
Precalculus	Precalculus	Blitzer		7	2022	Pearson	Upper Saddle River, NJ	<a href="https://www.pearson.com/en-us/subject-catalog/p/prec calculus/P200000006127/9780137321667">https://www.pearson.com/en-us/subject-catalog/p/prec calculus/P200000006127/9780137321667</a>

**Reasons for recommendation (include information on match to curriculum concepts and skills):**

- Real-world connections as chapter openers that are woven through units and into practice exercises
- Instructional activities for students to investigate and explore concepts
- Detailed worked examples and accompanying videos
- Built in checkpoints
- Corequisite knowledge and skill building activities
- Student online text translates into 135 languages
- Support resources for students in MyMathLab online resource
- Online homework with hints and re-dos and solutions
- App students can download to have access full textbook without needing wifi access
- Teachers can assign differentiated practice and homework

## Textbook Recommendation to the Board of Education

<b>Student Materials Needed</b>				
<b>Quantity</b>	<b>Item Name</b>	<b>Cost Per Item</b>	<b>Total Cost</b>	<b>Distribution: #Texts per School</b>
100	Student edition + 6-year access to MyMathLab	\$238.47	\$23,847.00	BCHS: 50 BEHS: 50

<b>Teacher Materials Needed</b>				
<b>Quantity</b>	<b>Item Name</b>	<b>Cost Per Item</b>	<b>Total Cost</b>	<b>Distribution: # per School</b>
6	Annotated Instructor's Edition for Precalculus	\$148.47	\$890.82	BCHS: 3 BEHS: 3

<b>TOTAL COST</b>	
Total Cost for Student Texts/Materials	\$23,847.00
Total Cost for Teacher Materials	\$890.82
Total Cost for Shipping	\$1979.03
<b>GRAND TOTAL</b>	<b>\$26,716.86</b>

<b>Textbook Selection Committee</b>		
<b>Staff member</b>	<b>School</b>	<b>Grade/Course Taught</b>
Nicole Beauchamp	Bristol Central High School	Secondary Math Coach
Olivia Levesque	Bristol Eastern High School	Secondary Math Coach
Tara Crouch	Bristol Central High School	Math Department Chair
Logan Bourke	Bristol Eastern High School	Math Department Chair
Benjamin Oksanen	Bristol Central High School	Precalculus Teacher
Colin Brunetti	Bristol Central High School	Precalculus Teacher
Tyler Roberts	Bristol Eastern High School	Precalculus Teacher