

# Bethel Board of Education Regular Meeting

Thursday, April 25, 2024 7:00 PM

Board of Education Conference Room E, Live Stream:

<http://devos2.bethel.k12.ct.us/show?video=763ff4de0370> , Via Phone

conferencing during public comments - 203-794-8620. Materials can be viewed at: <https://meetings.boardbook.org/Public/Organization/2425> The opportunity for members of the public wishing to make comments can attend and comment in-person or may send public comments to the Board via email or letter and it will be included as part of the record of the meeting., 1 School Street, PO Box 253, Bethel, CT 06801

|   |  |
|---|--|
| 1. <b>Call to Order</b>   | <b>Speaker(s):</b> Policy<br>9326      |
| 1.A. Roll Call for Quorum   |  |
| 1.B. Pledge of Allegiance   |  |
| 2. <b>Board Recognition/A Salute to Excellence</b>  | <b>Speaker(s):</b> Christine<br>Carver |
| 2.A. <b>2023 Bonnie B. Carney Award of Excellence</b>   | <b>Speaker(s):</b> Christine<br>Carver |
| 2.B. Gifts, Grants, & Bequests  |  |
| 3. <b>Consent Calendar</b>  | <b>Speaker(s):</b> Christine<br>Carver |
| 3.A. Approval of Minutes  |  |
| 3.A.1. March 18, 2024 - Special Meeting   |  |
| 4. <b>Correspondence</b>  | <b>Speaker(s):</b> Policy<br>9326      |
| 5. <b>Public Comment</b><br>(Please note: The Board welcomes Public Comment and asks that speakers please limit their comments to 2 minutes. Speakers may offer objective comments of school operations and programs that concern them. The Board will not permit any expression of personal complaints or defamatory comments about Board of Education personnel and students, nor against any person connected with the Bethel Public School System.) | <b>Speaker(s):</b> Policy<br>9326      |
| 6. <b>Administrative/Board Member Update</b>  | <b>Speaker(s):</b> Policy<br>9326      |
| 6.A. Board Chairperson Update   |  |
| 6.B. Administrative Update  | <b>Speaker(s):</b> Christine<br>Carver |
| 6.B.1. 2023-2024 BOE District Data Sheet  |  |
| 7. <b>Reports to the Board</b>  |  |
| 7.A. <b>Curriculum, Assessment, &amp; Professional Practices</b>  |  |
| 7.A.1. Precalculus Textbook   |  |
| 7.A.2. Algebra II Curriculum  |  |
| 7.A.3. Science Curriculum:<br>1. Environmental Science Curriculum   |  |

2. Forensics Curriculum

3. Physical Science Curriculum

7.A.4. AP Environmental Textbook

7.A.5. Korean Collaborative Program

**8. Action Items**

8.A. Class of 2024 Graduation Date

**9. Recommended Executive Session**

9.A. CT General Statutes 1-210(b)(2) Personnel - Non-Renewals

**10. Adjourn**

Minutes of the Bethel Board of Education Special Meeting held on Monday, March 18, 2024, in Board of Education Conference Room E, 1 School Street, PO Box 253, Bethel, CT 06801 and via live stream.

Attendance: None.

Administrative Attendance: C. Carver, K. Brooks, J. Variale, C. Sipala, M. Stabile, M. Rutledge, C. Troetti

J. Ackerman, Vice Chair, called the meeting to order at 7:00 PM.

**Board Members Attendance:**

|                         |               |
|-------------------------|---------------|
| Mrs. Jennifer Ackerman: | Present       |
| Mr. Scott Clayton:      | <i>Absent</i> |
| Mrs. Kara DiBartolo:    | Present       |
| Mr. Bill Foster:        | Present       |
| Mrs. Jen Larsen:        | Present       |
| Mrs. Jennifer Lewis:    | Present       |
| Mrs. Courtney Martin:   | Present       |
| Mr. Daniel Nostin:      | <i>Absent</i> |
| Ms. Pat Rist:           | <i>Absent</i> |

**1. Call to Order**

- 1.A. Roll Call for Quorum
- 1.B. Pledge of Allegiance

**2. Van Proposal Plan**

Ms. Variale and Dr. Sipala reviewed the proposal with the Board. This van would support our driver shortages, and new special education requirements, and provide increased field trip opportunities for the alternative program. Dr. Carver and Mr. Troetti noted the van could also be used for athletics and extracurricular programs, such as Jazz Band. Ms. Variale reviewed the cost analysis, maintenance costs, licensing endorsement requirements, and savings.

**Move to approve the proposal and purchase of the van. Passed with a motion by Mrs. Jen Larsen and a second by Mrs. Jennifer Ackerman.**

|                         |     |
|-------------------------|-----|
| Mrs. Jennifer Ackerman: | Yea |
| Mrs. Kara DiBartolo:    | Yea |
| Mr. Bill Foster:        | Yea |
| Mrs. Jen Larsen:        | Yea |
| Mrs. Jennifer Lewis:    | Yea |
| Mrs. Courtney Martin:   | Yea |

### 3. Board Recognition/A Salute to Excellence

- Congratulations to Christine Manalo, winner of the Heart of the Arts Award for her work in Unified Music. [A video honoring Christine Manalo and our Unified Music program.](#)
- Congratulations to the IceCats win last week, advancing them to the state finals.

#### Artists on the Rise Show

The following BHS students had artwork featured in the annual Brookfield Craft Center Artists on the Rise Show on March 9th.

Maggie Atkins  
Caitlin Baldwin  
Julia Bender  
Greta Betz  
Mikayla Caprio  
Madelyn DeGennaro  
Clare Famularo  
Ashlyn Germinaro  
Sophia Goncalves  
Marcus Graham  
Aalyssa Loverso

Victoria Mastracchio  
Mia Narvaez  
Jordan Oberle-In  
Rhiannon Ouellette  
Ava Real  
Lucano Rinaldi  
Azelia Rodriguez  
Paige Steele  
Sienna Troetti  
Sophia Trzyna  
Emzie Zalaznick

#### **2024 Teacher, Rookie, Pillar of the Year, CHAMP, and Friends of Bethel Award Winners**

Each year our schools award a Teacher of the Year, Rookie of the Year, and Pillar of the Year. They will be honored in a Spring Reception. [Save the Date, Thursday, May 23, 2024](#)

##### **Bethel High School**

Michelle Leary - Teacher of the Year  
Jonathan DosSantos - Rookie of the Year  
Maura Dundie - Pillar of the Year

##### **Bethel Middle School**

Nate Rinas - Teacher of the Year  
Brianna Lutz - Rookie of the Year  
Denise Sullivan - Pillar of the Year

##### **Johnson School**

Margaret Genuario - Teacher of the Year  
Sanya Kayfus - Rookie of the Year  
Joe Melo - Pillar of the Year

##### **Rockwell School**

Keri Luchsinger - Teacher of the Year  
Jake Craybas - Rookie of the Year  
Janet Murray - Pillar of the Year

##### **Berry School**

Mandy Esposito - Teacher of the Year  
Fran Demers - Rookie of the Year  
Michele Russo - Pillar of the Year

##### **Districtwide**

Kylie D'Arcangelo - Pillar of the Year  
Rebecca Chamberlain - CHAMP Award  
Dan Carter - Friends of Bethel Award

### **3.A. CABE Board Member Appreciation Month**

The Month of March is Connecticut Board of Education Appreciation Month. Dr. Carver on behalf of the BPS community thanked the Board for the time and effort they devote to board

business.

### **3.B. Gifts, Grants, & Bequests**

#### **GIFTS**

##### **Bethel High School**

- Window decorations for the back main entrance of the school, \$3,600, Bethel All Sports Booster Club

#### **GRANTS**

- 2024 grants to educators, \$19,925, Bethel Education Foundation
- 2024 Excellence in Education Award classroom grants, Total grant amount: \$1,000 - \$500 per educator, to be determined by Excellence in Education Award recipients:  
Jake Craybas - Rockwell School  
Debbie Tierney - Middle School

### **4. Consent Calendar**

#### **4.A. Approval of Minutes**

##### **4.A.1. February 22, 2024 - Special Meeting**

**Move to approve the minutes of February 22, 2024 - Special Meeting. Passed with a motion by Mrs. Jen Larsen and a second by Mrs. Courtney Martin.**

|                         |     |
|-------------------------|-----|
| Mrs. Jennifer Ackerman: | Yea |
| Mrs. Kara DiBartolo:    | Yea |
| Mr. Bill Foster:        | Yea |
| Mrs. Jen Larsen:        | Yea |
| Mrs. Jennifer Lewis:    | Yea |
| Mrs. Courtney Martin:   | Yea |

##### **4.A.2. February 22, 2024 - Regular Meeting**

**Move to approve the minutes of February 22, 2024 - Regular Meeting. Passed with a motion by Mr. Bill Foster and a second by Mrs. Kara DiBartolo.**

|                         |         |
|-------------------------|---------|
| Mrs. Jennifer Ackerman: | Abstain |
| Mrs. Kara DiBartolo:    | Yea     |
| Mr. Bill Foster:        | Yea     |
| Mrs. Jen Larsen:        | Yea     |
| Mrs. Jennifer Lewis:    | Yea     |
| Mrs. Courtney Martin:   | Yea     |

## 5. Correspondence

- Dr. Carver's written testimony in opposition of Raised Bill 153: AN ACT IMPLEMENTING THE RECOMMENDATIONS OF THE CAREER TECHNICAL SYSTEM
- Dr. Carver's written testimony regarding Senate Bill 5: An Act Concerning School Resources, House Bill 5416: An Act Concerning Various Education Statutes, and Senate Bill 363: An Act Concerning Assorted Revisions to the Education Statutes.
- Dr. Carver's written testimony regarding Raised Bill 381: Raised Bill 381: An Act Concerning the Teaching Profession and Revisions to the Mandated Reporting Requirements.
- Dr. Carver's written testimony regarding House Bill 5463: An Act Concerning Educator Certification.
- Dr. Carver also agreed to work with CPRL, Jan Perruccio (Old Saybrook) and Cynthia Richie (New London) to write this opinion piece in support of the legislative changes to certification. It was submitted to media outlets and sent to Bethel's delegation.
- Email - FW: Student Privacy Rights in Jeopardy - S.B. 380 -- A Message From: Scott Nicol

## 6. Public Comment

None.

## 7. Administrative/Board Member Update

### 7.A. Board Chairperson Update

Board Member, Mrs. Lewis informed the Board she would be moving out of town and therefore she will be resigning from the Board.

### 7.B. Administrative Update

Dr. Carver informed the Board:

- The administration will be looking for an Interim Director of Special Education for when Dr. Sipala is on leave.
- March 19th Tuesday - Public Hearing on the Budget - BHS Auditorium @ 7:00 PM babysitting will be provided.
- April 4th - Town Meeting - BHS Auditorium @ 7:00 PM babysitting will be provided.
- Parent-Teacher Conferences are next week.
- Supt. Evaluation Meeting Dates
  - June 13, 2024 - BOE Special Meeting, Executive Session - Supt. Eval. Part I, 5:30-7:30 PM
  - June 20, 2024 - BOE Special Meeting, Executive Session - Supt. Eval. Part II, 5:30-

7:30 PM

- We hosted Science of Reading Learning Walks with our State partners and colleagues from New Milford last Wednesday. We started to analyze some of the data collected in the process of implementing our K-5 programs.
- Last Friday, the Admin Council and our broader leadership team conducted Instructional Rounds at Johnson School, with a focus on our district Theory of Action, intellectual engagement. We have now done Rounds in all five schools.
- Last Tuesday, Dr. Carver attended the Superintendent Network. The theme related to instructional improvement is around innovation.

As we begin to wind down the school year, there are so many great events that highlight the accomplishments and talents of our students. A few highlights that are not worth missing (flyers below) include:

- Anything Goes, Bethel High School, Performances March 15th - March 17th.
- Winter Guard Friends and Family Event, Friday, March 22nd at 5:30-8:30 PM, Bethel High School Gym
- The Military Ball, Friday, March 29th, Aqua Turf (BHS Cadets & Invited Guests)
- Bethel Education Family Board Game Night, Wednesday, April 3, 6-8 PM, Bethel High School
- STEAM Fair, Wednesday, April 24th, 6-8 PM, Bethel High School

#### **7.B.1. 2023-2024 BOE District Data Sheet**

Dr. Carver provided the 2023-2024 BOE District Data Sheet to the Board.

#### **8. Reports to the Board**

##### **8.A. Curriculum, Assessment, & Professional Practices**

##### **8.A.1. K-5 Math Curriculum**

**Motion to approve the K-5 math curriculum. Passed with a motion by Mrs. Jennifer Ackerman and a second by Mrs. Jennifer Lewis.**

Mrs. Jennifer Ackerman: Yea

Mrs. Kara DiBartolo: Yea

Mr. Bill Foster: Yea

Mrs. Jen Larsen: Yea

Mrs. Jennifer Lewis: Yea

Mrs. Courtney Martin: Yea

### **8.A.2. Spanish for Heritage Speakers Course & Curriculum**

**Motion to approve the Spanish for Heritage Speakers course and curriculum. Passed with a motion by Mrs. Jennifer Ackerman and a second by Mrs. Courtney Martin.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea  
Mr. Bill Foster: Yea  
Mrs. Jen Larsen: Yea  
Mrs. Jennifer Lewis: Yea  
Mrs. Courtney Martin: Yea

### **8.A.3. Leadership Course**

**Motion to approve the School Leadership course. Passed with a motion by Mrs. Jennifer Ackerman and a second by Mrs. Kara DiBartolo.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea  
Mr. Bill Foster: Yea  
Mrs. Jen Larsen: Yea  
Mrs. Jennifer Lewis: Yea  
Mrs. Courtney Martin: Yea

### **8.B. Policy**

#### **8.B.1. Regulation 4111.3 -Educator Diversity Plan**

**Move to approve Regulation 4111.3 -Educator Diversity Plan. Passed with a motion by Mrs. Jennifer Ackerman and a second by Mrs. Jennifer Lewis.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea  
Mr. Bill Foster: Yea  
Mrs. Jen Larsen: Yea  
Mrs. Jennifer Lewis: Yea  
Mrs. Courtney Martin: Yea

#### **8.B.2. First Reading**

**8.B.2.a. Policy 4112.8/4212.8 - Nepotism: Employment of Relatives**

**8.B.2.b. Policy 4113 - Assignment of Professional Personnel**

**8.B.2.c. Regulation 4114 - Transfer/Reassignment**

**8.B.2.d. Bylaw 9270 - Conflict of Interest**

**Move to accept for a first reading:**

**Policy 4112.8/4212.8 - Nepotism: Employment of Relatives**

**Policy 4113 - Assignment of Professional Personnel**

**Regulation 4114 - Transfer/Reassignment**

**Bylaw 9270 - Conflict of Interest**

**Passed with a motion by Mrs. Kara DiBartolo and a second by Mrs. Courtney Martin.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea  
Mr. Bill Foster: Yea  
Mrs. Jen Larsen: Yea  
Mrs. Jennifer Lewis: Yea  
Mrs. Courtney Martin: Yea

**8.B.3. Second Reading/Approval**

**8.B.3.a. Policy 4112.51 - Employment & Student-Teacher Checks**

**8.B.3.b. Policy 4121 - Substitute Teachers**

**8.B.3.c. Policy & Regulation 3542.43 - Food Service Charging**

**8.B.3.d. Policy & Regulation 5112.4 - Disenrollment**

**8.B.3.e. Policy 6159 - Individualized Education Program/Special Education Program**

**8.B.3.f. Policy 5141.21 Administration of Medication**

**8.B.3.g. Bylaw 9323 - Construction of the Agenda**

**Move to approve:**

**Policy 4112.51 - Employment & Student-Teacher Checks**

**Policy 4121 - Substitute Teachers**

**Policy & Regulation 3542.43 - Food Service Charging**

**Policy & Regulation 5112.4 - Disenrollment**

**Policy 6159 - Individualized Education Program/Special Education Program**

**Policy 5141.21 - Administration of Medication**

**Bylaw 9323 - Construction of the Agenda**

**Passed with a motion by Mrs. Kara DiBartolo and a second by Mrs. Courtney Martin.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea  
Mr. Bill Foster: Yea  
Mrs. Jen Larsen: Yea  
Mrs. Jennifer Lewis: Yea  
Mrs. Courtney Martin: Yea

**8.C. Resource Management & Business Operations**

**8.C.1. Personnel**

**8.C.1.a. Job Description - 2.08 - Special Education Transition Specialist**

**Move to approve Job Description - 2.08 - Special Education Transition Specialist. Passed with a motion by Mr. Bill Foster and a second by Mrs. Jennifer Ackerman.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea

|                       |     |
|-----------------------|-----|
| Mr. Bill Foster:      | Yea |
| Mrs. Jen Larsen:      | Yea |
| Mrs. Jennifer Lewis:  | Yea |
| Mrs. Courtney Martin: | Yea |

#### **8.C.1.b. Job Description - New - Substitute Teacher**

**Move to approve Job Description -- Substitute Teacher. Passed with a motion by Mr. Bill Foster and a second by Mrs. Courtney Martin.**

|                         |     |
|-------------------------|-----|
| Mrs. Jennifer Ackerman: | Yea |
| Mrs. Kara DiBartolo:    | Yea |
| Mr. Bill Foster:        | Yea |
| Mrs. Jen Larsen:        | Yea |
| Mrs. Jennifer Lewis:    | Yea |
| Mrs. Courtney Martin:   | Yea |

#### **8.C.2. Finance**

##### **8.C.2.a. Quarterly Spending Report 2023-2024**

J. Variale reviewed the quarterly spending report with the Board.

##### **8.C.2.b. Budget Transfers**

J. Variale reviewed the budget transfers with the Board.

**Move to the Board for approval of the budget transfers as presented. Passed with a motion by Mr. Bill Foster and a second by Mrs. Jen Larsen.**

|                         |     |
|-------------------------|-----|
| Mrs. Jennifer Ackerman: | Yea |
| Mrs. Kara DiBartolo:    | Yea |
| Mr. Bill Foster:        | Yea |
| Mrs. Jen Larsen:        | Yea |
| Mrs. Jennifer Lewis:    | Yea |
| Mrs. Courtney Martin:   | Yea |

#### **9. Recommended Executive Session**

**Administrative Attendance: C. Carver, K. Brooks, J. Variale, C. Troetti**

##### **Board Members Attendance:**

|                                |                |
|--------------------------------|----------------|
| <b>Mrs. Jennifer Ackerman:</b> | <b>Present</b> |
| <b>Mr. Scott Clayton:</b>      | <i>Absent</i>  |
| <b>Mrs. Kara DiBartolo:</b>    | <b>Present</b> |
| <b>Mr. Bill Foster:</b>        | <b>Present</b> |

Mrs. Jen Larsen: Present  
Mrs. Jennifer Lewis: Present  
Mrs. Courtney Martin: Present  
Mr. Daniel Nostin: Absent  
Ms. Pat Rist: Absent

**Move to enter into Executive Session at 7:46 PM. Passed with a motion by Mrs. Courtney Martin and a second by Mrs. Kara DiBartolo.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea  
Mr. Bill Foster: Yea  
Mrs. Jen Larsen: Yea  
Mrs. Jennifer Lewis: Yea  
Mrs. Courtney Martin: Yea

#### **9.A. CT General Statues 1-210(b)(9) Negotiations - BEA Negotiations**

**Move to come out of Executive Session at 7:52 PM. Passed with a motion by Mrs. Jen Larsen and a second by Mrs. Courtney Martin.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea  
Mr. Bill Foster: Yea  
Mrs. Jen Larsen: Yea  
Mrs. Jennifer Lewis: Yea  
Mrs. Courtney Martin: Yea

**Move to approve the MOU between the Bethel Education Association and the Board of Education. Passed with a motion by Mrs. Jen Larsen and a second by Mrs. Kara DiBartolo.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea  
Mr. Bill Foster: Yea  
Mrs. Jen Larsen: Yea  
Mrs. Jennifer Lewis: Yea  
Mrs. Courtney Martin: Yea

#### **10. Adjourn**

**Move to adjourn at 7:53 PM. Passed with a motion by Mrs. Courtney Martin and a second by Mr. Bill Foster.**

Mrs. Jennifer Ackerman: Yea  
Mrs. Kara DiBartolo: Yea  
Mr. Bill Foster: Yea  
Mrs. Jen Larsen: Yea

|                       |     |
|-----------------------|-----|
| Mrs. Jennifer Lewis:  | Yea |
| Mrs. Courtney Martin: | Yea |

Respectfully submitted,



Susan Pare  
Board Recorder



# BOARD OF SELECTMEN

**Clifford J. Hurgin Municipal Center, 1 School Street  
Bethel, Connecticut 06801 Telephone: (203) 794-8501**

*Daniel E. Carter, First Selectman*

*Bryan Terzian, Selectman*

*Richard C. Straiton, Selectman*

April 4, 2024

Anthony J. Cassio  
43 Linda Lane  
Bethel, CT 06801

Anthony Cassio,

Please be advised that at the Board of Selectmen meeting on April 2, 2024, you were appointed to the Board of Education. The seat was left vacant by the resignation of Jenn Lewis. The term will expire on 12/1/2025.

If you have not already done so, please stop by at your earliest convenience to the Town Clerk's Office to be sworn in as a member, 203.794.8505.

Thank you for your willingness to serve the Town of Bethel in this capacity.

Very truly yours,

Daniel E. Carter, First Selectman

Cc: Lisa Bergh, Town Clerk



DEPARTMENT OF ADMINISTRATIVE SERVICES

Internal Audit Division

Brian Green, Director of Internal Audit

(860) 713-5509 or [Brian.Green@ct.gov](mailto:Brian.Green@ct.gov)

April 18, 2024

Superintendent Carver  
Superintendent of Schools  
Bethel School District  
1 School St  
Bethel CT, 06801

Page |  
1

**Re: On site Audit – Bethel School District**

- **[Anna H. Rockwell School- School Construction Project #18DASYC0080058RNV]**

Dear Superintendent Carver :

The Department of Administrative Services (DAS) Internal Audit Department/School Construction is conducting an on-site audit of the above-referenced school construction project. We have attached a copy of the most recent "School Construction Status Report" for this project.

While all project records shall be maintained until the required statutory audit has been completed, the following summarizes the major records and documentation that shall be needed for the audit of a school building project. The items noted on this list include, but are not limited to, the entirety of records and documentation that may be required for audit purposes. **The documentation below should encompass the project period:**

1. General ledger, project ledger, or other subsidiary ledgers of project costs.
2. Cash Disbursement Journals, payment vouchers, paid invoices, contracts, and other documents related to the project.
3. Detailed schedule of project costs with associated vendor names as reported to the DAS. This should reconcile to #1 above (general ledger, project ledger, or other subsidiary ledgers of project costs).
4. Audited Financial Statements.
5. Building Committee Minutes.
6. Documentation of "Other Funding" and refunds associated with the project.
7. Documentation of site or facility acquisition costs (if applicable), including closing statements and land and/or building appraisals, Real Estate Contracts, and /or Purchase Agreements.



## DEPARTMENT OF ADMINISTRATIVE SERVICES

Internal Audit Division

Brian Green, Director of Internal Audit

(860) 713-5509 or [Brian.Green@ct.gov](mailto:Brian.Green@ct.gov)

8. Documentation supporting project costs, including:
  - 8.a Construction contract with bid specifications
  - 8.b Evidence of public bidding (newspaper invoices or ads)
  - 8.c Bidding summaries (bid tabulation) for all contracts
  - 8.d Original bid documents for any purchase of \$10,000 or more
  - 8.e State contract utilized with state contract number
  - 8.f All change orders (including final Office of School Construction (OSC) eligibility determination letters)
  - 8.g All addenda
  - 8.h Contractor's Applications for Payment (Contractor Invoices)
  - 8.i Subcontractor invoices (for projects with a Construction Manager)
9. Projected enrollment data which supports the highest eight-year projected student enrollment figure submitted to the Department.
10. Documentation to support "gross floor area," such as blueprints or architectural drawings.
11. Existing and new floor area.
12. Project Drawings and Specifications with an original date stamp from the Office of School Construction & Review sign-off meeting.
13. Schedules identifying any ineligible or limited eligible items as reported on FORM SCG-4000 Ineligible Costs and Limited Eligible Costs Worksheet (ICW).
14. Official offering statements for all bond issues, if applicable.
15. Supporting documentation for all derived or prorated amounts.
16. Correspondence files.
17. Documentation of any lawsuits, arbitration, or mediation between Local Education Agencies (LEAs) and contractors. Expense reconciliation between original contracts and settlements should also be available.



DEPARTMENT OF ADMINISTRATIVE SERVICES

Internal Audit Division

Brian Green, Director of Internal Audit

(860) 713-5509 or [Brian.Green@ct.gov](mailto:Brian.Green@ct.gov)

Please note that it is not necessary to make copies of the above documentation, but that such documentation should be readily available for our on-site audit of the above referenced school building project. Also, additional information may be requested, if necessary, during the audit.

We request that your representative in this matter contact Frederick Bruce of this office by **April 25, 2024** to coordinate and schedule this on-site interview. If you have any questions, please contact Frederick Bruce at 860-893-3006 or email [DAS.SchoolConstructionAudit@ct.gov](mailto:DAS.SchoolConstructionAudit@ct.gov).

Your cooperation is greatly appreciated. Should you have any concerns and/or questions please feel free to contact this office at the above email.

Sincerely,

Brian Green  
Director of Internal Audit  
Department of Administrative Services  
Internal Audit Division

Copy Furnished: Brian Green, Director of Internal Audit ([brian.green@ct.gov](mailto:brian.green@ct.gov))  
Jim Murray, CHRO Representative ([CHRO.AwardNotification@ct.gov](mailto:CHRO.AwardNotification@ct.gov))



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Internal Audit Division

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April 18, 2024

Superintendent Carver  
Superintendent of Schools  
Bethel School District  
1 School St  
Bethel CT, 06801

Page |  
1

**Re: On site Audit – Bethel School District**

- **[Ralph M.T Johnson School- School Construction Project #18DASYC0080059RN]**

Dear Superintendent Carver :

The Department of Administrative Services (DAS) Internal Audit Department/School Construction is conducting an on-site audit of the above-referenced school construction project. We have attached a copy of the most recent "School Construction Status Report" for this project.

While all project records shall be maintained until the required statutory audit has been completed, the following summarizes the major records and documentation that shall be needed for the audit of a school building project. The items noted on this list include, but are not limited to, the entirety of records and documentation that may be required for audit purposes. **The documentation below should encompass the project period:**

1. General ledger, project ledger, or other subsidiary ledgers of project costs.
2. Cash Disbursement Journals, payment vouchers, paid invoices, contracts, and other documents related to the project.
3. Detailed schedule of project costs with associated vendor names as reported to the DAS. This should reconcile to #1 above (general ledger, project ledger, or other subsidiary ledgers of project costs).
4. Audited Financial Statements.
5. Building Committee Minutes.
6. Documentation of "Other Funding" and refunds associated with the project.
7. Documentation of site or facility acquisition costs (if applicable), including closing statements and land and/or building appraisals, Real Estate Contracts, and /or Purchase Agreements.



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8. Documentation supporting project costs, including:
  - 8.a Construction contract with bid specifications
  - 8.b Evidence of public bidding (newspaper invoices or ads)
  - 8.c Bidding summaries (bid tabulation) for all contracts
  - 8.d Original bid documents for any purchase of \$10,000 or more
  - 8.e State contract utilized with state contract number
  - 8.f All change orders (including final Office of School Construction (OSC) eligibility determination letters)
  - 8.g All addenda
  - 8.h Contractor's Applications for Payment (Contractor Invoices)
  - 8.i Subcontractor invoices (for projects with a Construction Manager)
9. Projected enrollment data which supports the highest eight-year projected student enrollment figure submitted to the Department.
10. Documentation to support "gross floor area," such as blueprints or architectural drawings.
11. Existing and new floor area.
12. Project Drawings and Specifications with an original date stamp from the Office of School Construction & Review sign-off meeting.
13. Schedules identifying any ineligible or limited eligible items as reported on FORM SCG-4000 Ineligible Costs and Limited Eligible Costs Worksheet (ICW).
14. Official offering statements for all bond issues, if applicable.
15. Supporting documentation for all derived or prorated amounts.
16. Correspondence files.
17. Documentation of any lawsuits, arbitration, or mediation between Local Education Agencies (LEAs) and contractors. Expense reconciliation between original contracts and settlements should also be available.



DEPARTMENT OF ADMINISTRATIVE SERVICES

Internal Audit Division

Brian Green, Director of Internal Audit

(860) 713-5509 or [Brian.Green@ct.gov](mailto:Brian.Green@ct.gov)

Please note that it is not necessary to make copies of the above documentation, but that such documentation should be readily available for our on-site audit of the above referenced school building project. Also, additional information may be requested, if necessary, during the audit.

We request that your representative in this matter contact Frederick Bruce of this office by **April 25, 2024** to coordinate and schedule this on-site interview. If you have any questions, please contact Frederick Bruce at 860-893-3006 or email [DAS.SchoolConstructionAudit@ct.gov](mailto:DAS.SchoolConstructionAudit@ct.gov).

Page |  
3

Your cooperation is greatly appreciated. Should you have any concerns and/or questions please feel free to contact this office at the above email.

Sincerely,

Brian Green  
Director of Internal Audit  
Department of Administrative Services  
Internal Audit Division

Copy Furnished: Brian Green, Director of Internal Audit ([brian.green@ct.gov](mailto:brian.green@ct.gov))  
Jim Murray, CHRO Representative ([CHRO.AwardNotification@ct.gov](mailto:CHRO.AwardNotification@ct.gov))

## TO ALL ELECTED AND APPOINTED BOARDS AND COMMISSIONS

### FOI Meeting Policy

While a meeting is in session, the following protocols should be followed:

1. Personal devices should not be used to communicate through any means including text message, email, instant message, social media post, or conversation. An exception will be made if the device is being used as part of the meeting session i.e. a member is participating in the meeting via phone conference.

If there is a need to communicate regarding personal business during the meeting, the member should excuse himself/herself from the meeting and exit the meeting room, or request the chair to move for a meeting recess.

2. Any conversations by members or questions should be addressed to and through the chair. Talking, asking another member a question, or whispering any comments to another member should not take place.

At public meetings, the public generally expects that the business being conducted **is public business**. Pursuant to the Freedom of Information Act (Conn. Gen. Stat. § 1-200 *et seq.*), as amended (“FOI Act”), the public has a right to know what public officials say at public meetings on topics related to the public’s business, unless such statements are made during a proper executive session or are otherwise exempt from disclosure under the FOI Act.

Failure to adhere to the business of the meeting and/or the aforementioned protocols could subject public officials to a FOI request, requiring the disclosure of information that may be sensitive or inappropriate for public knowledge. In addition, a subsequent proceeding could be commenced with the FOI Commission, which may result in a significant expenditure of time and resources, a fine, board or commission actions being set aside, etc.

Thank you and please keep the above in mind at all times while you are participating in a board or commission meeting.

Daniel E. Carter  
First Selectman

To: Bethel Board of Education

From: Scott Clayton-Board Chair

Date: April 1, 2024

Re: Updated Committee Assignments

CC: Dr. Christine Carver-Superintendent  
Sue Pare- Executive Assistant to the Superintendent

**Policy**

**Chair:** Dan Nostin

**Vice Chair:** Kara DiBartolo

Bill Foster

Jen Larsen

Alternate: Pat Rist

**Curriculum, Assessment, and Professional Practices**

**Chair:** Jennifer Ackerman

**Vice Chair:** Jen Larsen

Courtney Martin

Kara DiBartolo

Alternate: Anthony Cassio

**Resource Management and Business Operations**

**Chair:** Bill Foster

**Vice Chair:** Dan Nostin

Anthony Cassio

Pat Rist

Alternate: Courtney Martin

**Community Outreach, Alignment, and Communication**

**Chair:** Courtney Martin

**Vice Chair:** Jen Ackerman

Pat Rist

Anthony Cassio

Alternate: Jen Larsen

Bethel Public Schools  
Invites You to the New Spring Casual  
**2024 Awards Celebration**  
**IT'S TIME TO CELEBRATE**

TEACHERS OF THE YEAR  
ROOKIE TEACHERS OF THE YEAR  
PILLARS OF THE YEAR  
FRIENDS OF BETHEL AWARD  
CHAMP AWARD  
EDUCATIONAL SERVICE AWARDS  
RETIREES

CREATIVITY, INNOVATION, & EXCELLENCE IN EDUCATION  
JANICE JORDAN EXCELLENCE IN EDUCATION AWARD

**THURSDAY, MAY 23, 2024**

**4:00 - 6:00 P.M.**

**HEAVY HORS D'OEUVRES  
BEVERAGES FOR PURCHASE  
(COFFEE & SODA INCLUDED)**

THE AMBER ROOM COLONNADE  
OUTDOOR COVERED PATIO  
ROUTE 37 (STACEY ROAD), DANBURY, CT

**RSVP by May 10th**

**\$55 per Person - Online Payments Only**

**[www.myschoolbucks.com](http://www.myschoolbucks.com)**

(Under "School Store", "Categories", Choose "Staff Events")



**2024 Awards Celebration** in celebration of achievement for the following:

**Pillar of Bethel Award:**

Bethel High School – Maura Dundie, Secretary to Associate Principal

Bethel Middle School – Denise Sullivan, Academic Support Tutor

Ralph M.T. Johnson School - Joe Melo, School Counselor

Frank A. Berry School – Michele Russo, Secretary to the Principal

Anna H. Rockwell School – Janet Murray, Paraeducator

Bethel Public Schools – Kylie D'Arcangelo, Administrative Assistant to the Director of Special Education & Pupil Services

**Rookie Teachers of the Year:**

Bethel High School – Jonathan DosSantos, Mathematics Teacher

Bethel Middle School – Brianna Lutz, Social Studies Teacher

Ralph M.T. Johnson School - Sanya Kayfus, Grade 5 Teacher

Frank A. Berry School – Fran Demers, Elementary Teacher

Anna H. Rockwell School – Jake Craybas, Special Education Teacher

**Teacher of the Year:**

Bethel High School – Michele Leary, Science Teacher

Bethel Middle School – Nate Rinas, Physical Education Teacher

Ralph M.T. Johnson School - Margaret Genuario, Music Teacher

Frank A. Berry School - Mandy Esposito, Elementary Teacher

Anna H. Rockwell School – Keri Luchsinger, Elementary Teacher

**Friends of Bethel Award**

Dan Carter, First Selectman, Town of Bethel

**CHAMP Award**

Rebecca Chamberlain, BPS Parent/PTO

**Educational Service Awards**

**10 Years of Service**

Melissa Anderson, Annie Brudvig, Mary Caravetta, Christine Carver, Noelle Chiafari, Julie Danner, Maura Dundie, Pnina Flynn, Kathleen Germinaro, Alexander Grennan, Beth Grieco, Leslie Kaye, Danielle Legnard, Robert Mcevoy, Jose Melo, Laura Montero, Michele Russo, Rebecca Tate, Linda Westlake

**20 Years of Service**

Jessica Bouchard, Mark Doolan, Catherine Emerick, Anthony Fernandes, Cindy Feuerman, Danielle Greto, Reine Issa, Stacie H Kaye, Michael Krupnikoff, Keri Luchsinger, Jeff Moscovitz, Doris Murphy-Mortimer, Suzanne Nuzzo, Elizabeth O'Keeffe, Michael Pierce, Casey D Ragan, Erin Tegmier, Michele Walsh, Karen Wilson

**30 Years of Service**

Deborah Glaberman, Gary Lawlor, Michele Leary

**40 Years of Service**

Joanne Torpey

**Retirees**

Trisha Dee, Rod Doble, Mark Dwinells, Bob Germinaro, Kristine Komorowski, Fran Peters, Debra Roper, Lisa Vance

The **2024 Awards Celebration** will also be in celebration of achievement for the following:

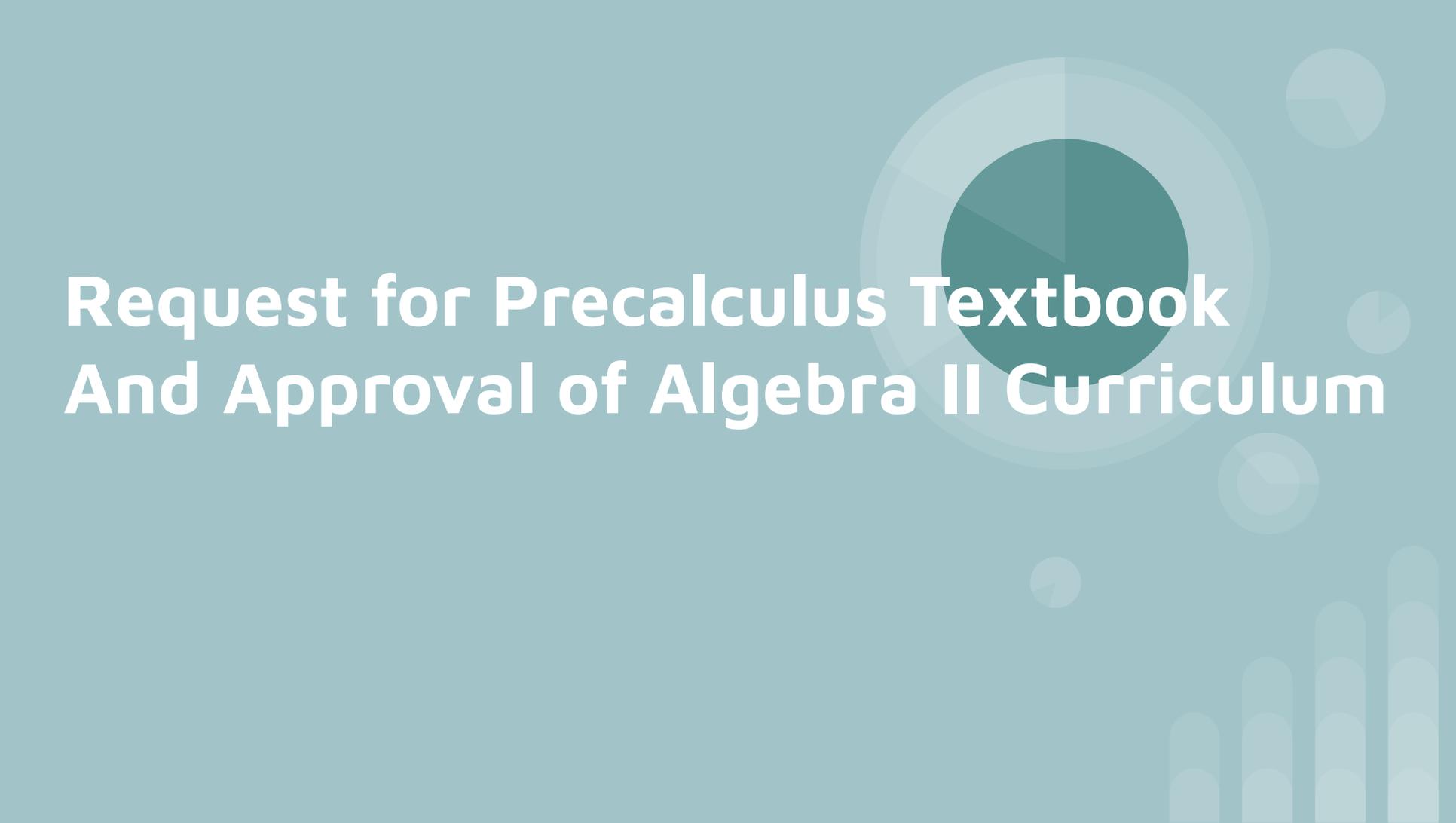
**Creativity, Innovation, & Excellence in Education:**

Jen Aponte, Frank A. Berry School  
Marilena Baldino, Frank A. Berry School  
Marianna Bedoya, Bethel Middle School  
Lisa Blum, Frank A. Berry School/Ralph M. T. Johnson School  
Erin Brown, Districtwide  
Kristine Calzone, Frank A. Berry School  
Brandi Chapman, Bethel Middle School  
Katie Ciskowski, Bethel High School  
Jill Claridge, Ralph M. T. Johnson School  
Mike Cohen, Frank A. Berry School/Ralph M. T. Johnson School  
Cheryl Daly, Ralph M. T. Johnson School/Bethel Middle School  
Kate DeGruttolo, Frank A. Berry School  
Fran Demers, Frank A. Berry School  
Jill DeRosa, Frank A. Berry School  
Clare Detwiler, Ralph M. T. Johnson School  
Catherine Emerick, Bethel Middle School  
Leah Esposito, Bethel Middle School  
Heather Farisello, Districtwide  
Annette Gallae, Ralph M. T. Johnson School  
Shawn Ingraham, Bethel Middle School  
Linda Knauff, Bethel High School  
Shelby Land, Frank A. Berry School  
Danielle Legnard, Frank A. Berry School  
Kari Leonard, Frank A. Berry School  
Tony Liberati, Anna H. Rockwell School  
Mary Liquori, Ralph M. T. Johnson School  
Keri Luchsinger, Anna H. Rockwell School  
Danielle Lynch, Frank A. Berry School  
Mattea McGill, Bethel High School  
Jess McGlinchey, Frank A. Berry School/Ralph M. T. Johnson School  
Doris Murphy, Bethel Middle School  
Majorie Overmier, Bethel High School  
Micki Paradise, Frank A. Berry School  
Michelle Pashaian, Frank A. Berry School  
Herbert Perlman, Bethel Middle School  
Joe Perreault, Ralph M. T. Johnson School  
Mary Plunsk, Anna H. Rockwell School  
Jennifer Rooney, Bethel Middle School  
Brittany Shea, Frank A. Berry School  
Amanda Stephens, Anna H. Rockwell School  
Samantha Tisi, Bethel Middle School  
Jenn White, Frank A. Berry School School

**Bethel Education Foundation's**

**Janice Jordan Excellence in Education Award:**

Jake Craybas, Elementary Recipient  
Debra Tierney, Secondary Recipient



# **Request for Precalculus Textbook And Approval of Algebra II Curriculum**



# Agenda

- Request for new Precalculus textbook and online resource
- Approval of Algebra II curriculum



## Selection Process

- Formed a selection committee of our current Precalculus Teachers
- Each member reviewed the different textbooks and additional resource.
- Member of the Math Honors Society reviewed the books to get a student perspective
- Committee decided on a favorite book and piloted a unit with their classes
- Had a virtual meeting with the sales representative and a MyMathLab representative



# Precalculus Graphing, Numerical, Algebraic

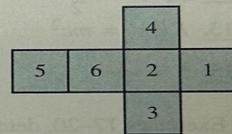
- AP Edition: Written in conjunction with College Board
- Well written, worked out examples are challenging and easy to follow
- Explorations, Group work, Challenge Problems
- Textbook follows a very similar order to our current curriculum
- Variety of challenging problems associated with a variety of different applications
- Worked out examples in the text directly related to practice problems
- Access to data sets
- MyMathLab

# Sample Problem

## Using a Polynomial to Model the Rolls of a Die

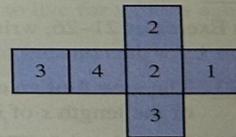
We can write a polynomial expression to represent a die—or other device, like a spinner or a coin, that produces random numbers. A **die** (singular of *dice*) is a polyhedral object with numbers on its faces. The die can be rolled to generate random numbers. The die is **fair** if each face (side) is equally likely to be rolled. We assume fair dice, spinners, and so on, unless otherwise stated. A standard 6-sided die is shown in Figure 10. A 4 has been rolled because a 4 is facing up.

We can represent this standard 6-sided die using a **net**. (This *net* is what we'd get if we could unfold the die onto a flat surface. Dots or numerals can be used for the numbers.)

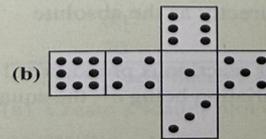
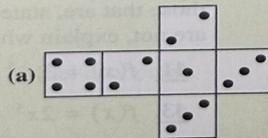


To model the possible *outcomes* of rolling this standard 6-sided die, we use the **outcome polynomial**  $1x^6 + 1x^5 + 1x^4 + 1x^3 + 1x^2 + 1x^1$ . For each term in this polynomial, the *exponents* (powers of  $x$ ) represent the numbers (1–6) on the faces of the die. The *coefficient* of each term tells us how many faces have that number on them. Therefore, the sum of the coefficients must equal the number of faces on the die.

Now consider the *nonstandard* 6-sided die given by the net at right. The polynomial that represents this unusual die is  $1x^4 + 2x^3 + 2x^2 + 1x^1$ . Remember, for each term in the polynomial, the exponent gives the number on the face, and the coefficient tells us how many faces have that number.



- The outcome polynomial  $2x^5 + 3x^4 + x^3 + 4x^2 + 2$  models a particular die. Describe the die, including the number of sides on the die and how many faces have each number. [*Hint*: Think of the last term as  $2x^0$ .]
- Below are nets for two different dice. Write an outcome polynomial for each die.



- For the pair of dice in part 2, how many ways can a sum of 6 be rolled?
- How many ways can doubles occur when these two dice are rolled?



# MyMathLab

- Online access to the entire textbook
- Teachers can create homework assignments from the Publisher's entire library (1 problem from book and the rest can be from any other)
- Videos, additional instructional tools, extra practice, and other helpful tools to assist students in learning the material
- Customizable Homework
  - Teacher creates an assignment
  - Student gets the assignment
  - Same concept for everyone but all have different numbers and variables
  - Students can help each other but will not be able to copy each other



# Cost Estimate

| Description                              | Unit Cost  | Quantity | Subtotal    |
|--|------------|----------|-------------|
| Precalculus Student<br>ed with MyMathLab | \$238.47   | 60       | \$14,308.20 |
| Teacher's Edition                        | \$148.47   | 4        | \$593.88    |
| MyMathLab                                | \$127.47   | 90       | \$11,472.30 |
| Shipping                                 | \$1,266.68 | 1        | \$1,266.68  |
| Total                                    |            |          | \$27,641.06 |



# Professional Learning

## Curriculum Writing

- Summer curriculum time
- Current and Future Precalculus teachers
- Ensure all curriculum documents are created using the UBD process and aligned to the new textbook

## Publisher workshops

- Virtual asynchronous activation session (complimentary)
- Two-hour virtual live activation session (cost)



# Algebra II Curriculum

Algebra II is one of our most important math courses at BHS. Algebra II takes students to the next level in their algebraic reasoning. The curriculum moves students from linear functions to quadratics and other more challenging functions. It provides students with the necessary skills to be successful in any STEM related course. Successful completion of the Algebra II curriculum gives students most of the necessary skills needed to see success on the PSAT/SAT.



# Math Course Sequence Options

- Algebra I, Algebra II, Geometry, Precalculus and/or Statistics
- Algebra I, Algebra II, Geometry, Elementary Discrete Math, Data Science
- Algebra I, Algebra II, Geometry, College Algebra, Data Science
- Algebra I, Algebra II, College Algebra, Geometry
- Algebra II, Geometry, Precalculus, Calculus and/or Statistics
- Integrated Math I, Integrated Math II, Financial Algebra I, Financial Algebra II



# Algebra II Links

[Algebra II Curriculum Folder](#)

[Algebra II Curriculum Map](#)

[Algebra II Performance Task - Parabola Selfie](#)



# Units of Study

Unit 1 - Sequences and Function

Unit 2 - Introduction to Quadratics

Unit 3 - Quadratic Equations

Unit 4 - Polynomials and Rational Functions

Unit 5 - Complex Numbers and Rational Exponents

Unit 6 - Exponential Equations and Functions

Unit 7 - Transformations of Functions

## Bethel Public School

### Textbook or Instructional Resource Adoption Form

Please use as much space as needed to complete the questions. When the form is complete, please email it to Dr. Brooks and send one hard copy with signatures in the interoffice mail. If you need any assistance with any part of the form, please contact Dr. Brooks.

1. Title of Currently Used Textbook/Instructional Resource:  
*Precalculus with Limits 3rd edition* by Ron Larson
2. Title of Proposed Textbook/Instructional Resource:  
*Precalculus Graphical, Numerical, Algebraic - AP Edition* by Demana et al.
3. Subject Area:  
Mathematics
4. Course:  
Precalculus 31 & 42
5. Grade Level:  
High School
6. Author(s):  
Demana, Waits, Foley, Kennedy, Gorsuch, Phelps
7. Publisher:  
Pearson
8. Unit Cost of Textbook or Unit Cost of the Instructional Resource:  
Textbook with MyMathLab - \$238.47  
Teacher's Edition - \$148.47  
MyMathLab for School 6yr - Digital Delivery Access \$127.47
9. Number of Textbooks/Instructional Resource Materials Needed:  
60 Textbooks and MyMathLab  
4 Teacher's Edition  
90 Additional MyMathLab
10. Total Cost (including estimated shipping):  
\$27,641.06
11. What specific selection criteria were established by the Selection Committee for a new textbook or instructional material? (enumerate below)

The selection committee was looking for well written easy to follow text.  
A variety of different problems covering a topic.  
Worked out examples that were annotated and easy to follow.  
Course progression that followed or closely matched our current curriculum.  
Valuable online resources that can assist students, enhance content and access to the textbook.  
Textbooks that are currently accepted by College Board and UConn for use in their Precalculus course.

12. List the names of the Selection Committee members:

Michele Bradshaw, Kathleen Ciskowski, Jonathan DosSantos, Jason Gill, Dr. Reine Issa

13. Has the Selection Committee carefully vetted this textbook/instructional resource using the established criteria?

Yes. Teachers had a Math Honors Society student review the textbook and create a list of pros and cons for each textbook. Representative from Savvas Learning presented to the group about MyMathLab. The presentation showed the extensive amount of resources and material available to teachers and students. Changed the minds of two teachers about MyMathLab's usefulness in our course. Textbook projects and activities were good examples of real world applications of the content.

14. Is there a digital component to this textbook that would collect student information (names, email, date of birth, address, etc.) or house student content?

- a. Did you review the status of the application or software program on our website to see if it has already been approved for use?

Yes, it has not been approved yet.

- b. If not, did you go through the Bethel Public School's resource review process to have it approved?

Submitted the application to have the resource evaluated for approval  
3/13/24

15. What other textbooks or instructional resources were reviewed during the selection process? (list them below)

*Precalculus with Limits 8e A Graphing Approach* Larson

*Precalculus* Blitzer

*Precalculus* Sullivan

*Precalculus Enhanced with Graphing Utilities* Sullivan and Sullivan

16. Was all or part of the textbook or instructional resource piloted by teachers? (Describe the pilot procedure or explain why the textbook was not piloted.)

The Precalculus PLC used one of the units from the textbook with their classes. The unit of study coincided with the unit of study (Inverses and Composition of Functions) from the current Precalculus curriculum. Upon completion of the unit the teachers had the students provide feedback about the text, practice problems, worked out examples and flow of the unit. Mostly positive feedback from the students, teachers said the assessment data showed solid understanding of the material.

17. What other school districts in our area or in Connecticut use this textbook or instructional resource?

Textbook has not been released yet so there are not any other schools using the textbook yet.

Previous edition by the authors being used at UCONN MathLab is currently being used at Greenwich, Darien, Newtown, Stratford, Trumbull and Bridgeport.

18. Summarize the reasons why this textbook or instructional resource is being recommended to the Board of Education for adoption.

The textbook was a cooperative creation by the authors and College Board. While we are not currently offering AP Precalculus if we do decide to move forward with that course we would already have one of the approved textbooks available to our students. The textbook has a variety of activities and strategies that help present the material to the students in a comprehensive way. Approaching the course graphically, numerically and algebraically helps students to make connections to the complex material that will be long lasting.

MyMathLab is an exceptional resource available to our students. The website gives our students access to the textbook in an online format which has many benefits to our students and staff. Having online access helps keep the textbooks in excellent condition for a significant amount of time. Students can also access additional resources on the website like video lessons, practice problems, projects, homework, etc. The website also gives our teachers and students access to the entire Pearson Library of textbooks. When creating homework or practice teachers are able to use the entire catalog as long as one of the problems is from the textbook. Additionally, since our students can access the entire textbook online we do not need to buy a textbook for every student giving us a huge cost savings.

Signature: Jason Gill  
Proposal Originator

Date: 3/14/24

Signature: [Handwritten Signature]  
Building Administrator

Date: 3/19/24

Signature: [Handwritten Signature]  
District Administrator

Date: 3.19.24



Mr. Jason Gill  
 Mathematics Dept Chair  
 Bethel High School  
 300 Whittlesey Dr  
 Bethel, CT 06801-1549  
 United States

**Quote Number:** 261100-4  
**Quote Creation Date:** 03-04-2024  
**Quote Expiration Date:** 09-30-2024

**Quote Release:** 4

**60x Demana, Precalculus: AP Edition 11e ©2024 + 150 MyMathLab Digital  
 Price Quote Summary**

| Solution   | Base Amount                    | Total               |
|--|--------------------------------|---------------------|
| <b>Demana: Precalculus: Graphical, MyMathLab</b> | \$ 14,902.08                   | \$ 14,902.08        |
|  | \$ 11,472.30                   | \$ 11,472.30        |
| <b>Solution Subtotal</b>                         | <b>\$ 26,374.38</b>            | <b>\$ 26,374.38</b> |
|  | <b>Shipping &amp; Handling</b> | <b>\$ 1,266.68</b>  |
|  | <b>Total</b>                   | <b>\$ 27,641.06</b> |

**Price Quote Detail**

| ISBN  | Description   | Price  | Charged Qty | Total Charged       |
|---|---|--------|-------------|---------------------|
| <b>Demana: Precalculus: Graphical, Numerical Algebraic</b>                                |   |        |             |                     |
| <b>Demana, Precalculus: Graphical, Numerical, Algebraic AP Edition 11e ©2024</b>          |   |        |             |                     |
| 9780138049263   | PRECALCULUS: GRAPHICAL, NUMERICAL, ALGEBRAIC, STUDENT EDITION + 6YR MYMATHLAB FOR SCHOOL W/ETEXT -- PACKAGE | 238.47 | 60          | \$14,308.20         |
| 9780138049355   | PRECALCULUS: GRAPHICAL, NUMERICAL, ALGEBRAIC, ANNOTATED TEACHER EDITION                                     | 148.47 | 4           | \$593.88            |
| <b>Demana, Precalculus: Graphical, Numerical, Algebraic AP Edition 11e ©2024 Subtotal</b> |   |        |             | <b>\$ 14,902.08</b> |
| <b>Demana: Precalculus: Graphical, Numerical Algebraic Subtotal</b>                       |   |        |             | <b>\$ 14,902.08</b> |
| <b>MyMathLab</b>  |   |        |             |                     |
| <b>MyMathLab for School from Pearson</b>  |   |        |             |                     |

Bethel High School

| <b>ISBN</b>                                       | <b>Description</b>                                  | <b>Price</b> | <b>Charged Qty</b> | <b>Total Charged</b> |
|---|---|--------------|--------------------|----------------------|
| 9780132962391                                     | MyMathLab® for School 6yr - Digital Delivery Access | 127.47       | 90                 | \$11,472.30          |
| <b>MyMathLab for School from Pearson Subtotal</b> |   |              |                    | <b>\$ 11,472.30</b>  |
| <b>MyMathLab Subtotal</b>                         |   |              |                    | <b>\$ 11,472.30</b>  |
| <b>Solution Subtotal</b>                          |   |              |                    | <b>\$ 26,374.38</b>  |
| <b>Shipping and Handling</b>                      |   |              |                    | <b>\$ 1,266.68</b>   |
| <b>Total</b>                                      |   |              |                    | <b>\$ 27,641.06</b>  |

## Savvas Learning Company LLC Terms and Conditions

**To place your order** please submit a copy of this price quote with your Purchase Order, include the Quote Number on your Purchase Order, and include any other required documentation. You may send the order documents using an electronic form **or** by mail. Please submit your PO and price quote via one of the following methods:

**Online:** <https://support.savvas.com/support/s/customerserviceus>

**Mail:** PO Box 6820, Chandler, AZ 85246

Savvas does not accept Credit Card information via postal mail, facsimile, or email. Credit Card information will only be accepted via phone, eCommerce, or OASIS. For questions regarding your order please call Customer Service: 1-800-848-9500.

**Price quote:** This is a price quote for the customer's convenience only, and not an offer to contract. All quotes are subject to review and final acceptance by an authorized representative of Savvas at its offices. Savvas reserves the right to correct typographical, computational or other errors. Savvas' standard payment terms are net 30 days unless otherwise specified. All pricing is in US Dollars unless otherwise specified. Pricing calculations use multiple decimal places to determine the most accurate extended pricing but are represented in standard currency format.

**Shipping & handling** charges (where applicable) are shown on the quote. S&H rates quoted are for standard ground transportation and may not reflect account contracted rates. If expedited shipping is requested, actual charges may be higher. For orders picked up at the Savvas warehouse by the customer or a third party carrier contracted by the customer, a 2% handling charge will be applied to shippable items. The 2% charge will appear on the customer proposal and invoice as a S&H charge.

**Taxes:** All pricing in this quote is exclusive of any applicable sales, use or other similar taxes or duties. The customer is responsible for any such taxes or duties that may apply; if the customer is tax exempt, evidence of such tax exemption must be provided.

Estimated tax may be provided solely for customer convenience. The amount indicated is only an estimate and is intended to be helpful for budgeting purposes. The actual amount of sales tax assessed at the time of invoicing may be more or less.

**Platforms:** Savvas, and any third party for which Savvas serves as the sales agent or distributor, reserve the right to change and/or update technology platforms, including possible edition updates to customers during the term of access. Customers will be notified of any change prior to the beginning of the new school year.

**Damaged & Defective Products:** If a print product, or the print component of a blended (print & digital) product, is received in damaged or defective condition, Savvas will issue a credit or replacement at no charge to the customer if the customer promptly (no later than 120 days) returns the damaged or defective product. Customers must report missing product immediately upon receipt.

**Return Policy:** Returns (other than damaged or defective products) are subject to the following conditions: (a) materials must be returned to Savvas at the customer's expense in new, unused condition, suitable for resale by Savvas (note that any barcoding, sticker, stamping or similar marking on any print materials renders them unsuitable for resale); (b) materials must be returned within six (6) months from the date of purchase; (c) the customer must obtain a Return Materials Authorization ("RMA") from Savvas prior to returning the materials, and must ship the materials back to Savvas within thirty days of receiving the RMA; (d) all materials sold in a set or package must be returned complete as originally sold; and (e) any materials provided by Savvas to the customer on a no-charge basis in consideration of the customer's purchase must be returned in proportion to the purchased materials that are being returned for a credit. A restocking fee of 3% may be applied to credits over \$1,000. Savvas' return policy does not apply to science lab kits or trade publication novels, which are sold on a non-returnable basis.

**Consumable Worktexts:** Subsequent year consumable worktexts will ship each year on the anniversary of the original order date for the duration of their license. Worktexts will ship to the location listed on the original order. Quantities for each grade level and title will remain consistent each year. Changes to quantities of titles previously ordered, shipping location changes, or any other changes to consumable worktext shipments must be made 4 weeks prior to shipment date. (the anniversary of the original order date unless changed). Changes can be made on the Subscription Worktext Site:

<https://worktext-subscriptions.savvas.com>

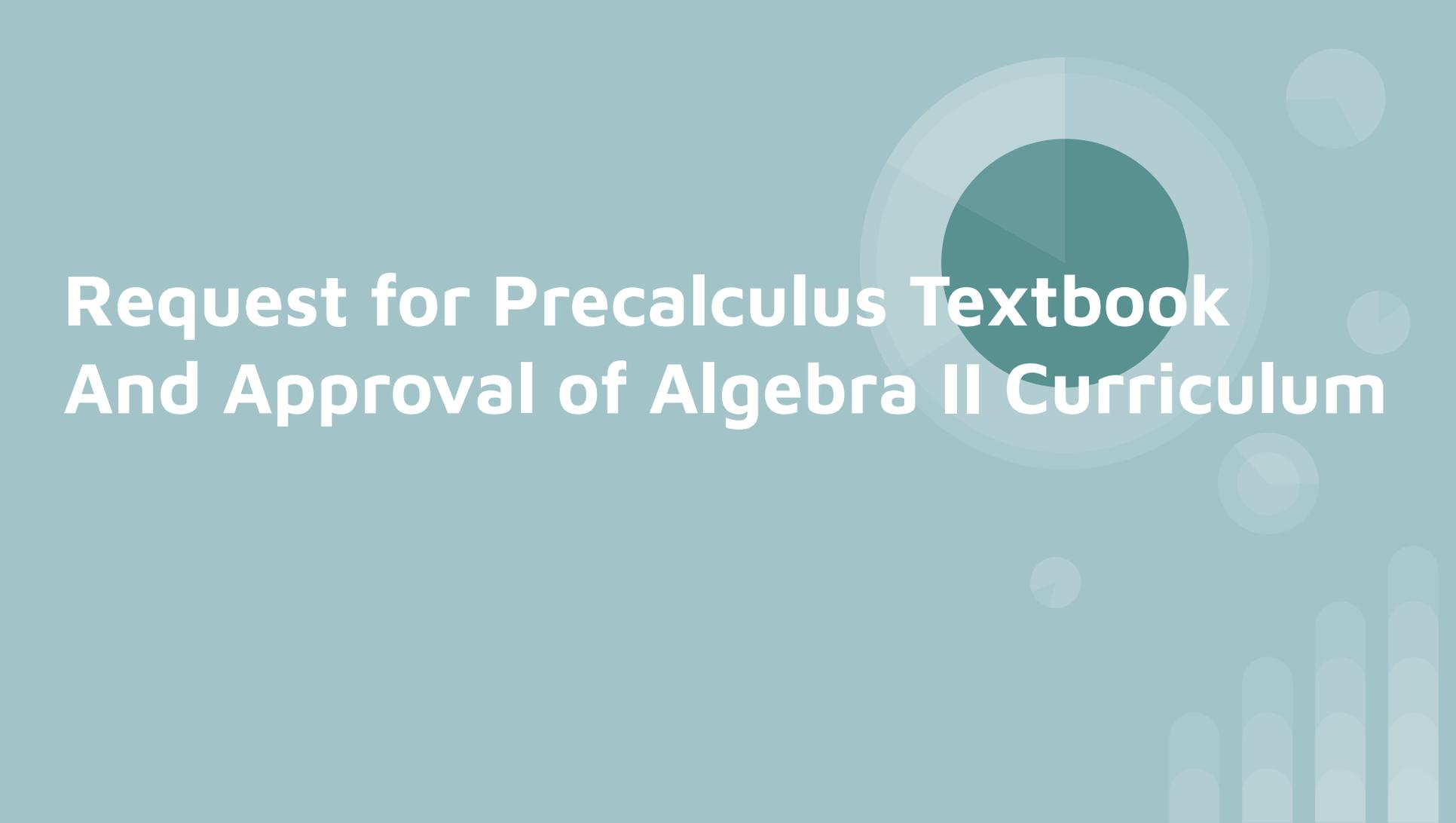
**Annual subscriptions for iLit and Successmaker Only:** Savvas' iLit and Successmaker products (and no others) automatically renew on the anniversary date of the original purchase and will be invoiced accordingly unless otherwise specified.

**Technical support services** are included with purchase of Savvas digital products.

online help: <https://support.savvas.com/support/s/k12-curriculum-support-form>

phone: 1-800-848-9500

**Professional Services:** Professional Services: All paid services must be delivered within twelve (12) months of the order date of those services. Any unused services expire at the end of such twelve (12) month period, unless otherwise specified in contract terms. Any cancellation made with less than 72 hours' notice will result in a cancellation fee equal to the full price of the event. MySavvasTraining is included with purchase of products (<https://mysavvastraining.com>).



# **Request for Precalculus Textbook And Approval of Algebra II Curriculum**



# Agenda

- Request for new Precalculus textbook and online resource
- Approval of Algebra II curriculum



## Selection Process

- Formed a selection committee of our current Precalculus Teachers
- Each member reviewed the different textbooks and additional resource.
- Member of the Math Honors Society reviewed the books to get a student perspective
- Committee decided on a favorite book and piloted a unit with their classes
- Had a virtual meeting with the sales representative and a MyMathLab representative



# Precalculus Graphing, Numerical, Algebraic

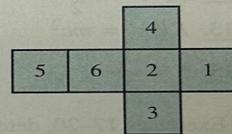
- AP Edition: Written in conjunction with College Board
- Well written, worked out examples are challenging and easy to follow
- Explorations, Group work, Challenge Problems
- Textbook follows a very similar order to our current curriculum
- Variety of challenging problems associated with a variety of different applications
- Worked out examples in the text directly related to practice problems
- Access to data sets
- MyMathLab

# Sample Problem

## Using a Polynomial to Model the Rolls of a Die

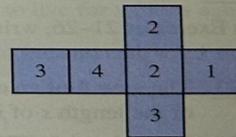
We can write a polynomial expression to represent a die—or other device, like a spinner or a coin, that produces random numbers. A **die** (singular of *dice*) is a polyhedral object with numbers on its faces. The die can be rolled to generate random numbers. The die is **fair** if each face (side) is equally likely to be rolled. We assume fair dice, spinners, and so on, unless otherwise stated. A standard 6-sided die is shown in Figure 10. A 4 has been rolled because a 4 is facing up.

We can represent this standard 6-sided die using a **net**. (This *net* is what we'd get if we could unfold the die onto a flat surface. Dots or numerals can be used for the numbers.)

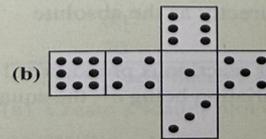
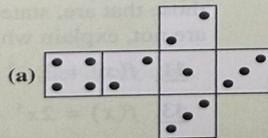


To model the possible *outcomes* of rolling this standard 6-sided die, we use the **outcome polynomial**  $1x^6 + 1x^5 + 1x^4 + 1x^3 + 1x^2 + 1x^1$ . For each term in this polynomial, the *exponents* (powers of  $x$ ) represent the numbers (1–6) on the faces of the die. The *coefficient* of each term tells us how many faces have that number on them. Therefore, the sum of the coefficients must equal the number of faces on the die.

Now consider the *nonstandard* 6-sided die given by the net at right. The polynomial that represents this unusual die is  $1x^4 + 2x^3 + 2x^2 + 1x^1$ . Remember, for each term in the polynomial, the exponent gives the number on the face, and the coefficient tells us how many faces have that number.



1. The outcome polynomial  $2x^5 + 3x^4 + x^3 + 4x^2 + 2$  models a particular die. Describe the die, including the number of sides on the die and how many faces have each number. [*Hint*: Think of the last term as  $2x^0$ .]
2. Below are nets for two different dice. Write an outcome polynomial for each die.



3. For the pair of dice in part 2, how many ways can a sum of 6 be rolled?
4. How many ways can doubles occur when these two dice are rolled?



# MyMathLab

- Online access to the entire textbook
- Teachers can create homework assignments from the Publisher's entire library (1 problem from book and the rest can be from any other)
- Videos, additional instructional tools, extra practice, and other helpful tools to assist students in learning the material
- Customizable Homework
  - Teacher creates an assignment
  - Student gets the assignment
  - Same concept for everyone but all have different numbers and variables
  - Students can help each other but will not be able to copy each other



# Cost Estimate

| Description                              | Unit Cost  | Quantity | Subtotal    |
|--|------------|----------|-------------|
| Precalculus Student<br>ed with MyMathLab | \$238.47   | 60       | \$14,308.20 |
| Teacher's Edition                        | \$148.47   | 4        | \$593.88    |
| MyMathLab                                | \$127.47   | 90       | \$11,472.30 |
| Shipping                                 | \$1,266.68 | 1        | \$1,266.68  |
| Total                                    |            |          | \$27,641.06 |



# Professional Learning

## Curriculum Writing

- Summer curriculum time
- Current and Future Precalculus teachers
- Ensure all curriculum documents are created using the UBD process and aligned to the new textbook

## Publisher workshops

- Virtual asynchronous activation session (complimentary)
- Two-hour virtual live activation session (cost)



# Algebra II Curriculum

Algebra II is one of our most important math courses at BHS. Algebra II takes students to the next level in their algebraic reasoning. The curriculum moves students from linear functions to quadratics and other more challenging functions. It provides students with the necessary skills to be successful in any STEM related course. Successful completion of the Algebra II curriculum gives students most of the necessary skills needed to see success on the PSAT/SAT.



# Math Course Sequence Options

- Algebra I, Algebra II, Geometry, Precalculus and/or Statistics
- Algebra I, Algebra II, Geometry, Elementary Discrete Math, Data Science
- Algebra I, Algebra II, Geometry, College Algebra, Data Science
- Algebra I, Algebra II, College Algebra, Geometry
- Algebra II, Geometry, Precalculus, Calculus and/or Statistics
- Integrated Math I, Integrated Math II, Financial Algebra I, Financial Algebra II



# Algebra II Links

[Algebra II Curriculum Folder](#)

[Algebra II Curriculum Map](#)

[Algebra II Performance Task - Parabola Selfie](#)



# Units of Study

Unit 1 - Sequences and Function

Unit 2 - Introduction to Quadratics

Unit 3 - Quadratic Equations

Unit 4 - Polynomials and Rational Functions

Unit 5 - Complex Numbers and Rational Exponents

Unit 6 - Exponential Equations and Functions

Unit 7 - Transformations of Functions

**April 25, 2024**  
**Board of Education**

BHS Science  
Ray Turek

# Agenda

- Curricula:
  - Environmental Science
  - Forensic Science
  - Physical Science
- AP Environmental Science Textbook
- US-Korean Collaborative Program

# Environmental Science Curriculum

Duration: 1 semester (.5 credits)

Level: College Prep

Grades: 11 & 12

This science elective addresses the global ecosystem and the ways local, federal, and international policies regulate how human beings use natural resources on Earth.

[Environmental Science Curriculum Folder](#)

# Units of Study:

- Introduction to Environmental Science and Populations
- The Living World
- Agriculture and Its Impact on the Environment
- Waste, Energy, and Human Effects on the Environment.

# A Deeper Look Into Unit 3: Agriculture

## ESSENTIAL QUESTIONS

1. What concerns exist in regards to illnesses and toxins stemming from agriculture, and how are they spread?
2. What effects does agriculture have on nearby ecosystems, water supplies, and the environment?
3. How can we best prevent environmental problems from arising from agriculture?

[Unit 3 Link](#)

# Forensic Science Curriculum

Duration: 1 semester (.5 credits)

Level: College Prep

Grades: 11 & 12

Forensic scientists are responsible for analyzing evidence collected at crime scenes by legal officials. Students will process and analyze evidence using techniques grounded in biology, chemistry, and physics.

[Forensic Science Curriculum Folder](#)

# Units of Study:

- Introduction to Forensic Science through the Crime Scene.
- Estimating Post-mortem interval, Entomology, and Osteology
- Biological Evidence: Blood and blood stain patterns, DNA, fingerprinting.
- Non-Biological Evidence: Ballistics, glass, criminal profiling/psychology
- Forensic Toxicology and Chemistry

# A Deeper Look Into Unit 2: Estimating post-mortem interval, Entomology, & Osteology

## ESSENTIAL QUESTIONS

1. What are the ways in which forensic scientists determine the time of death of a victim?
2. How can bones be used to help in the identification of a victim?

[Unit 2 Link](#)

# Physical Science Curriculum

Duration: 1 year (1.0 credits)

Level: College Prep

Grades: 10

This course is designed to be an alternative to the traditional high school chemistry course taken in the sophomore year. The course focuses on the conceptual components of chemistry as well as the Earth and Space Science standards required by the state.

[Physical Science Curriculum Folder](#)

# Units of Study:

## Semester 1:

- Introduction to the Scientific Method
- Atomic Structure
- Chemical Reactions

## Semester 2:

- Carbon Chemistry
- Heat and Energy
- Earth Systems

# A Deeper Look Into Unit 6: Earth Systems

## ESSENTIAL QUESTIONS

1. How can historical global climate evidence be used to make predictions about the future impacts of Earth's systems?
2. Can steps be taken to change Earth's climate?

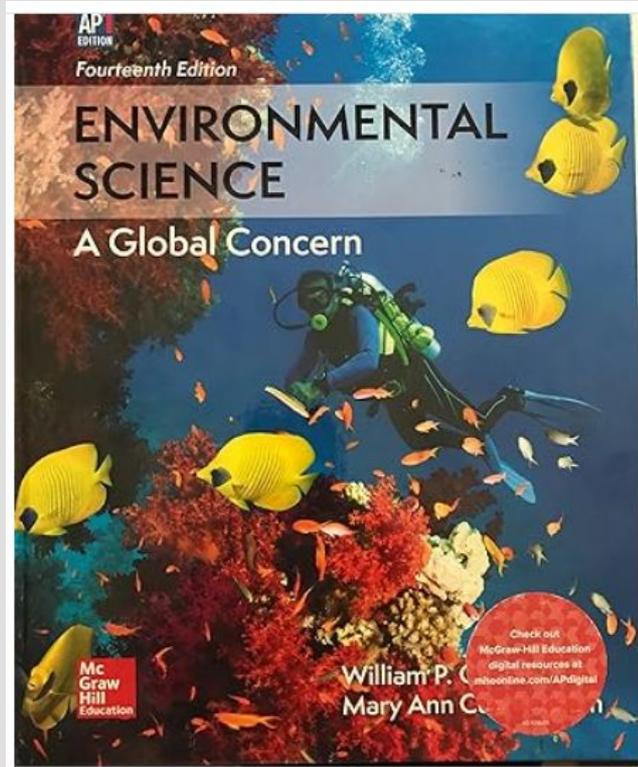
[Unit 6 Link](#)

# AP Environmental Science Textbook



*Environmental Science for the AP Course 4e* by Andrew Friedland and Rick Relyea, 2023

# Why the need?



The previous textbook was purchased in 2017 to meet the needs of our new class.

In 2019 College Board made substantial changes to the APES CED.

| <b>Topic</b>                     | <b>Percent</b> |
|----------------------------------|----------------|
| Earth Systems and Resources      | 10–15%         |
| The Living World                 | 10–15%         |
| Population                       | 10–15%         |
| Land and Water use               | 10–15%         |
| Energy Resources and Consumption | 10–15%         |
| Pollution                        | 25–30%         |
| Global Change                    | 10–15%         |

| <b>Unit</b> | <b>Topic</b>                      | <b>Exam Weighting</b> |
|-------------|-----------------------------------|-----------------------|
| 1           | The Living World: Ecosystems      | 6-8%                  |
| 2           | The Living World: Biodiversity    | 6-8%                  |
| 3           | Populations                       | 10–15%                |
| 4           | Earth Systems and Resources       | 10–15%                |
| 5           | Land and Water Use                | 10–15%                |
| 6           | Energy Resources and Consumption  | 10-15%                |
| 7           | Atmospheric Pollution             | 7-10%                 |
| 8           | Aquatic and Terrestrial Pollution | 7-10%                 |
| 9           | Global Change                     | 15-20%                |

# Why Mr. Cox Really Loves This Book:

- The new proposed textbook aligns 100% with the AP Environmental Science Course and Exam Description (CED). There is no extra information. There is no missing information.
- The textbook asks students to engage in the AP Environmental Science framework practices which include: Concept Explanation, Visual Representations, Text Analysis, Data Analysis, Mathematical Routines, and Environmental Solutions.
- A full complement of teacher focused resources are provided.

# Cost

| Itemized Products              |               |  |         |                               |              |          |              |  |  |
|--------------------------------|---------------|--|---------|-------------------------------|--------------|----------|--------------|--|--|
| ISBN                           | EAN           | Product                                  | Edition | Author                        | Sales Price  | Quantity | Total Price  |  |  |
| 1319409288                     | 9781319409289 | Environmental Science for the AP® Course | 4       | Andrew Friedland; Rick Relyea | USD 153.98   | 40.00    | USD 6,159.20 |  |  |
| <b>Itemized Product Total:</b> |               |  |         |                               | USD 6,159.20 |          |              |  |  |

40 books @ \$153.93 each  
\$6159.20

# US-South Korea Science Collaborative Research and Education Project



2023 Timeline

## The US-Korea Science Research and Education Project

### Collaborative Exchange Partnership Between Students of US and South Korea Schools



In late August 2023 we were invited to join in the collaborative partnership and travel to Korea from December 15th -22nd. -we declined.

# Instead....

Two separate groups of BHS students collaborated on two different projects from October to December.

- **Group 1** Mathematical Modeling for the Analysis of Desalination-Korean Science Research Project Partnership
  - 12 students
  - Experimentation based research
- **Group 2:** Accuracy Analysis of Trend Lines; Using Distribution Plot in Each Time Series
  - 10 students
  - Mathematical modeling based research

# Collaboration

- Both groups met with a paired S. Korea private science school via Zoom on two different occasions.
- Schools shared their interpretation of their assigned project and presented their work.
- Mentors and a moderator helped coordinate the sessions.



# Meeting Presentation

## Mathematical Modeling for the Analysis of Desalination

### INTRODUCTION

Desalination is the process of removing salt and other minerals from seawater to produce fresh water. It is a critical technology for providing water in arid and semi-arid regions, as well as for ensuring water security in coastal areas.

#### Why Desalination?

Water scarcity is an "endemic" reality for 2.5 billion people. While many regions have abundant water, the global distribution is highly uneven. Desalination provides a reliable source of fresh water in areas where natural resources are limited.

#### Positives of Solar

- 1. Solar energy is a renewable resource that does not deplete natural resources. Unlike fossil fuels, solar energy is available every day.
- 2. Solar energy is clean and produces no greenhouse gas emissions.

- 3. Solar energy is abundant and widely available, especially in coastal and arid regions.
- 4. Solar energy is a decentralized energy source, allowing communities to generate their own power.

#### Negatives of Solar

- 1. High initial costs for solar panels and installation.
- 2. Intermittent energy production due to weather and day/night cycles.
- 3. Requires significant land area for large-scale solar farms.
- 4. Energy storage solutions are still being developed.
- 5. Potential environmental impacts from manufacturing and disposal of solar panels.



#### Positives of Boiling

- 1. Boiling is a simple and effective method for removing many types of contaminants.
- 2. It does not require electricity or complex machinery.
- 3. Boiling kills most bacteria and viruses, making the water safe to drink.
- 4. It is a low-cost method for small-scale water treatment.

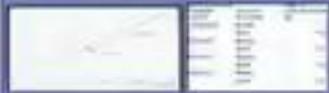
#### Negatives of Boiling

- 1. Boiling requires a significant amount of energy, often from fossil fuels.
- 2. It does not remove dissolved salts or heavy metals.
- 3. Boiling can be time-consuming and inefficient for large volumes of water.
- 4. It does not remove chemical contaminants.



### SOLAR

The solar desalination process involves using solar energy to heat water, which then evaporates and is collected as fresh water. This process is highly dependent on the intensity of solar radiation and the efficiency of the solar collectors used.



The graph illustrates that as solar radiation increases, the amount of fresh water produced by the solar still also increases proportionally. This demonstrates the direct relationship between solar energy input and the output of the desalination process.

### Boiling

The boiling desalination process involves heating seawater to its boiling point, where the water evaporates and is then condensed back into fresh water. This process is highly energy-intensive and is typically used for small-scale water treatment.



The graph shows that the amount of fresh water produced is directly proportional to the amount of energy used for boiling. This highlights the energy efficiency of the boiling process, which is a key factor in its overall cost and practicality.

### CONCLUSION

The investigation into solar and boiling desalination methods has shown that solar energy is a promising and sustainable source of power for desalination. However, the high initial costs and intermittent nature of solar energy remain significant challenges.

#### Conclusion from Solar Investigation

The solar desalination process is highly dependent on the intensity of solar radiation. While it offers a clean and renewable energy source, the high initial costs and intermittent nature of solar energy remain significant challenges. Further research into solar collector efficiency and energy storage solutions is needed to make solar desalination more viable.

#### Conclusion from Investigation by Boiling

The boiling desalination process is a simple and effective method for removing many types of contaminants. However, it is highly energy-intensive and is typically used for small-scale water treatment. The high energy requirements make it less sustainable than solar desalination for large-scale applications.

#### Action Plan

Based on the findings of this investigation, the following action plan is recommended: 1. Invest in research and development to improve solar collector efficiency and energy storage solutions. 2. Explore government incentives and subsidies to reduce the initial costs of solar desalination systems. 3. Conduct further studies on the environmental impacts of large-scale solar desalination projects.

#### What would we do differently in the future?

In the future, we would focus on developing more efficient solar collectors and energy storage solutions to overcome the intermittent nature of solar energy. Additionally, we would explore the use of hybrid desalination systems that combine solar energy with other sustainable energy sources to improve overall efficiency and reduce costs.

#### Final Notes

This investigation has provided valuable insights into the challenges and opportunities of solar and boiling desalination. While solar energy offers a promising path towards sustainable water security, significant technological and financial barriers remain. Continued research and innovation are essential for making desalination a truly sustainable and accessible solution for the future.

#### Water Cycle

The water cycle is a continuous process that involves the evaporation of water from the surface of the ocean, the condensation of water vapor into clouds, and the precipitation of water as rain or snow. This cycle is essential for maintaining the Earth's water balance and supporting life on the planet.



# Plan for 2024

- We have already committed to two teams for the 2024 school year.
  - We will have input into our topic.
  - Timeline will be moved up and students will start earlier.
- We currently have no plans to travel to S. Korea however perhaps down the road it may be something we would like to consider.

# BETHEL BOARD OF EDUCATION

## Briefing Summary

### Date of Briefing to the Board:

4.25.24

### Topic:

BHS Science Curriculum

### Summary of the Briefing:

We are bringing forward the [Environmental Science Curriculum](#).

This course addresses the global ecosystem and the ways local, federal, and international policies regulate how human beings use natural resources on Earth. This class emphasizes environmental issues and some of the potential ways to address them. Multimedia resources, fieldwork, laboratories, and case studies will be used to investigate environmental issues.

We are bringing forward the [Forensics Curriculum](#).

This elective course is designed for students with an interest in the field of forensics. Students taking the course should have a strong understanding of biological concepts (e.g., the structure of DNA). Forensic scientists are responsible for analyzing evidence collected at crime scenes by legal officials. Students will process and analyze evidence using techniques grounded in biology, chemistry, and physics. The course will include famous crimes throughout history, how science has been used to solve these crimes, and ethical and legal issues involved within the discipline.

We are bringing forward the [Physical Science Curriculum](#).

This course is designed to be an alternative to the traditional high school chemistry course. Students taking the course will be asked to use the NGSS Science and Engineering Practices to learn about the Scientific Method, Atomic Structure, Chemical Reactions, Carbon Chemistry, Heat and Energy, and Earth Systems.

We are bringing forward a new AP Environmental Science textbook.

*Environmental Science for the AP Course 4e* by Friedland and Relyea

- AP Environmental Science (APES) students are currently using a textbook that was purchased at a time when the APES curriculum was substantially different from the current curriculum.
- In 2019 the APES underwent extensive changes to both the topics covered and the end of year AP exam.

Pre- 2019

| Topic                            | Percent |
|----------------------------------|---------|
| Earth Systems and Resources      | 10–15%  |
| The Living World                 | 10–15%  |
| Population                       | 10–15%  |
| Land and Water use               | 10–15%  |
| Energy Resources and Consumption | 10–15%  |
| Pollution                        | 25–30%  |
| Global Change                    | 10–15%  |

Current

| Unit | Topic                             | Exam Weighting |
|------|-----------------------------------|----------------|
| 1    | The Living World: Ecosystems      | 6-8%           |
| 2    | The Living World: Biodiversity    | 6-8%           |
| 3    | Populations                       | 10–15%         |
| 4    | Earth Systems and Resources       | 10–15%         |
| 5    | Land and Water Use                | 10–15%         |
| 6    | Energy Resources and Consumption  | 10-15%         |
| 7    | Atmospheric Pollution             | 7-10%          |
| 8    | Aquatic and Terrestrial Pollution | 7-10%          |
| 9    | Global Change                     | 15-20%         |

- The new proposed textbook aligns 100% with the AP Environmental Science Course and Exam Description (CED). There is no extra information. There is no missing information.
- The textbook asks students to engage in the The AP Environmental Science framework practices which include: Concept Explanation, Visual Representations, Text Analysis, Data Analysis, Mathematical Routines, and Environmental Solutions.
- A full complement of teacher focused resources are provided.
- The book offers an array of additional benefits:
  - The book contains Unit-Opening Case Studies designed to spark discussion.
  - The book emphasizes the interconnectedness of topics across the various units.
  - The book provides numerous opportunities for both unit level and cumulative practice for the AP exam.

## Textbook Cost

| Itemized Products |               |  |         |                               |             |          |              |  |
|-------------------|---------------|--|---------|-------------------------------|-------------|----------|--------------|--|
| ISBN              | EAN           | Product                                  | Edition | Author                        | Sales Price | Quantity | Total Price  |  |
| 1319409288        | 9781319409289 | Environmental Science for the AP® Course | 4       | Andrew Friedland; Rick Relyea | USD 153.98  | 40.00    | USD 6,159.20 |  |

Itemized Product Total: USD 6,159.20

## Recommended Motions:

Motion to bring the Environmental Science, Forensics, and Physical Science curricula to the full Board of Education for approval.

Motion to bring the AP Environmental Science textbook, *Environmental Science for the AP Course 4e* by Friedland and Relyea, to the full Board of Education for approval.

## Bethel Public School

### Textbook or Instructional Resource Adoption Form

Please use as much space as needed to complete the questions. When the form is complete, please email it to Dr. Brooks and send one hard copy with signatures in the interoffice mail. If you need any assistance with any part of the form, please contact Dr. Brooks.

1. Title of **Currently Used** Textbook/Instructional Resource:  
*Environmental Science: A Global Concern 14th Edition by William P. Cunningham*
2. Title of **Proposed** Textbook/Instructional Resource:  
*Environmental Science for the AP Course 4e*
3. Subject Area: High School Science
4. Course: AP Environmental Science
5. Grade Level: 11,12
6. Author(s): Andrew Friedland and Rick Relyea
7. Publisher: Bedford, Freeman and Worth
8. Unit Cost of Textbook or Unit Cost of the Instructional Resource:  
\$153.93/ textbook
9. Number of Textbooks/Instructional Resource Materials Needed:  
40
10. Total Cost (including estimated shipping):  
\$6,159.20
11. What **specific selection criteria** were established by the **Selection Committee** for a new textbook or instructional material?
  1. The textbook should completely align with the AP Environmental Science Course and Exam Description.
  2. The textbook should provide students with opportunities to practice AP Exam-like questions within units and as a whole.
  3. The textbook should allow students to interact with the The AP Environmental Science framework practices which include: Concept Explanation, Visual Representations, Text Analysis, Data Analysis, Mathematical Routines, and Environmental Solutions.
  4. The textbook should include resources for teachers.

12. List the names of the Selection Committee members:  
Ray Turek, Grant Cox, Kateri Kenney
13. Has the Selection Committee carefully vetted this textbook/instructional resource using the established criteria?  
Yes
14. Is there a digital component to this textbook that would collect student information (names, email, date of birth, address, etc.) or house student content?  
We are not opting to purchase the digital component which accompanies the textbook.
15. What other textbooks or instructional resources were reviewed during the selection process?
- Miller, G. Tyler and Scott Spoolman. *Exploring Environmental Science for AP*. 1st ed., Boston, MA: Cengage Learning, 2021.
  - Cunningham, William and Mary Cunningham. *Environmental Science: A Global Concern*. 16th ed., New York, NY: McGraw-Hill Higher Education, 2024
  - Withgott, Jay H. and Matthew Laposata. *Environment: The Science Behind the Stories, AP Edition*. 7th ed., San Francisco, CA: Pearson Education, 2021
16. Was all or part of the textbook or instructional resource piloted by teachers? (Describe the pilot procedure or explain why the textbook was not piloted.)  
The textbook was not piloted. The cost of the textbook makes this impractical.
17. What other school districts in our area or in Connecticut use this textbook or instructional resource?  
Avon  
Brookfield  
East Haven  
Granby  
Greenwich Academy  
Greenwich Country Day School  
Hopkins School  
Lyman Memorial High School (Lebanon)  
Southington
18. Summarize the reasons why this textbook or instructional resource is being recommended to the Board of Education for adoption.  
This book meets all of the selection criteria that were established by the Selection Committee for a new textbook. This book has become the choice for the majority of school districts that are looking for a new APES textbook.

Signature: \_\_\_\_\_  
Proposal Originator

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
Building Administrator

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
District Administrator

Date: \_\_\_\_\_

**April 25, 2024**  
**Board of Education**

BHS Science  
Ray Turek

# Agenda

- Curricula:
  - Environmental Science
  - Forensic Science
  - Physical Science
- AP Environmental Science Textbook
- US-Korean Collaborative Program

# Environmental Science Curriculum

Duration: 1 semester (.5 credits)

Level: College Prep

Grades: 11 & 12

This science elective addresses the global ecosystem and the ways local, federal, and international policies regulate how human beings use natural resources on Earth.

[Environmental Science Curriculum Folder](#)

# Units of Study:

- Introduction to Environmental Science and Populations
- The Living World
- Agriculture and Its Impact on the Environment
- Waste, Energy, and Human Effects on the Environment.

# A Deeper Look Into Unit 3: Agriculture

## ESSENTIAL QUESTIONS

1. What concerns exist in regards to illnesses and toxins stemming from agriculture, and how are they spread?
2. What effects does agriculture have on nearby ecosystems, water supplies, and the environment?
3. How can we best prevent environmental problems from arising from agriculture?

[Unit 3 Link](#)

# Forensic Science Curriculum

Duration: 1 semester (.5 credits)

Level: College Prep

Grades: 11 & 12

Forensic scientists are responsible for analyzing evidence collected at crime scenes by legal officials. Students will process and analyze evidence using techniques grounded in biology, chemistry, and physics.

[Forensic Science Curriculum Folder](#)

# Units of Study:

- Introduction to Forensic Science through the Crime Scene.
- Estimating Post-mortem interval, Entomology, and Osteology
- Biological Evidence: Blood and blood stain patterns, DNA, fingerprinting.
- Non-Biological Evidence: Ballistics, glass, criminal profiling/psychology
- Forensic Toxicology and Chemistry

# A Deeper Look Into Unit 2: Estimating post-mortem interval, Entomology, & Osteology

## ESSENTIAL QUESTIONS

1. What are the ways in which forensic scientists determine the time of death of a victim?
2. How can bones be used to help in the identification of a victim?

[Unit 2 Link](#)

# Physical Science Curriculum

Duration: 1 year (1.0 credits)

Level: College Prep

Grades: 10

This course is designed to be an alternative to the traditional high school chemistry course taken in the sophomore year. The course focuses on the conceptual components of chemistry as well as the Earth and Space Science standards required by the state.

[Physical Science Curriculum Folder](#)

# Units of Study:

## Semester 1:

- Introduction to the Scientific Method
- Atomic Structure
- Chemical Reactions

## Semester 2:

- Carbon Chemistry
- Heat and Energy
- Earth Systems

# A Deeper Look Into Unit 6: Earth Systems

## ESSENTIAL QUESTIONS

1. How can historical global climate evidence be used to make predictions about the future impacts of Earth's systems?
2. Can steps be taken to change Earth's climate?

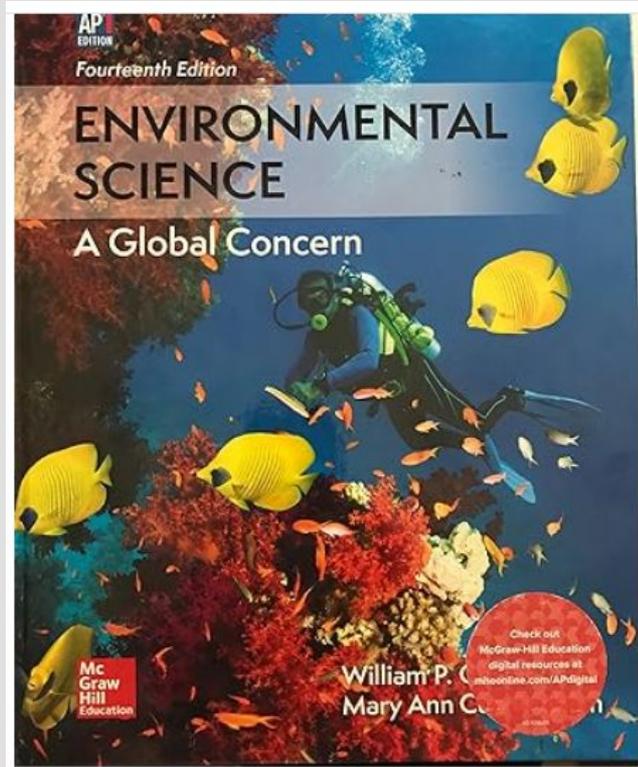
[Unit 6 Link](#)

# AP Environmental Science Textbook



*Environmental Science for the AP Course 4e* by Andrew Friedland and Rick Relyea, 2023

# Why the need?



The previous textbook was purchased in 2017 to meet the needs of our new class.

In 2019 College Board made substantial changes to the APES CED.

| <b>Topic</b>                     | <b>Percent</b> |
|----------------------------------|----------------|
| Earth Systems and Resources      | 10–15%         |
| The Living World                 | 10–15%         |
| Population                       | 10–15%         |
| Land and Water use               | 10–15%         |
| Energy Resources and Consumption | 10–15%         |
| Pollution                        | 25–30%         |
| Global Change                    | 10–15%         |

| <b>Unit</b> | <b>Topic</b>                      | <b>Exam Weighting</b> |
|-------------|-----------------------------------|-----------------------|
| 1           | The Living World: Ecosystems      | 6-8%                  |
| 2           | The Living World: Biodiversity    | 6-8%                  |
| 3           | Populations                       | 10–15%                |
| 4           | Earth Systems and Resources       | 10–15%                |
| 5           | Land and Water Use                | 10–15%                |
| 6           | Energy Resources and Consumption  | 10-15%                |
| 7           | Atmospheric Pollution             | 7-10%                 |
| 8           | Aquatic and Terrestrial Pollution | 7-10%                 |
| 9           | Global Change                     | 15-20%                |

# Why Mr. Cox Really Loves This Book:

- The new proposed textbook aligns 100% with the AP Environmental Science Course and Exam Description (CED). There is no extra information. There is no missing information.
- The textbook asks students to engage in the AP Environmental Science framework practices which include: Concept Explanation, Visual Representations, Text Analysis, Data Analysis, Mathematical Routines, and Environmental Solutions.
- A full complement of teacher focused resources are provided.

# Cost

| Itemized Products              |               |  |         |                               |              |          |              |  |  |
|--------------------------------|---------------|--|---------|-------------------------------|--------------|----------|--------------|--|--|
| ISBN                           | EAN           | Product                                  | Edition | Author                        | Sales Price  | Quantity | Total Price  |  |  |
| 1319409288                     | 9781319409289 | Environmental Science for the AP® Course | 4       | Andrew Friedland; Rick Relyea | USD 153.98   | 40.00    | USD 6,159.20 |  |  |
| <b>Itemized Product Total:</b> |               |  |         |                               | USD 6,159.20 |          |              |  |  |

40 books @ \$153.93 each  
\$6159.20

# US-South Korea Science Collaborative Research and Education Project



2023 Timeline

## The US-Korea Science Research and Education Project

### Collaborative Exchange Partnership Between Students of US and South Korea Schools



In late August 2023 we were invited to join in the collaborative partnership and travel to Korea from December 15th -22nd. -we declined.

# Instead....

Two separate groups of BHS students collaborated on two different projects from October to December.

- **Group 1** Mathematical Modeling for the Analysis of Desalination-Korean Science Research Project Partnership
  - 12 students
  - Experimentation based research
- **Group 2:** Accuracy Analysis of Trend Lines; Using Distribution Plot in Each Time Series
  - 10 students
  - Mathematical modeling based research

# Collaboration

- Both groups met with a paired S. Korea private science school via Zoom on two different occasions.
- Schools shared their interpretation of their assigned project and presented their work.
- Mentors and a moderator helped coordinate the sessions.



# Meeting Presentation

## Mathematical Modeling for the Analysis of Desalination

### INTRODUCTION

Desalination is the process of removing salt and other minerals from seawater to produce fresh water. It is a critical technology for providing water in arid regions and for ensuring water security in the face of climate change.

#### Why Desalination?

Over 97% of the water on Earth is saltwater. As the world's population grows, the demand for fresh water increases, leading to significant environmental and social challenges. Desalination offers a potential solution to these challenges.

#### Positives of Solar

1. **Renewable Energy Source:** Solar energy is a clean, renewable energy source that does not produce greenhouse gas emissions during operation.

2. **Low Operating Costs:** Once the initial infrastructure is in place, the operating costs for solar desalination are significantly lower than those of fossil fuel-based desalination.

#### Negatives of Solar

1. **High Initial Investment:** The cost of solar panels and associated infrastructure is still relatively high, making the initial investment for solar desalination projects substantial.

2. **Intermittent Energy Source:** Solar energy is only available during daylight hours, which can limit the capacity of solar desalination systems to meet continuous demand.

3. **Land Use Requirements:** Large-scale solar desalination projects require significant land area, which can be a challenge in densely populated or ecologically sensitive regions.

4. **Water Loss:** The evaporation process used in solar desalination can result in significant water loss, which may be a concern in arid regions.



#### Positives of Boiling

1. **Simple Technology:** Boiling is a straightforward and well-understood process that can be implemented using simple equipment.

2. **Low Energy Consumption:** Boiling requires less energy than other desalination methods, such as reverse osmosis.

3. **Scalability:** Boiling desalination can be scaled up or down to meet the needs of different communities.

#### Negatives of Boiling

1. **High Energy Consumption:** Boiling requires a significant amount of energy, which can be a major cost factor.

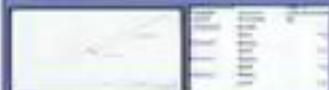
2. **Water Loss:** The evaporation process used in boiling desalination can result in significant water loss.

3. **High Salinity:** The brine produced from boiling desalination is highly concentrated and can be a major environmental concern.



### SOLAR

The solar desalination process involves using solar energy to heat seawater, causing it to evaporate. The resulting steam is then condensed to produce fresh water. This process is a form of distillation and is often used in arid regions where solar energy is abundant.



The graph illustrates the linear relationship between solar radiation and desalination output. As solar radiation increases, the amount of fresh water produced also increases proportionally.

### Boiling

The boiling desalination process involves heating seawater to its boiling point, causing it to evaporate. The resulting steam is then condensed to produce fresh water. This process is a form of distillation and is often used in arid regions where solar energy is abundant.



The graph illustrates the linear relationship between boiling temperature and desalination output. As the boiling temperature increases, the amount of fresh water produced also increases proportionally.

### CONCLUSION

The research conducted in this project has shown that both solar and boiling desalination are viable options for producing fresh water. However, solar desalination offers a more sustainable and cost-effective solution in the long run.

**Conclusion from Solar Investigation:** The investigation into solar desalination revealed that it is a promising technology for producing fresh water in arid regions. The use of solar energy as a power source is clean, renewable, and significantly reduces the operational costs of the desalination process.

**Conclusion from Investigation by Boiling:** The investigation into boiling desalination showed that it is a simple and effective method for producing fresh water. However, the high energy consumption and water loss associated with boiling make it a less sustainable option compared to solar desalination.

#### Action Plan

Based on the findings of this project, the following action plan is recommended: 1. Invest in solar desalination technology for large-scale water production. 2. Continue to research and optimize the efficiency of solar desalination systems. 3. Explore the use of solar energy in other desalination processes to further reduce costs and improve sustainability.

**What would we do differently in the future?**

In the future, we would focus on improving the efficiency of solar desalination systems and exploring the use of solar energy in other desalination processes. We would also continue to research the environmental impacts of desalination and work to minimize any negative effects.

#### Final Notes

This project has provided valuable insights into the challenges and opportunities of desalination. We hope that the findings and recommendations presented here will help inform future research and policy decisions related to water security and sustainable development.

#### Water Cycle

The water cycle is a continuous process that involves the evaporation of water from the surface of the Earth, the condensation of water vapor into clouds, and the precipitation of water as rain or snow. This cycle is essential for maintaining the Earth's climate and supporting life.



# Plan for 2024

- We have already committed to two teams for the 2024 school year.
  - We will have input into our topic.
  - Timeline will be moved up and students will start earlier.
- We currently have no plans to travel to S. Korea however perhaps down the road it may be something we would like to consider.



# Bethel High School

DAVID W. DEAKIN EDUCATIONAL PARK  
300 WHITTLESEY DRIVE · BETHEL, CONNECTICUT 06801  
P 203.794.8600 F 203.778.7448



Christopher M. Troetti  
*Principal*

Gary M. Lawlor  
*Associate Principal*

Mari Lerz  
*Assistant Principal*

To: Dr. Carver

From: Bethel High School Administration

RE: Graduation Date

4/5/2024

Dear Dr. Carver,

The Bethel High School Administration recommends that the graduation ceremony be held on Monday, June 10, 2024 on Ralph DeSantis Field at 6 pm (rain date 6/11/24).

Respectfully submitted,

Christopher Troetti

Gary Lawlor

Mari Lerz