

Agenda

- I. **Call to Order / WebEx Login**
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This meeting is being conducted as a hybrid meeting consistent with Connecticut Public Act 22-3. The public may attend in person at the location indicated above. The public may also attend electronically via WebEx via the link provided above.
- II. **Public Comment - *The Board welcomes public participation. We ask that speakers please limit their comments to three minutes. Please be aware that the Board will not respond to any comments made during the public comment period, except to clarify issues, but we will take into consideration your comments, and when appropriate, district administration will follow-up with you at a later point in time. Please feel free to submit Public Comments via email to mdegennaro@woodbridgeps.org***
- III. **Overview of Curriculum Development Process**
- IV. **Summer Curriculum Plans**
- V. **Adjourn**



UNDERSTANDING BY DESIGN® FRAMEWORK

BY JAY MCTIGHE AND
GRANT WIGGINS

INTRODUCTION: WHAT IS UbD™ FRAMEWORK?

The Understanding by Design® framework (UbD™ framework) offers a planning process and structure to guide curriculum, assessment, and instruction. Its two key ideas are contained in the title: 1) focus on teaching and assessing for understanding and learning transfer, and 2) design curriculum “backward” from those ends.

The UbD framework is based on seven key tenets:

1. Learning is enhanced when teachers think purposefully about curricular planning. The UbD framework helps this process without offering a rigid process or prescriptive recipe.
2. The UbD framework helps focus curriculum and teaching on the development and deepening of student understanding and transfer of learning (i.e., the ability to effectively use content knowledge and skill).
3. Understanding is revealed when students autonomously make sense of and transfer their learning through authentic performance. Six facets of understanding—the capacity to explain, interpret, apply, shift perspective, empathize, and self-assess—can serve as indicators of understanding.
4. Effective curriculum is planned backward from long-term, desired results through a three-stage design process (Desired Results, Evidence, and Learning Plan). This process helps avoid the common problems of treating the textbook as the curriculum rather than a resource, and activity-oriented teaching in which no clear priorities and purposes are apparent.
5. Teachers are coaches of understanding, not mere purveyors of content knowledge, skill, or activity. They focus on ensuring that learning happens, not just teaching (and assuming that what was taught was learned); they always aim and check for successful meaning making and transfer by the learner.



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6. Regularly reviewing units and curriculum against design standards enhances curricular quality and effectiveness, and provides engaging and professional discussions.
7. The UbD framework reflects a continual improvement approach to student achievement and teacher craft. The results of our designs—student performance—inform needed adjustments in curriculum as well as instruction so that student learning is maximized.

The Understanding by Design framework is guided by the confluence of evidence from two streams—theoretical research in cognitive psychology, and results of student achievement studies. A summary of the key research that undergirds UbD framework can be found at www.ascd.org under Research A Topic.

The Three Stages of Backward Design

The UbD framework offers a three-stage backward design process for curriculum planning, and includes a template and set of design tools that embody the process. A key concept in UbD framework is alignment (i.e., all three stages must clearly align not only to standards, but also to one another). In other words, the Stage 1 content and understanding must be what is assessed in Stage 2 and taught in Stage 3.

Stage 1—Identify Desired Results

Key Questions: What should students know, understand, and be able to do? What is the ultimate transfer we seek as a result of this unit? What enduring understandings are desired? What essential questions will be explored in-depth and provide focus to all learning?

In the first stage of backward design, we consider our goals, examine established content standards (national, state, province, and district), and review curriculum expectations. Because there is typically more content than can reasonably be addressed within the available time, teachers are obliged to make choices. This first stage in the design process calls for clarity about priorities.

Learning priorities are established by long-term performance goals—what it is we want students, in the end, to be able to do with what they have learned. The bottom-line goal of education is transfer. The point of school is not to simply excel in each class, but to be able to use one's learning in other settings. Accordingly,



Stage 1 focuses on “transfer of learning.” Essential companion questions are used to engage learners in thoughtful “meaning making” to help them develop and deepen their understanding of important ideas and processes that support such transfer. Figure 1 contains sample transfer goals and Figure 2 shows sample understandings and essential questions.

FIGURE 1—SAMPLE TRANSFER GOALS

Discipline/Subject/Skill	Transfer Goals
Mathematics	<ul style="list-style-type: none"> • Apply mathematical knowledge, skill, and reasoning to solve real-world problems.
Writing	<ul style="list-style-type: none"> • Effectively write for various audiences to explain (narrative, expository), entertain (creative), persuade (persuasive), and help others perform a task (technical).
History	<ul style="list-style-type: none"> • Apply lessons of the past (historical patterns) to current and future events and issues. • Critically appraise historical claims.
Arts	<ul style="list-style-type: none"> • Create and perform an original work in a selected medium to express ideas or evoke mood and emotion.





FIGURE 2—SAMPLE UNDERSTANDINGS AND ESSENTIAL QUESTIONS

Understandings	Essential Questions
Great literature explores universal themes of human existence and can reveal truths through fiction.	How can stories from other places and times relate to our current lives?
Quantitative data can be collected, organized, and displayed in a variety of ways. Mathematical ideas can be represented numerically, graphically, or symbolically.	<p>What's the best way of showing (or representing) _____?</p> <p>In what other way(s) can this be represented?</p>
The geography, climate, and natural resources of a region influence the culture, economy, and lifestyle of its inhabitants.	How does where we live influence how we live?
The relationship between the arts and culture is mutually dependent; culture affects the arts, and the arts reflect and preserve culture.	In what ways do the arts reflect as well as shape culture?

Important knowledge and skill objectives, targeted by established standards, are also identified in Stage 1. An important point in the UbD framework is to recognize that factual knowledge and skills are not taught for their own sake, but as a means to larger ends. Acquisition of content is a means, in the service of meaning making and transfer. Ultimately, teaching should equip learners to be able to use or transfer their learning (i.e., meaningful performance with content). This is the result we always want to keep in mind.

Stage 2—Determine Assessment Evidence

Key Questions: How will we know if students have achieved the desired results? What will we accept as evidence of student understanding and their ability to use (transfer) their learning in new situations? How will we evaluate student performance in fair and consistent ways?

Backward design encourages teachers and curriculum planners to first think like assessors before designing specific units and lessons. The assessment evidence we need reflects the desired results identified in Stage 1. Thus, we consider in advance the assessment evidence needed to document and validate that the targeted learning has been achieved. Doing so invariably sharpens and focuses teaching.

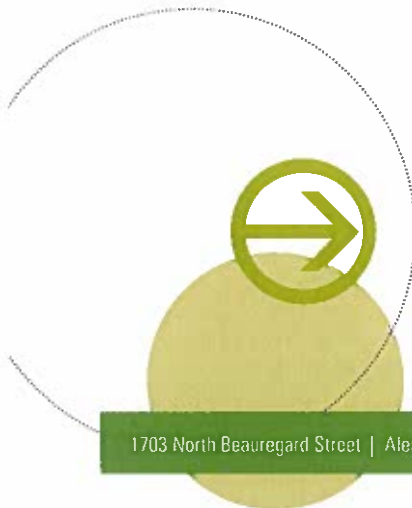
In Stage 2, we distinguish between two broad types of assessment—performance tasks and other evidence. The performance tasks ask students to apply their learning to a new and authentic situation as means of assessing their understanding and ability to transfer their learning. In the UbD framework, we have identified six facets of understanding for assessment purposes. When someone truly understands, they

- Can **explain** concepts, principles, and processes by putting it their own words, teaching it to others, justifying their answers, and showing their reasoning.
- Can **interpret** by making sense of data, text, and experience through images, analogies, stories, and models.

- Can **apply** by effectively using and adapting what they know in new and complex contexts.
- Demonstrate **perspective** by seeing the big picture and recognizing different points of view.
- Display **empathy** by perceiving sensitively and walking in someone else's shoes.
- Have **self-knowledge** by showing meta-cognitive awareness, using productive habits of mind, and reflecting on the meaning of the learning and experience.

Keep the following two points in mind when assessing understanding through the facets:

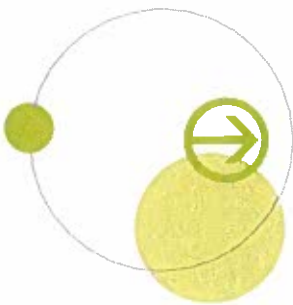
1. All six facets of understanding need not be used all of the time in assessment. In mathematics, application, interpretation, and explanation are the most natural, whereas in social studies, empathy and perspective may be added when appropriate.
2. Performance tasks based on one or more facets are not intended for use in daily lessons. Rather, these tasks should be seen as culminating performances for a unit of study. Daily lessons develop the related knowledge and skills needed for the understanding performances, just as practices in athletics prepare teams for the upcoming game.



In addition to performance tasks, Stage 2 includes other evidence, such as traditional quizzes, tests, observations, and work samples to round out the assessment picture to determine what students know and can do. A key idea in backward design has to do with alignment. In other words, are we assessing everything that we are trying to achieve (in Stage 1), or only those things that are easiest to test and grade? Is anything important slipping through the cracks because it is not being assessed? Checking the alignment between Stages 1 and 2 helps ensure that all important goals are appropriately assessed, resulting in a more coherent and focused unit plan.

information or modeling basic skills for acquisition without extending the lessons to help students make meaning or transfer the learning.

Teaching for understanding requires that students be given numerous opportunities to draw inferences and make generalizations for themselves (with teacher support). Understanding cannot simply be told; the learner has to actively construct meaning (or misconceptions and forgetfulness will ensue). Teaching for transfer means that learners are given opportunities to apply their learning to new situations and receive timely feedback on their performance to help them improve. Thus, the teacher's role expands from solely a "sage on the stage" to a facilitator of meaning making and a coach giving feedback and advice about how to use content effectively.



Stage 3—Plan Learning Experiences and Instruction

Key Questions: How will we support learners as they come to understand important ideas and processes? How will we prepare them to autonomously transfer their learning? What enabling knowledge and skills will students need to perform effectively and achieve desired results? What activities, sequence, and resources are best suited to accomplish our goals?

In Stage 3 of backward design, teachers plan the most appropriate lessons and learning activities to address the three different types of goals identified in Stage 1: transfer, meaning making, and acquisition (T, M, and A). We suggest that teachers code the various events in their learning plan with the letters T, M, and A to ensure that all three goals are addressed in instruction. Too often, teaching focuses primarily on presenting

K–12 Universal Curricula Design Principles

A Handbook for Evaluation, Renewal,
and Development of District Curricula



Connecticut State Department of Education

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Overview

It is imperative that all students have access to high quality, high-impact teaching and learning aligned to the content standards adopted by the Connecticut Board of Education (Board) to ensure Connecticut's students have access to equitable educational opportunities and succeed within a culture of high expectations. Local and regional boards of education have the jurisdiction to develop and implement educational goals that establish specific expectations for their students in terms of skills, knowledge, and competence (C.G.S., Sec. 10-220). A variety of content areas and courses are mandated to be included in a district's program of instruction (C.G.S. Sec. 10-16b) and for students to earn high school credits, courses must align to the [content standards adopted by the Board](#) (C.G.S., Sec. 10-221).

The Connecticut K–12 Curricula Design Principles Handbook provides a common language and structure to assist in curricula design to increase consistency within and among instructional programs, districts, schools, grade levels, and content areas statewide. The systematic and intentional process outlined in the handbook offers Connecticut stakeholders opportunities to refine their application of the curricula development process and support curricula evaluation and renewal. Each phase of development contains key considerations and questions to ask yourself as an instructional designer.

Curricula Defined

Curriculum is different from state and national academic standards in that standards define what students are expected to learn by subject and grade. The curriculum combines how teachers will teach to develop skills, content knowledge and assess students' ability to transfer learning. Curriculum is the central roadmap for communicating essential learning outcomes for mastery by the end of a grade or grade band. The structure and organization of curriculum is guided by a curriculum framework that must include standards aligned concepts, skills, high impact instructional methods, high quality materials and multiple means of assessment aligned to standards.

Core Values

Equitable and Inclusive Curriculum

The CSDE believes all learners should have access to on-grade-level instruction daily. To ensure equitable access to curricular resources, the CSDE is spotlighting the position statement on [Culturally Responsive Education](#) and [Universal Design Learning \(UDL\) Principles](#) as lead guidelines for analyzing, planning, designing, and developing curricula to intentionally reduce barriers to learning and access to rigorous curricula. By engaging in these phases with the UDL Principles, all learners will be guaranteed to work and respond in a format that meets their needs for learning and expression.

The UDL framework can support teachers and curriculum leaders to make decisions on curricula development that incorporate each of the CSDE Design Principles.

It is important for curricular resources to be culturally responsive and flexible to adjust to the needs and interests of all learners. Adopting an understanding of curriculum through the culturally relevant and UDL lens places the learner at the center of the teaching and learning process. When teachers develop a learning environment that is relevant to and reflective of their students' social, cultural, and linguistic experience there is an intentional connection to their culturally- and community-based knowledge to the classroom learning experiences. This creates an environment of reciprocal respect and collaboration.

Opportunities for Mastery

The CSDE believes in creating expectations for Mastery-Based Learning (MBL) and teaching. The vision for this work is to ensure all students have access to multiple and flexible pathways for learning that will prepare them for college, career, and civic life, including mastery-based systems of accountability for student growth.

MBL places emphasis on rigorous college and career learning competencies and quality curricula and instruction drawn from state graduation requirements and state content standards. Learning will emphasize authentic experiences and application of critical knowledge that students engage in at school, in the community or online. A Mastery-Based approach can begin with intentional learning expectations beginning in kindergarten through grade 12.

MBL requires schools to create powerful learning experiences for every student regardless of his/her past learning history and allows students to demonstrate mastery through a body of evidence. The CSDE K–12 Curricula Design Principles Handbook provides the curricula design templates to support the intentional opportunities for personal, mastery-based learning.

Culture of Inquiry

The CSDE believes learners are at the center of curricula planning and design. This requires a community culture that empowers all learners to ask questions, share their stories and voice what they need to become agents of change. By creating a community of learners and networks, educators and learners partner in the ongoing analysis, planning, and development of curricula resources that match their strength, passion, curiosity, need and diversity.

Design Principles

The Connecticut K–12 Curricula Design Principles provide guidance and highlight important considerations for districts to create a collaborative curricula-development process committed to designing curricula that embodies these six core principles. These principles ensure daily opportunities to engage students with grade-level learning opportunities to accelerate learning:

Focused

Builds upon and connects to prior knowledge providing aligned intentional learning targets focused on the educational standards and describing what all students should know/understand/do to achieve future success in college, career, and civic-life.



Relevant

Engages students in reality-based experiences, explorations, inquiry, and models with multiple and varied opportunities to apply learning.



Flexible

Offers inherent flexibility, allowing for anytime/anywhere personalized, student-centered learning, and incorporating opportunities for voice and choice. Makes strategic use of both in-person and remote learning utilizing a blended approach to teaching and learning.



Rigorous

Communicates high expectations and supports learning for historically marginalized students and provides high quality, high impact learning opportunities in all learning models (e.g., synchronous, asynchronous, in-person, hybrid, or remote).



Coherent

Connects and links learner goals, learner framework, vision or portrait of a learner/graduate. Answers the questions of how does this unit build upon and connect to prior knowledge, and how does it prepare the student for future learning.



Diverse, Equitable, and Inclusive

Includes opportunities to value and relate content to students' cultures to celebrate the diversity of topics, students, cultures and groups so that students can take perspective and develop a depth of understanding of the events presented. Teachers embrace difficult conversations, provide equal access, and ensure learning is culturally responsive and inclusive.



Phases of Curricula Development

The very core of instruction includes the teacher and student interrelating with the content. To increase student learning, one must improve the level and complexity of content, grow the knowledge and skills of the teacher, and elevate student engagement. Content improvement begins with the development of quality curricula. This development, backed by evidence-based practices is a multi-step, iterative design process. Development of curricula progresses from evaluating the existing teaching and learning, to designing improved teaching and learning, to implementing revised teaching and learning, and back to evaluating the revised teaching and learning. Many school districts carry out this process in a planned and systematic manner that includes the four phases listed below:

Phase
1

Phase 1

Analysis and Planning

- a. Convening a Curricula Design and Development Team
- b. Identifying Key Issues and Trends in the Specific Discipline to Prioritize Content
- c. Assessing Assets, Strengths, Needs, Issues, and gaps

Phase
2

Phase 2

Articulating and Developing

- a. Articulating a K–12 Program Philosophy
- b. Defining K–12 Program Learning Goals and Desired Results
- c. Developing and Sequencing K–12 Grade-Level Course Learning Targets
- d. Developing and/or identifying resource materials to Assist with Curricula Implementation
- e. Developing and/or Identifying Assessment Items and Instruments to Measure Student Progress

Phase
3

Phase 3

Implementing

- a. Putting the New Curricula into Practice
- b. Providing Professional Learning and Support
- c. Monitoring implementation at District, School, and Classroom

Phase
4

Phase 4

Evaluating

- a. Assessing Fidelity of Implementation
- b. Determining the Success and Impact of the Curricula
- c. Renewing/Revising Curricula

Phase

1

Phase 1: Analysis and Planning**Convening a Curricula Development Team**

The first step of the curricula development process is to convene a curricula development team. Such a team, consisting primarily of teachers who represent the various schools and grade levels in a district, administrators, members of the public (e.g., parents, business and industry representatives), and perhaps students, becomes the driving force for curricula change and the long-term process of implementing the curricula. Please note that each local and regional board of education must have a school district curricula team that recommends, develops, reviews, and approves all curricula for the local or regional school district (C.G.S., Sec. 10-220[e]).

Identifying Key Issues and Trends in the Specific Discipline

The team should engage in a study of evidence-based practices and current research that supports effective teaching and learning strategies to meet the needs of all students (i.e., including special education students, Multilingual learners/English learners [MLs/ELs], and academically fragile students). Team members should also be provided with recent district Next Generation Accountability data and be familiar with the curricula, instructional materials, and assessments currently utilized.

The CSDE [AccelerateCT](#) and companion playbooks highlight districts prioritizing common issues and problems through innovative approaches, ideas, and strategies that are producing successful outcomes. The team can connect with fellow districts and borrow, adapt, and put to use these proven models in their own districts and schools.

As teams engage in this process, members are likely to identify many of the following issues and trends that will need to be addressed as the curricula development process moves forward:

- meeting the needs of all students (i.e., including special education students, MLs/ELs, and academically fragile students);
- equity-based learning theory and other cognitive psychology findings on how students learn;
- what determines developmental readiness or developmental appropriateness;
- the current expectations of the field;
- the knowledge of and readiness for change on the part of teachers;
- the availability of resources;
- the role and availability of information and technology resources;
- scheduling challenges;
- methods and purposes of assessments;
- learning models (in-person, virtual, remote); and
- professional learning.

Assessing Assets, Needs, and Issues

Asset-based approaches to help students see and build on their own strengths before, during, and after the implementation of curricula upholds the commitment to creating a learner-centered environment. Curricula development is a process by which meeting student needs leads to improvement of student learning. Curricula developers should consider gathering as much information as possible, including: national and state standards, district's portrait of a graduate, desired outcomes or expectations of a high-quality curricula, the role of assessment, the status of student achievement, and actual program content. The information can highlight the concerns and attitudes of teachers, administrators, parents, and students. The information can include samples of assessments, lessons from teachers, assignments, scores on state standardized tests, resources currently used, student perception, and feedback from parents.

Armed with a common set of understandings that arise from the identification of issues and trends, a curricula development team is wise to gather information to best ascertain the perceptions, concerns, and desires of each of the stakeholders in the process. By examining these data carefully, key issues will emerge that will influence the curricula design. For example:

- teachers may be dissatisfied with older content and techniques in light of recent research;
- teachers may not have materials or may not know how to use available materials to enhance understandings;
- teachers may want to integrate locally identified digital tools and resources to enhance learning;
- teachers and others may wish to relate the content of the program more closely to contemporary problems and issues;
- teachers may be looking for ways to increase the amount of interdisciplinary work in which students are engaged;
- students may express a need for different and/or enriched curricular opportunities;
- Students may request opportunities for problem – based projects;
- parents and others may have ideas, questions or concerns about implementation; and/or
- test scores may be declining or lower than expected in some or all disciplines.

An effective curricula development process incorporates gathering information to guide the team. The information, commonly gathered through surveys, discussions, and assessment data, most frequently includes:

- teacher analysis of the present curricula to identify strengths, weaknesses, omissions and problems;
- sample lessons that illustrate curricula implementation;
- sample assessments that illustrate the implementation of the curricula;
- teachers at each grade level identifying what they perceive to be the most serious issues within the curricula;
- a detailed analysis of state and local data, including assessment information, grade-level criterion-referenced test data and course final examination results;
- meetings with teachers, guidance counselors, and administrators to generate suggestions for change and improvement; and
- parents and other community members including invitations to community meetings to ascertain their concerns and expectations for the program.

There are several questions that the curricula team should be including in their research, such as:

- How will the curricula offer personalization opportunities to meet the needs of all children, including children with disabilities and ELs?
- How will the curricula be culturally, ethnically, and linguistically responsive?
- How will the curricula address the social-emotional needs of students?

The data collected in conjunction with information obtained from research and various resources become the basis upon which the entire written curricula — from philosophy to goals to assessment — is then built.

**Phase
2****Phase 2: Articulating and Developing Overall K–12 Scope and Sequence**

Districts create a variety of curricula teams in addition to the legislated school district curricula team. These teams are often content-focused but work together to create a coherent framework of courses/programs. A curricula team should create an overarching curricula philosophy, learning goals, desired results, scope, and sequence. Teams should work across disciplines to include interdisciplinary connections as well as opportunities for application of learning.

Articulating a K–12 Curricula Philosophy

The following fundamental questions guide the overarching philosophy of the curricula:

- “Why learn (specific discipline)?”
- “Upon what guiding principles is our curricula built?”
- “What are our core beliefs about teaching and learning in (specific discipline)?”
- “What are the essential questions?”
- “How will we use assessment to improve the curricula, teacher knowledge and skills, and student learning?”
- “How will we adapt the curricula to be utilized in various teaching situations (e.g., in-person, online, blended)?”

As such, the curricula philosophy provides a unifying framework that justifies and gives direction to content-based instruction. After having studied curricula trends and assessed the current program, curricula developers should be ready to construct a draft philosophy to guide the K–12 curricula. Such a philosophy or set of beliefs should be more than just “what we think should be happening,” but rather “what our curricula is actually striving to reflect.” It is important that this work aligns to the district’s vision of the graduate.

An effective philosophy statement has the following characteristics:

- **Accuracy**
 - The philosophy represents supportable claims.
 - The philosophy states an educationally appropriate case for the role of (specific content) in the K–12 curricula and its importance in the education for all students.
- **Linkages**
 - The curricula philosophy is consistent with the district’s philosophy of education.
 - The philosophy provides a sound foundation for curricula goals and learning targets.
 - The district’s teachers are sincerely committed to each belief outlined in the philosophy.
- **Breadth and Depth**
 - The philosophy aligns with evidence-based pedagogical practices.
 - The philosophy provides a clear and compelling justification for the curricula.
- **Usefulness**
 - The philosophy is clear and can be understood by parents and other non-educators.

Defining K–12 Curricula Learning Goals and Desired Results

The purpose of the K–12 curricula philosophy is to describe the fundamental beliefs and inform the process of instruction. The curricula delineates K–12 curricula goals as well as grade-level and course goals that address the key cognitive and affective content expectations/results for the curricula. Curricula goals:

- are open-ended, to provide for continuous growth in K–12 and into adult life;
- Grow logically out of and clearly linked to the philosophy of the specific content and the linkage is clear;
- are comprehensive enough to provide the basis for a quality K–12 curricula for all learners at all places on the learning continuum;
- include each of the outcomes suggested by the philosophy;
- are realistic and manageable leading to the development of one or more grade level and course learning targets; and
- align to the district's portrait of a graduate.

Developing and Sequencing K–12 Grade-Level and Course Learning Targets

If the philosophy and goals of curricula represent the guiding principles of the curricula, then the grade-level and course learning targets represent the core of the curricula. Learning targets are concrete goals written in student-friendly language that clearly describe what students will learn and be able to do by the end of a class, unit, project, or course. The [content standards adopted by the Board](#) state the specific grade-level expectations as to what each student must know and be able to do by the end of each grade. The team should consider several key questions to identify, select, write, and sequence learning targets:

- Is the target measurable and how will it be measured?
- Is the target sufficiently specific to give students a clear understanding of what they should be able to do?
- Is the target compatible with the goals and philosophy of the curricula and the real, emerging needs of students?
- Is the target realistic and attainable by students?
- Are appropriate materials and other resources available to make the target achievable?

Curricula teams create the overall K–12 scope and sequence document to show student learning progressions across grade-levels and courses. They assure smooth transitions and curricular coordination among grades and courses, particularly between elementary schools and middle schools and between middle schools and high schools. These learning targets guide the deeper dive into the creation of specific grade and course level documents.

Course Information Overview, Unit Development, and Lesson Development

The CSDE has created a Universal Curricula Template to guide curricula teams in the creation of course information overviews, units, and lessons ([Appendix A](#)). The Template is color-coded to show alignment to the six curricula design principles, in that all curricula must:

- **be aligned and focused** on the educational standards. Provides intentional learning targets describing what all students should know, understand, and be able to do to achieve future success in college, career, and civic life (orange).
- **value diversity** and include students engaging in real-world culturally relevant experiences, explorations, inquiry, and models (blue).
- **provide flexibility** for individualization for teachers and students (purple).
- **challenge all learners and communicates high expectations** and supports learning for historically marginalized students (yellow).
- **make explicit connections and links** between different subjects/concepts/experiences and the district learner goals, framework, vision or portrait of a learner/graduate (red).

The Template ([Appendix A](#)) provides a common framework for curricula teams as they design curricula, assessments, and instruction.

Identifying Resource Materials to Assist with Curricula Implementation

An effective curricula includes instructional resources to help answer the question, “What instructional materials are available to help me meet a particular standard, learning target, or set of learning targets?” These materials include a variety of resources and technology. Another question that must be addressed by curricula teams pertains to modifying lessons so that teaching and learning can occur not only in-person but also at a distance or online if necessary, “How will instruction be modified to accommodate learning at a distance scenarios (e.g., blended learning, online learning)?”

Developing and/or Identifying Assessment Items and Instruments to Measure Student Progress

Various types of assessment guide teaching and learning. There are two types of assessment: formative and summative. Summative assessments are the culminating evaluation of student performance against a set of grade-appropriate standards. Formative assessment is a process used to provide feedback to teachers and students during instruction throughout the year. This process is not a single test, but a series of effective teaching practices that assist teachers in adjusting ongoing teaching and learning to improve students’ achievement and mastering grade-level learning targets. Formative assessment includes clarifying the purpose of the learning, providing exemplars so students know what good work looks like, using activities that engage students, and eliciting evidence of their learning. During the formative assessment process, teachers regularly provide feedback that helps students know what they need to do to continue learning, encouraging students to serve as learning resources for one another, and increasing students’ ownership of learning.

The statewide mastery examinations are summative and serve as important indicators of student achievement and progress, but they should not drive instruction. They are designed for broad purposes, such as accountability, reporting, and program evaluation. They are not intended to support day-to-day classroom instruction.

The unique needs and strengths of these learners must be considered in the planning of both assessment and instruction, including the provision of supports, accommodations, and modifications as required in a student’s Individualized Education Program (IEP), Section 504 plan, or other intervention/learning plan. There is no single assessment that meets the needs of identifying what each student knows and is able to do. Thus, a variety of formative and summative assessment practices must be incorporated into the curricula to assist in answering, “How will I know that my students know and are able to do what is expected of them?”

As assessment drives instruction, it is imperative curricula teams identify and create an assessment process that focuses instruction. The [CSDE Sensible Assessment Practices for 2020-21 and Beyond](#) offers guidance to educators and curricula developers on assessment practices.

Phase 3

Phase 3: Implementing

Putting the New Curricula into Practice

Too often, traditional practice includes sending a team away for several after-school meetings and two weeks of summer writing as prelude to a back-to-school unveiling and distribution of the updated or revised curricula. The process envisioned here entails a much more in-depth and systematic approach to both development and implementation. Instead of assuming that the process ends with the publication of new curricula, an effective curricula team continues to oversee the implementation, updating, and evaluation of the curricula.

Providing Professional Learning and Support

It is important to remember that any innovation introduced into a system — including the new curricula — requires time and support to be fully implemented. Districts and schools must invest in providing professional learning and supports to teachers to develop the knowledge and skills regarding the content and ensure fidelity to the curricula. Teachers need opportunities to become aware of the standards and the new curricula. Teachers need at least two years to implement the new curricula and new resources in their classrooms. It is critical that the curricula development team and district/school administrators are aware of this process and are available to nurture it.

**Phase
4****Phase 4: Evaluating****Monitoring Fidelity of Implementation**

There are varieties of ways in which curricula implementation can be monitored including a review of student work, team learning walks, instructional observations, and coaching conversations. The CSDE has developed various learning walk documents to assist districts and schools in specific “look-fors” that align to standards and evidence-based teaching practices. The purpose of walkthroughs is to assist a team of district and school leaders and educators in gaining a snapshot of the teaching and learning occurring on a certain day, at a certain time, across certain classrooms. Walkthroughs do not determine if a certain program is being implemented effectively or serve as a means of evaluating individual teachers, but rather to assist districts and schools in analyzing teaching practices and learning tasks to increase the inclusion of evidence-based practices that have shown the highest impact in successfully teaching students. Additionally, walkthroughs provide leadership and staff the opportunity to collaborate through shared experiences regarding evidence-based practices. The resulting insights can help clarify and focus the work that is needed to help all students achieve at their fullest potential.

The list below connects to resources identified by the CSDE Academic Office as evidence-based best practices to support districts monitoring the fidelity of curricula implementation:

- [The EQuIP Student Work Protocol](#)
- [CSDE K-2 Literacy Learning Walk Form](#)
- [Math Walkthrough Tool](#)
- [CSDE NGSS Walk-thru Observation Checklist/Comment Form](#)

Determining the Success and Impact of the Curricula

The curricula development cycle ends and then begins again with a careful evaluation of the effectiveness and impact of the curricula. Using surveys, focused discussions, and meetings like those described previously, a curricula development team needs to periodically gather data on perceptions of curricula strengths, weaknesses, needs, and resources that do not seem to be working effectively. This information should be gathered from data that represent overall student performance that is linked closely to daily instruction. Teams of teachers responsible for the specific content could accomplish this by sharing samples of assessments, performance tasks, student work, lessons, and instructional practices related to the curricula. This detailed review and analysis of quantitative and qualitative information on the curricula’s impact and on people’s perceptions of its strengths and weaknesses forms the foundation for the next round of curricula development and improvement. Additionally, these data can drive professional learning and assist in providing teachers with support.

The list below connects to resources identified by the CSDE Academic Office as evidence-based best practices to support districts in determining the success and impact of local curricula:

- [EQuIP E-Learning Modules](#)
- [The EQuIP Student Work Protocol](#)
- [EQuIP Student Work Annotation Guide](#)

Renewing/Revising the Curricula

One of the most common methods of periodically renewing or updating curricula is through grade-level meetings designed to share materials, activities, units, assessments and student work that support the achievement of the curricula goals that were unknown or unavailable when the guide was first developed. These approaches are invaluable professional learning opportunities wherein teachers assume ownership of the curricula they are responsible for implementing. In this way, the guide becomes a growing resource for more effective curricula implementation.

The list below connects to resources identified by the CSDE Academic Office as evidence-based best practices to support districts in the curricula renewal and revision cycle:

- [EQuIP Mathematics Rubric](#)
- [EQuIP K-2 ELA Literacy Rubric](#)
- [EQuIP ELA Rubric](#)
- [EQuIP Rubric for Science](#)

Appendixes

The following appendixes are included in this document to assist districts and schools in the curricula process:

Appendix A: Universal Curricula Template

Appendix A includes three templates to support the evaluation, design and development of curricula materials.

- Part I: Course Information Overview
- Part II: Unit Development
- Part III: Lesson Plan/Lesson Sequence Development

The Universal Curricula Template assists districts and schools in approaching the creation of curricula through an equity lens and ensuring all learners engage in focused, rigorous, culturally relevant grade-level content. The Template (Parts I, II, and III) is **color-coded** to show adherence to the core principles:

- Defining intellectual and cognitive rigor with alignment to educational standards (**yellow** and **orange**);
- Clarification of what all students should know, understand, and be able to do to achieve future success in college, career, and civic life (**orange**);
- Opportunities for interdisciplinary connections (**yellow**);
- Engagement in real-world, culturally relevant experiences, explorations, and models (**blue**);
- Integrates materials, resources and technology with concepts and learner goals for coherence (**pink**);
- Providing flexibility for individualization for teachers and students and opportunities for UDL (**purple**);
- Support of anytime/anywhere personalized, student-centered learning; and
- Communicates expectations and design principles for supporting learning for historically marginalized students (**blue**).

Appendix B: Glossary

Appendix B defines curricula-related words used in the Template and throughout this document.

Appendix C: References

Appendix D: CSDE Contacts by Content

Appendix A: Universal Curricula Template

Part I: Course Information Overview

Course Title:	Content Area:	Grade Level:
Course Description: <i>Questions that should be answered in a course description include:</i>		
Aligned Core Resources:		
Additional Course Information: <i>Big ideas addressed in the course</i>	Habits of Mind/SEIH/Transferable Skills Addressed in the Course: <i>The skills you want students to master in their journey to success in college, career, and civic life (e.g., initiative, responsibility, perseverance, collaboration, empathy, respect).</i>	

*Adapted from Naugatuck Public Schools Curriculum Writing Template

Part II: Unit Development

Refer to [the glossary](#) on page 17 for a definition of each component of the template.

Unit Overview/Summary — FOCUS:


Unit Number:

Title of Unit:

Duration in Days:

 = Focused

 = Rigorous

 = Flexible

 = Coherent

 = Relevant

 = Diverse, Equitable, and Inclusive

Relevant Standards:	Examples and Explanations:
Transfer Goal:	
Coherence:	
Essential Questions:	Enduring Understanding:
What Students Will Know:	What Students Will Do:
Demonstration of Learning:	

Part II: Unit Development (continued)

Refer to [the glossary](#) on page 17 for a definition of each component of the template.

Unit Overview/Summary — FOCUS:	 = Focused	 = Coherent
Unit Number:	 = Rigorous	 = Relevant
Title of Unit:	 = Flexible	 = Diverse, Equitable, and Inclusive
Duration in Days:		

Unit-Specific Vocabulary and Terminology:		Aligned Unit Materials, Resources, and Technology:	
Opportunities for Interdisciplinary Connections:	Opportunities for Application of Learning:	Critical Consciousness for Diversity and Equity:	
Supporting Multilingual/English Learners:			
Lessons:		Learning Targets:	

Part III: Learning Plan/Lesson Sequence Development

Lesson Number:
Lesson Title:
Duration (Sessions/Days):

Lesson Description:			
Standards Addressed: Content standards Interdisciplinary standards CELP		Learning Targets:	
Crosscutting Concepts			
Tasks:			
<i>Name</i>	<i>Description</i>	<i>Purpose</i>	<i>DOK Level</i>
Real-World, Culturally Relevant Connections:		Lesson Terminology/Vocabulary: Academic Vocabulary Content Vocabulary	
Guiding Questions:		Anticipated Misconceptions:	

Part III: Learning Plan/Lesson Sequence Development (continued)

<p>Plan for Differentiation or Personal Learning: <i>How might this unit support all learners that benefit from adaptations and enrichment?</i></p>	<p>Assessment of Understanding: Readiness, Interim, Formative, Summative Assessments</p>	<p>Opportunity for Student Voice and Choice:</p>
<p>Materials/Resources/Texts/Speakers</p>	<p>Integration of Technology: <i>Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning</i></p>	
<p>Plan for Virtual Learning (Synchronous): <i>For example: Instead of a brain dump activity, student share words aloud that are written on a chart.</i></p>	<p>Plan for Virtual Learning (Asynchronous): <i>Students create a word cloud.</i></p>	
<p>Home Links: <i>School to Home Connection to engage families as partners in learning</i></p>		

Adapted from Naugatuck Public Schools Curriculum Writing Template

Appendix B: Glossary

Curricula Guidance Glossary

Academic Vocabulary: Words that are traditionally used and regularly appear in academic dialogue and text but are not often explicitly taught.

Application of Learning: Educational approach whereby students learn by engaging in direct application of skills, theories and models. Students apply knowledge and skills gained from traditional classroom learning to hands-on and/or real-world settings, creative projects or independent or directed research, and in turn apply what is gained from the applied experience to academic learning. The applied learning activity can occur outside of the traditional classroom experience and/or be embedded as part of a course.

Blended Learning: The practice of using both online and in-person learning experiences when teaching students.

Challenge-based Learning: An efficient and effective framework for learning while solving real-world challenges. The framework fuels collaboration between students, teachers, families, and community members to identify big ideas, ask thoughtful questions, and identify, investigate and solve challenges.

Content Vocabulary: Words that are specific to a given domain or subject area.

Culturally Responsive: Any form of education or teaching that honors learner's cultural capital and incorporates their histories, values, beliefs, and perspectives, including educator's ability and willingness to learn from and relate respectfully with students, and use students' experiences and identities in developing and implementing curricula.

Curriculum: Curriculum is different from state and national academic standards in that standards define what students are expected to learn by subject and grade. The curriculum combines how teachers will teach to develop skills, content knowledge and assess students' ability to transfer learning. Curriculum is the central roadmap for communicating essential learning outcomes for mastery by the end of a grade or grade band. The structure and organization of curriculum is guided by a curriculum framework that must include standards aligned concepts, skills, high impact instructional methods, high quality materials and multiple means of assessment aligned to standards.

Differentiation: A student-centered instructional model used by teachers to proactively plan with students' differences, as well as their similarities, in mind with the goal of building bridges between critical content and student interests. Differentiation calls for teaching mindfully, and includes the utilization of a wide variety of teaching techniques and lesson adaptations to support the success of students, responding to them as individuals. Differentiation includes the utilization of a wide variety of teaching techniques and lesson adaptations to instruct a diverse group of students, with diverse learning needs, in the same course, classroom, or learning environment.

Depth of Knowledge: Degree or complexity of knowledge that the content curriculum standards and expectations require.

Educational Standards: The learning goals for what students should know and be able to do at each grade level. Educational standards are not a curriculum. Educational standards are adopted by the Connecticut State Board of Education to guide the development of high-quality curriculum and high impact instruction. Local communities and educators customize and personalize the development of curriculum aligned to the approved educational standards, district needs and portrait of the learner.

Enduring Understanding: The major ideas you want students to internalize and understand deeply. These understandings should be thematic in nature. They are not the end all, be all of the question.

Essential Question: A question that can be approached in multiple ways. There should be no more than 2-3 essential questions and they should align with your topics. Questions can be repeated throughout a course or over years, with different enduring understandings.

Flexible Learning Pathways: Versatile courses offerings, academic curricula, and learning experiences that individual students complete as they progress in their education toward graduation.

Formative Assessment Practices: Not a single test but a series of effective teaching practices, inseparable from instruction. Formative assessment includes clarifying the purpose of the learning, providing exemplars so students know what good work looks like, using activities that engage students, and eliciting evidence of their learning. During the formative assessment process, teachers regularly provide feedback that helps learners know what they need to do to continue learning, encouraging students to serve as learning resources for one another, and increasing students' ownership of learning.

Habits of Mind: Attributes that human beings display when they behave intelligently.

Interdisciplinary: Conscious effort to apply knowledge, principles, and/or values to more than one academic content simultaneously.

Learning Target: Concrete goals written in student-friendly language that clearly describe what students will learn and be able to do by the end of a class, unit, project, or even a course.

Mastery-Based Learning: Mastery-based learning refers to systems of instruction, assessment, grading, and academic reporting that are based on students demonstrating that they have learned the knowledge and skills they are expected to learn as they progress through their education.

Multiple Representations: Referred to as the "what" of learning; Learners differ in the ways that they perceive and comprehend information that is presented to them so providing options for representation is essential.

Performance-based Learning: An instructional approach or teaching method that utilize multifaceted projects, requiring diverse skills, as a central organizing strategy for educating students in which students learn by actively engaging in real-world and personally meaningful projects.

Personalized Learning: A diverse variety of educational program, learning experiences, instructional approaches, and academic-support strategies that are intended to address the distinct learning needs, interests, aspirations, or cultural backgrounds of individual students

Remote Learning: Public Act 21-2 defines remote learning as instruction by means of one or more Internet-based software platforms as part of a remote learning model.

Students and educators are not physically present in a traditional classroom environment. Instruction is relayed through technology, such as a learning management system with embedded tools like discussion boards, video conferencing, online assessments, and teacher/administrator dashboards to monitor progress from remote locations.

Scaffolding: Variety of instructional techniques used to move students progressively toward stronger understanding and, ultimately, greater independence in the learning process.

Student-centered: Instruction that gives students opportunities to lead learning activities, participate more actively in discussions, design their own learning projects, explore topics that interest them, and generally contribute to the design of their own course of study.

Transferable Skills: Broad set of knowledge, skills, work habits, and character traits that can be applied in all academic and technical subject areas and are used in all educational, career, and civic settings throughout a student's life. Knowledge, concepts or skills that are transferable between subjects and domains.

Voice and Choice: Intentional involvement of students in the development of projects, in definition of goals, resources to learn, time management and products to present to an audience.

Appendix C: References

- [ASCD](#)
- [CAST](#)
- [CSDE Mastery-Based Learning](#)
- [Dataworks Educational Research](#)
- [EL Education](#)
- [National Education Association](#)
- [State Board of Education Position Statements](#)
- [State Board of Education Position Statement on Culturally Responsive Education](#)
- [SUNY](#)
- [The Glossary of Education Reform](#)
- [Webb, N. \(November 2005\). Depth of Knowledge levels for four content areas. Presentation to the Florida Education Research Association, 50th Annual Meeting, Miami, Florida](#)
- William. D. (2011). *Embedded Formative Assessment*. Bloomington, IN: Solution Tree Press.

Appendix D: CSDE Contacts by Content

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Connecticut State Department of Education

REGION 5 UNIT ORGANIZER

Grade/Subject
Unit Title
Overview of Unit
Pacing

Background Information For The Teacher (Unit Overview)

Rationale: *Why should this unit be taught? Why should students learn these concepts and skills? How might they use it in life? (Paragraph Form)*

Key Learning/Big Ideas: *Bulleted list*

Essential Questions

Essential Questions *The philosophical questions (3-5) students will grapple with throughout the unit*

-

REGION 5 UNIT ORGANIZER

Core Content Standards	
Content Specific Standards (NGSS, SS Framework, CCS, etc.)	<p><i>Only add the notation for the standards - you don't need to write them all out. You can also link them to the website for the standard noted. For ELA folks, you will add the CCS here rather than below.</i></p> <ul style="list-style-type: none"> •
Content Specific Practices (where applicable)	<p><i>Only for Math and Science. Science folks will add a row for Cross-Cutting Concepts as well. Others delete this row.</i></p> <ul style="list-style-type: none"> •
CT Core Literacy Standards (non-ELA)	<p><i>For everyone except ELA and math. ELA and math will delete this row</i></p> <ul style="list-style-type: none"> •
Portrait of the Graduate Characteristics	<p><i>Bold the ones that will be explicitly taught and assessed in this unit</i></p> <ul style="list-style-type: none"> • Collaborator • Communicator • Empathizer • Problem Solver • Planner

REGION 5 UNIT ORGANIZER

K-U-D

UNDERSTANDS

Big ideas, generalizations, principles, concepts, ideas that transfer across situations

Conceptual understandings - not the answers to the EQs but what students will come to understand by grappling them

Students will understand that:

-

KNOW

Key Facts, formulas, information, vocabulary

Can be words, phrases, or sentences

-

DO

Skills of the discipline

Can be sub-skills from a standard

-

REGION 5 UNIT ORGANIZER

Common Student Misconceptions for this Unit

These can be about content, skills, or processes

Students might mistakenly believe:

-

Unit Assessment

Performance Assessment

*(Performance Task = "An Inquiry")

Task Overview: (directions for teachers, including what the task is, how it's authentic, how it might be differentiated, materials, etc.)

Student Directions: (link to Google document that will be given to students)

Other (Formative, quizzes, tests, etc.)

-

REGION 5 UNIT ORGANIZER
Supplemental Materials and Resources

<p align="center">Texts <i>Texts can be print, visual, film, etc.</i></p>			
<p align="center">Required Texts <i>Can be the entire text and/or excerpts depending on students' readiness levels; Should not be a long list to make room for teacher and student choice</i></p>			
<p align="center">Title <i>Include link where applicable</i></p>	<p align="center">Author</p>	<p align="center">Rationale</p>	<p align="center">Lexile Level (where applicable)</p>
<p align="center">Suggested Texts <i>A menu of potential texts that fit the theme and scope of the unit; Should be varied genres and modes</i></p>			

REGION 5 UNIT ORGANIZER

Learning Plan	
Required Learning Activities	
<i>In Order to Learn (Key Skills/Concepts/Understandings/POG Characteristics)</i>	<i>Summary of Key Learning Events and Instruction (Differentiated for Varied Ability Learners). Written to complete the sentence "Students will...." starting with a verb. Add rows as needed.</i>
	•
	•
Suggested Learning Activities	
<i>In Order to Learn (Key Skills/Concepts/Understandings/POG Characteristics)</i>	<i>Summary of Key Learning Events and Instruction (Differentiated for Varied Ability Learners). Written to complete the sentence "Students will...." starting with a verb. This should be a menu of options for each skill/concept/etc. Add rows as needed.</i>
	•
	•

Revision History

Revision Date	Explanation of change(s) made to document

REGION 5 UNIT ORGANIZER

Woodbridge BRS Unit Planner

Grade/Subject	
Unit Title	
Pacing	

Unit Overview

Rationale: *Where does this unit fall in the scope of the year/curriculum? What is the purpose of this unit?*

Big Ideas

Enduring Understandings *Represent end learning goals for the unit. Big ideas transfer across subjects and grade levels.*

Essential Questions *The philosophical questions (3-5) students will grapple with throughout the unit*

Woodbridge BRS Unit Planner

Core Content Standards

Overarching Standards

--

Priority CT Core Standards or Content Specific Standards

--

Supporting Standards

--

Performance Expectations/Success Criteria

--

Woodbridge BRS Unit Planner

Concepts students need to know/understand	Skills students need to be able to do

Authentic Assessment/Project-Based Assessment/Inquiry	Unit Assessments (Common assessments, formative, quizzes)

Learning Plan		
Strategies for Tier I Instruction	Materials/Resources	Assessments

Woodbridge BRS Unit Planner

Specialized Instructional Strategies		
Differentiation Strategies	Intervention Strategies	MLL/Special Education Strategies

Example Unit Planner – not for use

Grade/Subject	Grade 2
Unit Title/Topic	Science, Unit: Plants and Soil are Friends
Pacing/# of weeks	5 weeks, November week 1 through holiday break or first week in January

Unit Overview

Rationale: This unit fits after the Matter unit and helps students understand that just like people and characters, soil has physical characteristics or properties, and the different characteristics affect how plants grow. Also, just like social studies teaches us that people live in different areas of the world, different soil can be found in different parts of the world. People and soil are very closely connected. The performance expectations in second grade help students formulate answers to questions such as: “How does land change and what are some things that cause it to change? How are materials similar and different from one another, and how do the properties of the materials relate to their use? What do plants need to grow? Students are expected to develop an understanding of how and why soils differ by climate/area, what plants need to grow, and how plants depend on animals for seed dispersal and pollination. Students are also expected to compare the diversity of life in different habitats.

Big Ideas

Enduring Understandings

Studying and comparing things helps us make sense of our world
Plants depend on water and light to grow
Soil is different in different places
Different plants can live in different places
Soil keeps plants, animals, and humans alive
Properties of soil are color, texture, and loam
Materials have different physical properties which make them useful in different ways

Essential Questions

Why do we classify things?
Why do some plants only grow in certain places?
How does soil help us survive?
How does the type of soil impact plants?
How can we classify or sort soil types?
How does the soil where I live impact things that I see around me?

Example Unit Planner – not for use

Core Content Standards	
Overarching Standards	<p>Understanding the properties of soil helps us better understand the environment in which we live</p> <p>A "variety of objects, organisms, and systems are made up of parts" - an idea that applies to the physical, life, and Earth and space sciences, as well as engineering.</p> <p>A simple sketch, drawing, or physical model helps to show how the shape of an object helps it function as needed to solve a given problem.</p>
Priority CT Core Standards or Content Specific Standards (NGSS)	<p>2.3.2- Classify soils by properties such as color, particle, size (sand, silt, clay), or amount of organic material (loam).</p> <p>2.3.3- Explain the importance of soil to plants, animals, and people.</p> <p>2.3.4- Evaluate the quality of different soils in terms of visible/observable presence of air, water, living things, and plant remains</p> <p>NGSS: Engineering Standards: 2: Developing and Using Models 3: Planning and Carrying Out Investigations Life Science: LS2 Ecosystems: Interactions, Energy, and Dynamics</p>
Supporting Standards	<p>2.3.1- Use senses and simple tools (ex. beaker/sieve) to separate soil into components such as rock fragments, water, air, and plant remains</p> <p>2.3.5- Conduct a test to investigate how different soil types affect plant growth and write conclusions supported by evidence</p> <p>CT Core Standards: LA/Literacy – W.2.7 Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations). (2-LS2-1) W.2.8 Recall information from experiences or gather information from provided sources to answer a question. (2-LS2-1)</p>

Performance Expectations/Success Criteria

Students will separate and classify soil by sand, silt, clay, and loam as well as by color, size, texture.

Students will explain and evaluate soil importance to plants, animals, and people.

Students will analyze soil components: rock fragments, water, air, organic material.

Students will design an experiment to show that soil affects plant growth.

Students will design and conduct an experiment to show that a plant needs light and water to grow.

Example Unit Planner – not for use

Concepts students need to know/understand	Skills students need to be able to do
Components of soil: Rock fragments, Water, Air, Organic material Soil can be separated to identify sand, silt, clay, particles Name particles by: Color, Size, Texture, Loam Soil importance to plants, animals, people Soil affects plant growth Soil is a habitat for many living things	Observe/analyze Classify Explain and Interpret Evaluate Evaluate/Synthesize Read, write, and speak about observations

Authentic Assessment/Project-Based Assessment/Inquiry	Unit Assessments (Common assessments, formative, quizzes)
Students will design an experiment to show that soil affects plant growth. Students will design and conduct an experiment to show that a plant needs light and water to grow. Students will create a local soil book	FOSS Kit- Pebbles, Sand, & Silt investigation- all students Vocabulary activity & week 2 Classification stations Scientist journal- examine local soil, run tests, record findings, & observe plant growth for local soil book

Learning Plan- example only- not complete

Strategies for Tier I Instruction	Materials/Resources	Assessments
Identifying similarities and differences, comparison/contrast, classification Making models/ pictures to represent content Generating and testing hypotheses- problem-solving, investigation, inquiry tasks Journaling for use for data and summarizing Vocabulary cards	Venn diagrams and T charts for comparisons Compiled soil materials and variety of sorting tools (Foss Kit) Digital/print images of various landscapes, plants, and soil types John Muir Soil lesson: https://vault.sierraclub.org/john_muir_exhibit/lessons/science/grade_2_soil.aspx Literature: Dirt Made My Lunch- Banana Slug String Band	Informal: exit slips, schema activator questions, end of class tracking of Essential Questions, MRT (multiple response techniques like dry erase boards or tech survey platforms)

Example Unit Planner – not for use

Specialized Instructional Strategies		
Differentiation Strategies Graphic organizers (Venn, Comparison/contrast, Word web) Varied texts Modeling Video journal	Intervention Strategies Direct vocabulary instruction Technology modeling/visual support Visual cues/images to align with content Hands-on manipulatives Taking pictures on iPad/device to show steps for students to reference Repetition and practice Dictation/recording of notes/video journal	MLL/Special Education Strategies Models/materials Story frames Direct vocabulary instruction Technology modeling/visual support Visual cue cards Pre-teach concepts Advance organizers