K–12 Universal Curriculum Design Principles

From Design to Classroom: A Complete Guide to Curriculum for Educators

CONNECTICUT
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Contents

Acknowledgments

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' 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 with the [content standards adopted by the State Board of Education](#) (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.

Curriculum 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, and 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 daily access to on-grade-level instruction. To ensure equitable access to curricula the CSDE is spotlighting the position statement on Universal Design Learning (UDL) Principles and Culturally Responsive Education 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:

- **Multiple Means of Engagement + CSDE Principle:** Learning experiences should be personalized, relevant, and responsive to student needs.
- **Multiple Means of Representation + CSDE Principle:** All students deserve equitable access to high-quality learning opportunities.
- **Multiple Means of Action and Expression + CSDE Principle:** Maintain challenging academic standards while supporting diverse learner needs.

Integrating UDL with CSDE Design Principles creates a robust curriculum development framework that supports educator effectiveness and student success. This alignment ensures that the educational system meets the diverse needs of all learners while maintaining high academic standards and promoting equitable access to quality education.

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 students' culturally based and community-based knowledge to the classroom learning experiences that creates an environment of reciprocal respect and collaboration.

Opportunities for Mastery

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. These pathways should emphasize 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. Schools need to create powerful, intentional learning experiences for every student regardless of his/her past learning history and allow students to demonstrate mastery through a body of evidence. The Connecticut K–12 Curricula Design Principles Guide provides curriculum design templates to support these intentional opportunities

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. Creating a community of learners and networks engages educators and learners as partners in the ongoing analysis, planning, and development of curricular resources that match their strengths, 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 that embodies six core principles. The application of these principles leads to the creation of high-quality curriculum and instruction to engage students with grade-level content and opportunities to accelerate learning:

Focused

Builds upon and connects prior knowledge providing aligned intentional learning progressions, focused on the educational standards and describing what all students should know/ understand/do to be prepared for learning, life, and work beyond school

Flexible

Offers inherent flexibility for learners, including adult learners, allowing for anytime/anywhere in 21st-century learning environments that include a combination of hands-on and digital resources allowing for student-centered learning; Students develop skills and relationships incorporating opportunities for voice and choice that will prepare them for success after high school.

Coherent

Connects and links learner goals, the learner framework, vision, or portrait of a learner/graduate. Answers the questions of how a unit builds upon and connects to prior knowledge, and how it prepares the student for future learning.

Relevant

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

Rigorous

Communicates high expectations and supports learning for all learners, including those with high needs, regardless of background or advantage, and provides high quality, high impact learning opportunities in all learning models (e.g., synchronous, asynchronous, in-person, hybrid, or remote).

Culturally Responsive

Ensures accessible learning and cognitive processing by valuing students' lived experiences and diverse ways of knowing, and using those experiences and knowledge as scaffolds to connect to new content.

Phases of Curriculum Development

Phase 1
Analysis & Planning

Phase 2
Articulating & Developing

Phase 3
Implementing

Phase 4
Evaluating

Curriculum development is a systematic process aligned with the district's strategic plan. High-quality curricula encourage teachers and students to engage with the content, grow the knowledge and skills of all learners — adult and student, and elevate student engagement to advance learning. This development, backed by evidence-based practices, is a multi-step, iterative design process. It begins with evaluating existing educational approaches, designing improved methods, implementing revised strategies, and results in evaluating the implementation and impact of the curriculum or student learning. Curriculum development should include the four phases listed below:

Phase 1

Phase 1: Analysis and Planning

    a. Convening a curriculum 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
    d. Reviewing district strategic plan to identify and inform curricular implications

Phase 2

Phase 2: Articulating and Developing

    a. Articulating a K–12 program philosophy aligned to the local vision/portrait of the graduate
    b. Defining K–12 program learning goals and desired results aligned to district strategic plan
    c. Developing and sequencing K–12 grade-level course learning progressions
    d. Developing and/or identifying resource materials to assist with curriculum implementation
    e. Developing and/or identifying assessment items and instruments to measure student progress

Phase 3

Phase 3: Implementing

    a. Putting curricula into practice
    b. Providing initial and ongoing professional learning and support
    c. Monitoring implementation at district, school, and classroom

Phase 4

Phase 4: Evaluating

    a. Monitoring fidelity of implementation
    b. Determining the success and impact of the curricula on student learning
    c. Renewing/revising curricula

Phase 1: Analysis and Planning

Convening a Curriculum Design and Development Team

The first step of the curriculum development process is to convene a curriculum design and 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 curriculum. 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 study evidence-based practices and current research that supports effective teaching and learning strategies to meet the needs of all 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 AcclerateCT 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 curriculum development process moves forward:

- meeting the needs of all students, including those with high needs (special education, free and reduced meals, English Learners/Multilingual Learners)
- equity-based learning theory and other cognitive psychology findings on how students learn;
- what determines developmental readiness or developmental appropriateness;
- the current expectations and needs 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;
- cross-curricular opportunities;
- 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 strengths before, during, and after the implementation of curricula, which upholds the commitment to creating a learner-centered environment. Curriculum development is a process by which meeting student needs leads to improvement of student learning. Curriculum developers should consider gathering as much information as possible, which may include:

- national and state standards;
- district's portrait of a graduate;

- shared understanding of high-quality curriculum;
- role of assessments;
- status of student achievement;
- specific program content;
- current instructional resources;
- teacher-developed lessons and assignments;
- assessment samples;
- student perception; and
- feedback from parents.

The information, commonly gathered through surveys, discussions, and assessment data, most frequently includes:

- teacher analysis of the present curriculum to identify strengths, weaknesses, omissions, and problems;
- sample lessons that illustrate curriculum implementation;
- sample assessments or walkthrough data 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 curriculum offer personalization opportunities to meet the needs of all children, including children with disabilities and ELs?
- How will the curriculum be culturally, ethnically, and linguistically responsive?
- How will the curriculum address the social-emotional needs of students?

The information can highlight the concerns and attitudes of teachers, administrators, parents, and students.

By carefully examining these data, key issues and trends will emerge that will influence the design of the curriculum. For example, actions may require the need to:

- revise existing content and pedagogy to align with recent research;
- ensure access and use of aligned instructional materials by all teachers and students;
- provide professional learning;
- integrate emerging technologies to enhance learning;
- relate content more closely to contemporary problems and issues;
- increase the amount of interdisciplinary work in which students are engaged;
- provide different and/or enriched curricular opportunities, including problem-based projects;
- address student and parent perceptions, questions, and concerns;
- determine if the next step is to renew or adopt a new curriculum; and
- determine if the next step is to use a "program" or compendium, or develop local curriculum.

Phase 2

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

Defining K–12 Curriculum Philosophy, Values, Goals and Desired Results

The purpose of a K–12 curriculum philosophy is to articulate fundamental beliefs or core values that guide inclusive instructional processes designed to meet the diverse learning needs of all students. The curriculum establishes K–12 learning goals and grade-level/course expectations for learning that address comprehensive cognitive, affective, and social-emotional expectations for what is taught and learned, ensuring accessibility and meaningful engagement for every learner.

Curriculum goals:

- are comprehensive and flexible enough to provide the foundation for high-quality K-12 curricula that accommodate all learners across the full spectrum of abilities, learning styles, and developmental readiness levels;
- support continuous growth throughout K-12 and prepare students for success in postsecondary education, careers, and civic engagement through multiple pathways and authentic learning experiences;
- are logically connected to and emerge from the content area philosophy while incorporating Universal Design for Learning principles that recognize diverse ways students' access, engage with, and express their learning;
- include multiple means of representation, engagement, and expression as outlined in the philosophical framework, ensuring equitable access to rigorous content for all students;
- are realistic, manageable, and scaffolded to support the development of measurable grade-level and course learning targets that can be demonstrated through varied assessment approaches; and
- align with the district's portrait of a graduate while honoring students' cultural assets, prior experiences, and individual strengths as pathways to achieving shared expectations.

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

If the philosophy and goals of curricula represent the guiding principles of a 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 State Board of Education articulate 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 aligned with the goals and philosophy of the curriculum and the real, emerging needs of students?
- Is the target realistic and attainable by students?
- Are appropriate materials and other resources universally available to make the target achievable?

Curriculum design teams systematically construct comprehensive K-12 scope and sequence frameworks that articulate clear learning progressions, demonstrating how student understanding

and competencies develop vertically across grade levels and horizontally within and across content areas. These frameworks serve as the architectural foundation for coherent, research-based curriculum that ensures equitable access to rigorous learning experiences while accommodating diverse learner needs and pathways.

The scope and sequence development process involves collaborative mapping of essential understandings, transferable skills, and authentic performance expectations that build systematically from foundational concepts in early grades to sophisticated applications in advanced coursework through. Teams prioritize seamless curricular articulation and intentional coordination among grade levels and courses, with particular attention to critical transition points between elementary and middle school configurations and between middle and high school programs.

These meticulously designed learning progressions inform the creation of specific grade-level and course documents that translate broad curricular vision into actionable instructional frameworks. The resulting documents provide educators with clear guidance for unit design, assessment development, and differentiated instruction while maintaining fidelity to the overarching curricular coherence and student learning outcomes.

Course Information Overview, Unit Development, and Lesson Development

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

- **be aligned and focused** on the educational standards, provide 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, communicate high expectations,** and support learning for historically marginalized students (yellow).
- **make explicit connections and links** between different subjects/concepts/experiences and the district's 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 Characteristics of Resource Materials to Assist with Curriculum Implementation

Effective curriculum include high-quality instructional materials (HQIM) designed to facilitate high-quality teaching and learning. Instructional materials come in various forms, including textbooks, digital content, lesson plans, assessments, and other resources teachers use to deliver instruction and support student learning. The following are characteristics of HQIM:

Standards Aligned: HQIM should be aligned with relevant educational standards, such as state or national curriculum standards, to ensure they address the required grade-level content and skills. The team should consider the following actions to ensure alignment:

- Conduct systematic alignment analysis using content standards crosswalks.
- Confirm standards alignment within and across grade levels.
- Check for appropriate grade-level complexity and rigor.
- Determine alignment with district-specific learning objectives and vision/portrait of the graduate.

Organized: HQIM should be well-organized and easy to navigate, with a clear structure and sequencing that promotes logical progression of content and skills. The team should consider the following actions to ensure clear and coherent organization:

- Evaluate the learning progression of concepts and skills within and across units.
- Assess the clarity of learning objectives and success criteria.
- Review the consistency of evidence-based instructional routines and practices.
- Examine the integration of the formative assessment process.

Content Accurate: HQIM should be accurate and reliable, based on current and verified information, research-based practices, and reputable sources. The team should consider the following actions to ensure content accuracy and quality:

- Validate content through subject matter expert review.
- Check for current and culturally relevant examples.
- Verify alignment to current research.
- Evaluate the clarity and completeness of explanations and models provided.
- Ensure varied opportunities to demonstrate learning of content.

Accessible: HQIM should be designed to support diverse learners, providing differentiated resources to support the variety of student abilities and backgrounds while maintaining rigor. They should also be accessible to students with disabilities, ensuring compliance with accessibility standards. The team should consider the following actions to ensure an appropriate framework for planning differentiation.

- Evaluate scaffolding options for diverse learners.
- Evaluate interactive learning opportunities.
- Assess authentic problem-solving activities.
- Confirm inclusion of real-world applications.
- Review acceleration opportunities for all learners relative to their starting point.
- Verify English Learner/Multilingual Learner (EL/ML) supports.
- Verify accessibility features for students with disabilities.

Effective Integration of Technology: HQIM may provide access to educational technology as companions to support materials or curricula. To support the analysis, it is important to consider the effective and intentional implementation of technology to enhance the learning experience. The team should consider the following actions for the effective and intentional use of educational technology within the learning day.

- Assess the compatibility of digital platforms with district systems.
- Review data privacy and security measures.
- Evaluate offline access options.
- Review device requirements and technical specifications.
- Ensure teacher training and professional learning needs for the use of technology tools.

The CSDE has designed and developed high-quality model curricula as open education resources for use by districts to support local design, evaluation, or implementation. All model curricula are accessible anytime, anywhere through GoOpenCT, Connecticut's digital library for open education resources.

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

Sensible assessment practices include the formative assessment process, interim, diagnostic, screener, and summative assessments. These practices are designed to guide teaching and learning. The goal is to provide useful information for various purposes and audiences for student learning and instructional decision-making. Formative assessment practices and interim assessments are designed to support instruction and monitor progress during the year. Summative assessments evaluate overall academic achievement at the end of the year and are designed to inform accountability, evaluation, and support.

The unique needs and strengths of learners must be considered in the planning of both assessment and instruction, including the provision of academic supports, accommodations, and modifications as required in a student's Individualized Education Program (IEP), Section 504 plan, or other intervention/learning plan.

Formative Assessment Practices

Formative assessment is a process used to monitor student learning in the classroom and help make ongoing instructional adjustments to meet student needs. Formative assessment 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 mastery of grade-level learning targets.

- Formative assessment is a series of effective teaching practices—inseparable from instruction.
- Teachers regularly provide feedback that helps students know what they need to do to continue learning, encouraging students to serve as resources for one another, and increasing students' ownership of learning.
- Practices include clarifying the purpose of the learning, providing exemplars so students know what good work looks like, using activities that engage students and elicit evidence of learning, and giving feedback that helps learners understand what they need to do to continue learning.
- Strong, high-quality evidence of its positive impact on increasing student achievement.

Smarter Balanced Interim Assessments for English Language Arts, Mathematics, and Next Generation Science Standards (NGSS)

The interim assessment blocks (IABs) are a useful way to check student progress and to gather information about students' learning that can alter the instruction provided. Interims offer flexibility and can be used for professional learning or in class with students in a variety of ways.

- Administer IABs without the use of a secure browser.
- Use IABs informally by browsing items from the [Assessment Viewing Application](#).
- Assign to students during instruction as a "Do Now" activity or use to model a concept.
- Administer IABS as a pre-test or post-test activity to check students' progress.
- Administer IABs to students in a formal setting in the classroom to view scores in the Centralized Reporting System.

Diagnostic Assessments

Diagnostic assessments may be used to identify strengths and weaknesses in the pre-requisite skills for the on-grade level content. Teachers may choose to use the existing and available district-provided diagnostic assessments for desired purposes if the available assessment allows for valid interpretations of students' strengths and weaknesses relative to the defined purpose.

- Administer diagnostic assessments as a type of low-stakes pre-assessment to gauge how much information a student knows and understands about a particular topic.
- Select learning options according to results, ensuring that learning experiences will be a fit for students.
- Create flexible, short-term groupings based on student profiles.
- Use the results of diagnostic assessments as the foundation to support the refinement of a teacher's unit or lesson goals.

Screener Assessments

Screening assessments are given routinely to all students in a grade and are the same for all students in a grade within a school or district. Such assessments should be easy to administer, reliable, valid, and timely and informative.

- A short assessment administered to all students to screen them for being at risk of not mastering a skill in the future.
- Typically have a cut score (i.e., norm or criterion-referenced) to identify students at risk for learning difficulties.
- Often followed by other assessments to diagnose specific teaching and learning needs.

Summative Assessments

The statewide mastery examinations are summative and indicate student achievement and progress, but should not drive instruction. They are designed for broad purposes, including accountability, reporting, and program evaluation. They are not intended to support day-to-day classroom instruction.

There is no single assessment that meets the needs of identifying what each student knows and can do. Thus, a variety of assessment practices must be incorporated into the curricula. Because assessment drives instruction, curricula teams must identify and create an assessment process focused on instruction. The CSDE's Sensible Assessment Practices in Action guides educators and curricula developers on best assessment practices.

Phase 3

Phase 3: Implementing

Putting the Curriculum into Practice

The curricula process envisioned here entails an in-depth and systematic approach to development and implementation. An effective curricula team develops an implementation plan to enact the curricula. The implementation plan includes communication, professional learning, and equitable access to materials.

Communicating the Curricula

Clear communication moves curriculum work forward, and a multi-phase strategic communication plan that includes an articulated vision is essential for the sustainability of curricula. To clearly define the outcomes, roles, and expectations of everyone involved, consider the following guiding questions when developing a multi-phase strategic communication plan.

- To put the curriculum in context (e.g., the challenges, why the shift, why curricula revisions, updates, or development), what is the larger narrative story?
- What is the shared understanding of the new curricula?
- What is changing and when?
- Who is accountable for each aspect of the new curricula?
- Who is being impacted the most (by the curricula changes)?
- What actions will be required by stakeholders?
- How can teachers and administrators be involved in the process, including during critical touchpoints?
- What are the commitments from leaders to ensure stakeholders remain engaged and included in the process?
- What is the communication plan beyond the launch phase?
- How will new curricula be communicated to other stakeholders (e.g., parents and guardians, school board members)?
- How will implementing new curricula be managed to minimize disruptions to teaching and learning?
- How will the multi-phase strategic communication plan be monitored, measured, adjusted, or adapted?
- What risks and other internal factors could influence implementing new curricula?

A multi-phase strategic communication plan can begin with major categories and approaches, determined by the curriculum team for clarity about new curricula, action steps, and timelines. Giving attention to the various aspects of the multi-phase strategic communication plan can support effective curricula implementation, including providing answers to stakeholders about where they fit in when putting the curriculum into practice, and alleviating concerns about the new curricula.

Provide 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. Teachers need at least two to three years to implement and utilize new curriculum and high-quality instructional materials. Districts and schools must provide professional learning and support to teachers to develop the knowledge and skills associated with the new curriculum. To implement new curricula with fidelity, teachers must have structured opportunities to study and internalize the standards and curriculum materials before classroom implementation. A curriculum development team and district/school administrators must be aware of this process and available to nurture it.

Ensure Equitable Access to Materials

Equitable access to curricular materials is fundamental to the successful implementation of curricula. Districts must ensure that all students, teachers, and support staff have consistent and reliable access to the full range of materials, resources, and tools required to implement the new curricula. This means considering and removing potential barriers to access, including language needs, technology requirements, and supports for diverse learners. True equity in access requires materials to be available in formats that serve each student, including English Learners/Multilingual Learners, students with disabilities, and those with multiple learning needs. Equitable access to high-quality curricular materials helps close opportunity gaps and supports the achievement of equitable educational outcomes.

Phase 4

Phase 4: Evaluating

Monitoring Fidelity of Implementation

There are various ways in which curriculum 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 with 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; rather, they 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 on the work needed to help all students achieve 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:

- [Connecticut State Department of Education Evidence-Based Practice Guides](#)
- [CSDE K-2 Literacy Learning Walk Form](#)
- [CSDE Science Walkthrough Observation Checklist](#)
- [Math Walkthrough Tool](#)
- [Needs Assessment Toolkit](#)
- [The EQuIP Student Work Protocol](#)
- [The Science of Reading - Literacy Look-Fors Walkthrough Guide](#)

Determining the Success and Impact of the Curricula

The curriculum development cycle ends and then begins again with a careful evaluation of the effectiveness and impact of the curriculum. Using surveys, focused discussions, and meetings like those described previously, a curriculum development team needs to periodically gather data on perceptions of curriculum 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 curriculum. This detailed review and analysis of quantitative and

qualitative information on the curricula's impact and perceptions of its strengths and weaknesses form the foundation for the revision. Additionally, these data can drive professional learning and assist in supporting teachers.

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 curriculum 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 curriculum 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 ELA Rubric
- EQuIP K-2 ELA Literacy Rubric
- EQuIP Mathematics Rubric
- EQuIP Rubric for Science

Appendixes

The following appendixes are included in this document to assist districts and schools in the curriculum 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:
Questions that should be answered in a course description include:

Aligned Core Resources:

Additional Course Information: *Big ideas addressed in the course*	**Habits of Mind/Social Emotional and Intellectual Habits (SEIH)/Transferable Skills Addressed in the Course:** *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).*

Adapted from Naugatuck Public Schools Curriculum Writing Template

Part II: Unit Development — Annotated Guide

Refer to [the glossary](#) on page 23 for additional information.

Unit Overview/Summary — FOCUS:		
Unit Number:	● = Focused	● = Coherent
Title of Unit:	● = Rigorous	● = Relevant
Duration in Days:	● = Flexible	● = Culturally Responsive

Relevant Standards:	Examples and Explanations:

Example Phenomena (Science only)

The "Why" of the lesson.

Transfer Goal:

The long term goal that requires opportunities to apply learning in new situations building on prior knowledge and habits of mind connected to the vision or portrait of a learner.

Coherence:

Explains how this unit builds on and connects to prior knowledge and learning.

Essential Questions:	Enduring Understanding:
Open-ended, thought-provoking, and intellectually engaging questions that point to transferable ideas and spark inquiry.	*Understanding that may present as answers to the essential questions. The core, conceptual insights that represent "big ideas" that have lasting value beyond the classroom.*
What Students Will Know:	**What Students Will Do:**
The cognitive components of learning. The information students should recall, explain or apply.	*The active performance-based aspects of learning. What students can perform, create, analyze, or produce.*

Demonstration of Learning:

The "DOL" can be a project, presentation, or product through which students "demonstrate" what they have learned.

Part II: Unit Development — Annotated Guide (continued)

Refer to [the glossary](#) on page 23 for a definition of each component of the template.

Unit Overview/Summary — FOCUS:	🟠 = Focused	🩷 = Coherent
Unit Number:	🟡 = Rigorous	🟢 = Relevant
Title of Unit:		
Duration in Days:	🟣 = Flexible	🔵 = Culturally Responsive

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:**
		Opportunity for teacher reflection on what knowledge is valued, how learning is assessed and whose voices are centered.
Supporting English Learners/Multilingual Learners:		
Lessons:	Learning Targets:	

Part II: Unit Development — Fillable Guide

Refer to [the glossary](#) on page 23 for additional information.

Unit Overview/Summary — FOCUS:	🟠 = Focused	🩷 = Coherent
Unit Number:	🟡 = Rigorous	🟢 = Relevant
Title of Unit:		
Duration in Days:	🟣 = Flexible	🔵 = Culturally Responsive

Relevant Standards:	Examples and Explanations:

Example Phenomena (Science only)

Transfer Goal:

Coherence:

Essential Questions:	Enduring Understanding:

What Students Will Know:	What Students Will Do:

Demonstration of Learning:

Part II: Unit Development — Fillable Guide (continued)

Refer to 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 ● = Culturally Responsive

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 English Learners/Multilingual 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
CT English Language Proficiency (CELP) Standards

Learning Targets:

Crosscutting Concepts

Tasks:

Name	Description	Purpose	DOK Level

Real-World, Culturally Relevant Connections:

Lesson Terminology/Vocabulary:
Academic Vocabulary
Content Vocabulary

Guiding Questions:

Anticipated Misconceptions:

Part III: Learning Plan/Lesson Sequence Development, continued

Plan for Differentiation or Personal Learning: *How might this unit support all learners that benefit from adaptations and enrichment?*	Assessment of Understanding: Readiness, Interim, Formative, Summative Assessments	Opportunity for Student Voice and Choice:
Materials/Resources/Texts/Speakers	**Integration of Technology:** *Intentionally aligned use of digital tools and resources to support acquisition of content, researching, organizing and communicating learning.*	
Plan for Virtual Learning (Synchronous): *For example: A plan that utilizes the tools identified for the integration of technology through an online platform to support the learning targets of the unit.*	**Plan for Virtual Learning (Asynchronous):** *A plan that utilizes the tools identified for the integration of technology through an online platform to support the learning targets of the unit.*	
Home Links: *School to Home Connection to engage families as partners in learning.*		

Adapted from Naugatuck Public Schools Curriculum Writing Template

Appendix B: Glossary

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

Application of Learning: An educational approach in which students learn by directly applying 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 the traditional classroom experience and/or be embedded in a course.

Blended Learning: The use of 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 specific to a given domain or subject area.

Culturally Responsive: A student-centered approach to teaching that recognizes, honors, and nurtures learners' cultural capital and incorporates their histories, values, beliefs, and perspectives, including the 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: The 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, and 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 the 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.

Curricular Resource: The curricular resources refers to the materials, digital tools, lesson plans and other supporting components that teachers use to implement a curriculum and facilitate student learning in the classroom.

Differentiation: A student-centered instructional model used by teachers to proactively plan with students' differences, as well as their similarities, in mind to build bridges between critical content and student interests. Differentiation calls for teaching mindfully and includes using a wide variety of teaching techniques and lesson adaptations to support the success of students and responding to them as individuals. Differentiation offers varied approaches to what students learn—content, how they learn it and make sense of ideas and concepts—process, and how they demonstrate what they've learned—product.

Depth of Knowledge: The degree or complexity of knowledge that the content curriculum standards and expectations require (https://www.webbalign.org/dok-primer).

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 and be-all of a question.

Essential Question: A question that can be approached in multiple ways. There should be no more than two to three 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 course 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 resources for one another and increasing students' ownership of learning.

Habits of Mind: Knowledge, skills, and thinking dispositions that help human beings respond constructively and appropriately for deeper understanding.

High-quality Instructional Materials: High-quality instructional materials (HQIM) refers to resources that are designed to facilitate effective teaching and learning. These materials come in various forms like textbooks, digital content, curricula, lesson plans, assessments, and other resources that are used by teachers to deliver instruction and support student learning (The Teaching Lab).

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

Learning progression: The purposeful sequencing of teaching and learning expectations across multiple developmental stages, ages, or grade levels.

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 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 how they perceive and comprehend information presented to them, so providing options for representation is essential.

Next Generation Accountability Data: Data derived from a broad set of 12 indicators that help tell the story of how well a school is preparing its students for success in college, careers, and life.

Performance-based Learning: An instructional approach or teaching method that utilizes 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 programs, 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 in grades 9-12 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, and online assessments.

Scaffolding: A 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 learning projects, explore topics that interest them, and generally contribute to the design of their course of study.

Social Emotional and Intellectual Habits (SEIH): The progression of knowledge, skills, and dispositions that form an essential blueprint for college and career readiness and equip every child with the knowledge and skills necessary to succeed in college, careers, and civic life; the social, emotional, and intellectual habits that set the stage for all future learning promoting intrapersonal, interpersonal, and cognitive competence.

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 the 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](#)
- [Standards for Remote Learning](#)
- [State Board of Education Position Statements](#)
- [State Board of Education Position Statement on Culturally Responsive Education](#)
- [SUNY](#)
- [The Teaching Lab](#)
- [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.

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