

Connecticut

High Quality Instructional Materials



Building a curriculum is a bit like predicting the future. You have to build it so that any student can learn from it. But as we all know, there are many types of learners, not only in a classroom but in the entire state. How do we prepare for them all?

This challenge is the reason the Connecticut State Department of Education has focused its definition of high-quality instructional materials (HQIM) on three principles of Universal Design for Learning. These principles help us design curriculum that is ready for all learners, rather than having to retrofit the curriculum for different students.

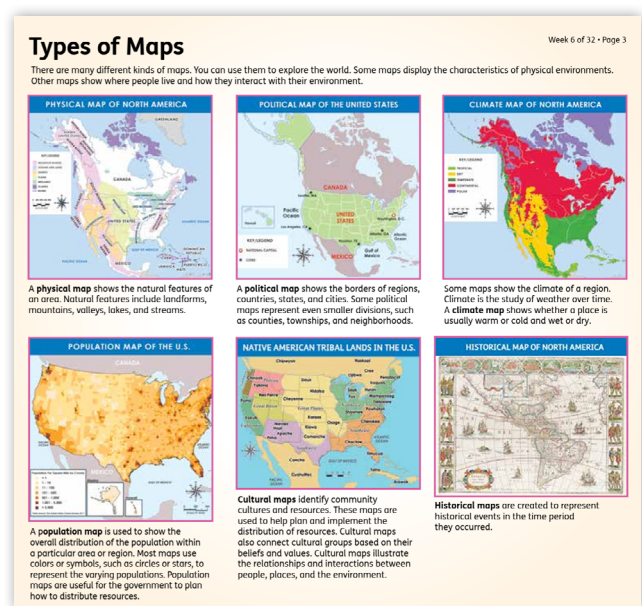
The first of these principles is “multiple means of representation”—in other words, presenting information in more than one way (e.g., text, audio, graphics).^[1] The second is “multiple means of action and expression”—presenting different ways for students to demonstrate what they know (e.g., writing, speaking, building).^[2] And the third is “multiple means of engagement”—presenting students with multiple ways of connecting with the material (e.g., collaboration, autonomy, challenge level).^[3]

The Connecticut State Department of Education has tailored these three principles into: equitable and inclusive curriculum, opportunities for mastery, and a culture of inquiry.^[4] If a curriculum can meet these elements, it is deemed HQIM in Connecticut.

One popular HQIM nationally is the social studies, science, and wellness curricula offered by Studies Weekly. The Studies Weekly student edition is a year-long colorful, newspaper-style consumable that builds on the Universal Design criteria adopted by Connecticut.

Multiple Means of Representation

Each publication contains standards coverage that is deployed in multiple ways: through articles, images, timelines, slide decks, audio, and video. For example, this section from the Connecticut publication that uses both text and images to teach about different types of maps:



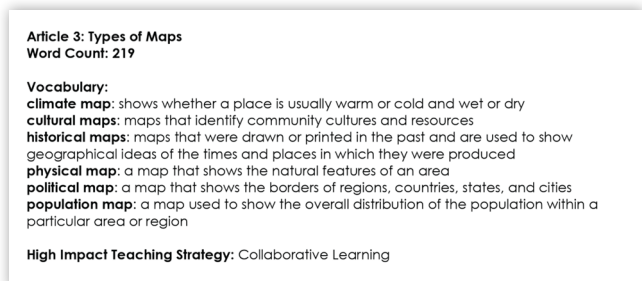
Example of Multiple Means of Representation

There is also a lesson walkthrough slide deck:



Example of Multiple Means of Representation

The teacher edition materials for this article direct the teacher to a video on the subject and offers a collaborative lesson plan.



Lesson Plan:

1. Introduce the concept of map types by watching the video "Types of Maps."
2. Ask students to listen for different types of maps and why different types of maps are useful.
3. Ask students to discuss what they learned with a partner.
4. Have students look at the images accompanying the text.
5. Ask how many types of maps are shown. **(six)**
6. As a class, read and review each type of map, and discuss how each is used.
7. Explain to students that they can use map skills to learn about specific places. To do this effectively, they should look at a map three times (go through the following steps with students):

Example of teacher edition directing to videos

Multiple Means of Action and Expression

Each week includes a "student edition" (SE) and a "teacher edition" (TE) that provide various ways to both build and assess student understanding. These items include everything from writing exercises, to discussion questions, to hands-on activities, to graphic analysis. For example, this activity where students pursue solving current geographic problems in their state using multiple modalities:

9. Extension activity: Divide the class into five groups. Have each group research a current geographic event from your state. Students will research the event and use geographic skills to understand the geographic event's impact on people and the environment. Give each group a piece of anchor chart paper or poster board. On their anchor chart paper or poster board, students should include:
 - a. a map of your state with the location of their event marked
 - b. an explanation of the geographic skills and tools they used to understand this problem
 - c. reasons why it is important to understand this problem
 - d. ways that this problem impacts people and the environment
 - e. possible solutions to this problem

Example of activity with multiple modalities

Or this lesson plan that helps students learn how GIS works by making a three-dimensional landscape using bread, frosting, spoons, and straws:

High Impact Teaching Strategies: Collaborative Learning, Differentiated Instruction, Multiple Exposures, Structured Lessons

Lesson Plan:

1. Review the concept of spatial perspective with students. Ask students to turn to their shoulder partner and discuss what they learned about the topic.
2. Explain to students that today, they will learn about a tool that helps geographers examine a place from multiple perspectives.
3. Divide the class into groups of 3-4 students. Give each group:
 - a. four pieces of bread
 - b. one cup of chocolate frosting
 - c. one cup of vanilla frosting, dyed green
 - d. 3-4 spoons
 - e. 3-4 straws
 - f. one plate
4. Have students work together to assemble the materials:
 - a. Cover one piece of bread in chocolate frosting.
 - b. Cover two pieces of bread in the vanilla frosting that has been dyed with green food coloring.
 - c. Place one of the pieces of bread with vanilla frosting on the plate, bread side touching the plate.

Example of activity with multiple modalities

[Continued in next image]

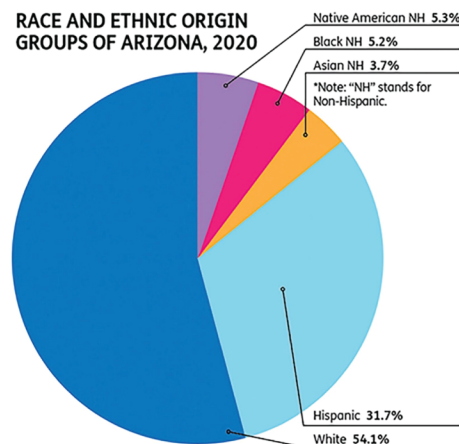
- d. Place the piece of bread covered in chocolate frosting on top of the piece of bread on the plate, bread side touching the vanilla frosting.
 - e. Repeat step d with the remaining piece of bread with vanilla frosting.
 - f. Place the last piece of bread on top of the other pieces (the materials should look like a cake when assembled).
5. Once the materials are all assembled, allow each student to use a straw to poke through the bread and frosting from the top to the bottom.
 6. Have them remove the straw from the bread and frosting.
 7. Have students discuss and record their observations in their interactive notebooks.
 8. Discuss students' observations as a class.
 9. Explain to students that observing something in multiple layers can help us understand the object better. This is how GIS technology works.
 10. Read the article. While students are reading the article, project the image "Visual Representation of Themes in a GIS." Students will use this image as a reference for the next activity.
 11. Then, give each student three page protectors. Students will draw a different layer of a map of their school, home, community, or state on each of the page protectors.
 - a. One map should include street data.
 - b. One map should include building data.
 - c. One map should include vegetation data.
 12. After completing each map, have students layer their maps and glue them in their interactive notebooks.
 13. This will provide them with an example of how GIS works.

Example of activity with multiple modalities

And, yes, there are plenty of assessment questions to help teachers gauge their students' understanding. For example, this question that has students analyze a pie chart.

7. Study the data on this chart.

RACE AND ETHNIC ORIGIN GROUPS OF ARIZONA, 2020



What is the **smallest** ethnic group represented?

- a. Asian
- b. Black
- c. Hispanic
- d. white

Example of a different modality to assess understanding

Multiple Means of Engagement

As the Connecticut State Department of Education has expressed, Studies Weekly creates a "culture of inquiry" in its curriculum, basing each week on an "essential question." Those questions are often

rooted in the students' own experience and culture, helping them to make connections between their personal lives and the curriculum. Questions permeate the lesson plans. For example:

- How does understanding location help you protect yourself? (Answers will vary but should demonstrate that students understand they need to know how to describe their location if they are lost.)
- When might it be useful to know how to read a map? (Answers will vary and should discuss the use of maps during an emergency when technology is not available. Possible answers can also discuss the difference between GPS and physical maps.)
- Draw a map of your home. Create a key that shows what parts of your home are important to you.
- How does the geography of your hometown impact your life? Consider your physical, mental, emotional, social, and academic wellness in your answer. (Answers will vary and should demonstrate the student's understanding of the way geography impacts wellness.)

Example of "essential questions"

Lesson plans are often driven by questions. For example, this activity that helps students think about what future census numbers might be based on current census numbers:

Lesson Plan:

1. Inform students that one tool the government uses to assist in measuring the movement and growth of a location is a census.
2. Ask students to read the text independently or as a class.
3. Then, show students the video "Census Intro."
4. Explain to students that often, a census is used to make predictions of growth.
5. Give each student a copy of the graphic organizer [Predicting the 2030 Census](#) and read the instructions as a class.
6. If students need more support, model the first question for the class.
7. Ask students to make population predictions of 2030 for each city, working independently or with a partner.
8. Review student responses as a class. Ask students to justify how they determined their predictions and elicit responses to the activity.

Example of question driven lesson plan

Between its colorful, entertaining, rigorous weekly student edition, its comprehensive teacher edition, and its commitment to Universal Design for Learning principles, Studies Weekly meets Connecticut's standards as an HQIM: "They are content-rich, easy-to-use resources that are closely aligned resources to rigorous standards. They are accessible, culturally relevant, and written with clear purpose, effective lesson structure, and pacing to provide flexibility for educators to meet the learning strengths, needs, curiosities and passions of all students."^[5]

References

- [1] "Design Multiple Means of Representation," CAST Universal Design for Learning Guidelines version 3.0, <https://udlguidelines.cast.org/representation/>.
- [2] "Design Multiple Means of Action and Expression," CAST Universal Design for Learning Guidelines version 3.0, <https://udlguidelines.cast.org/action-expression/>.
- [3] "Design Multiple Means of Engagement," CAST Universal Design for Learning Guidelines version 3.0, <https://udlguidelines.cast.org/engagement/>.
- [4] *K-12 Universal Curriculum Design Principles*, Connecticut State Department of Education, June 2025, p. 2, <https://portal.ct.gov/-/media/sde/ct-learning-hub/k-12-universal-curriculum-design-principles.pdf>.
- [5] *Connecticut's Framework for Accelerating Educational Opportunity and Access*, Connecticut State Department of Education, p. 19, <https://portal.ct.gov/-/media/sde/acceleratect/acceleratectframework.pdf>.