

Grade 3 Social Studies

Module 1

Geography of North America

## Module Goal

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The goal of this module is to provide information that will help educators increase their knowledge of grade-appropriate social studies concepts, knowledge, and skills to support effective planning or modification of their existing social studies instructional units for students with significant cognitive disabilities. The module includes important concepts, knowledge, and skills for the following instructional units:

- Geography
- Geography of North America

## Module Objectives

The content module supports educators' planning and implementation of instructional units in social studies by:

- Developing an understanding of the concepts and vocabulary that interconnect with information in the module units.
- Learning instructional strategies that support teaching students the concepts, knowledge, and skills related to the module units.
- Discovering ways to transfer and generalize the content, knowledge, and skills to future school, community, and work environments.

The module provides an overview of the social studies concepts, content, and vocabulary related to geography and geography of North America and provides suggested teaching strategies and ways to support transference and generalization of the concepts, knowledge, and skills. The module does not include lesson plans and is not a comprehensive instructional unit. Rather, the module provides information for educators to use when developing instructional units and lesson plans.

The module organizes the information using the following sections:

- I. Social Studies Academic Standards and Related Alternate Assessment Targets and Underlying Concepts;
- II. Connecting Concepts;
- III. Vocabulary and Background Knowledge information, including ideas to teach vocabulary;
- IV. Overview of Units' Content;
- V. Universal Design for Learning (UDL) Suggestions;
- VI. Transfer and Generalize Concepts, Knowledge, and Skills;
- VII. Concepts and Vocabulary Multi-Age Planning: Grades Three through Five; and
- VIII. Tactile Maps and Graphics.

## Section I

### Social Studies Academic Standards and Related Alternate Assessment Targets and Underlying Concepts

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It is important to know the expectations for each unit when planning for instruction. The first step in the planning process is to become familiar with the identified academic standards and related Alternate Assessment Targets (AATs) and Underlying Concepts (UCs) covered in the module. The AATs are specific

statements of knowledge and skills linked to the grade-specific social studies academic standards. The UCs are basic key ideas or concepts linked to specific AATs. UCs are a basis for developing a more complex understanding of the knowledge and skills represented in the AAT and should not be taught in isolation. It is important to provide instruction on the AAT along with the UC in order to move toward acquisition of the same concepts, knowledge, and skills.

**Table 1** includes the grade 3 academic standards and related AATs and UCs addressed by this module and organizes them by the units of study. While only the academic standards targeted for the Tennessee Comprehensive Assessment Program/Alternate (TCAP/Alt) are included, instruction on additional standards will aid in student understanding. Standards that are not included still represent important content for students to master. Therefore, the AATs and UCs included in the table do not cover all of the concepts that can be taught to support progress and understanding aligned to the standards.

The Tennessee Social Studies Academic Standards include the following codes:

- C – Civics
- E – Economics
- G – Geography
- H – History
- P – People
- TN – Tennessee

**Table 1. Social Studies Academic Standards and Related AATs and UCs <sup>1</sup>**

Academic Standards	Alternate Assessment Targets (AAT)	Underlying Concepts (UC)
<b><i>Geography</i></b>		
3.3 Use cardinal directions, map scales, legends, titles, and longitude and latitude to locate major cities and countries in the world. (G)	Identify the relative position of two major cities or countries to each other using a compass rose (i.e., east, west, north, or south of the other).	Identify a map legend or compass rose on a map.
3.4 Examine major physical and political features on globes and maps, including mountains, plains, plateaus, mesas, buttes, deserts, deltas, islands, peninsulas, basins, canyons, valleys, bays, streams, gulfs, straits, canals, seas, boundaries, cities, highways, roads, and railroads. (G)	Identify major physical features including mountains, plains, deserts, rivers, gulfs, or seas using information from a map of North America.	Identify a map or diagram representing home, school, or community.
<b><i>Geography – North America</i></b>		
3.18 Identify and locate on a map: Canada, Mexico, Central America, and the 50 states of the U.S. (G)	Identify Canada, Mexico, or the United States on a map of North America.	Identify the location of the state of Tennessee on a map of the southeastern United States.

Academic Standards	Alternate Assessment Targets (AAT)	Underlying Concepts (UC)
3.22 Identify major physical features on a map: Rivers—Colorado, Cumberland, Mississippi, Missouri, Ohio, Rio Grande, St. Lawrence, Tennessee; Mountains—Alaska Range, Appalachian, Cascade, Rockies; Bodies of Water—Arctic, Atlantic, Great Lakes, Great Salt Lake, Gulf of Mexico, Hudson Bay, Niagara Falls, Pacific; Deserts—Death Valley, Great Basin; Landforms—Grand Canyon; Caribbean Islands. (GTN)	Use a map to find the location of major physical features (e.g., Mississippi River, Appalachian Mountains, and Gulf of Mexico) in the United States.	Identify the location of a school, library or park using information from a community map.
3.26 Describe how goods and services are exchanged on local, regional, and international levels including transportation methods and bartering and monetary exchange. (CEGTN)	Identify differences in how goods (i.e., something that can be seen or touched, used or consumed; physical) and services (i.e., something that is provided or someone does for you; intangible) are exchanged.	Identify examples of goods or services.
3.28 Discuss the structure and purpose of government. (P)	Identify the roles of different branches of government (e.g., making the laws, enforcing the laws or determining if the laws are fair).	Identify the purpose of classroom rules (e.g., stay safe).

<sup>1</sup> Instruction is not intended to be limited to the concepts, knowledge, and skills represented by the AATs and UCs listed in Table 1.

## Section II

### Connecting Concepts

Grade-level social studies content includes Connecting Concepts, concepts that connect information between different people, places, events, and time periods. Helping students make connections between these types of concepts and new content information supports comprehension of the concepts, knowledge, and skills as well as transference and generalization (see Section VI for more information). Connecting Concepts that are specific to this module connect to content across the units within the module as well as across modules and across grades.

A Connecting Concept is a common link between multiple standards and units of study. The Connecting Concepts, by being revisited and linked to multiple units of study, become a strong foundation of understanding and support the students in learning new concepts. For example, understanding types of goods and services and how they are exchanged is a Connecting Concept that applies to the exchange of

goods and services experienced by students, exchange of goods and services among the early European explorers, trade between American Indians and colonists, and trade between countries in modern times. Some Connecting Concepts may apply across multiple content areas and instructional emphases (e.g., the main idea of a story might be cooperating with others).

### Teaching Connecting Concepts

The following strategies, pulled from the principles of UDL (CAST, 2011), are ways in which to teach Connecting Concepts to help students understand the concepts and make connections between different curricular content. During instruction, highlight:

- patterns (e.g., When students work with various maps, indicate that north, east, south, and west are the same on the compass rose on all the maps.),
- critical features (e.g., Use a highlighter to indicate critical information on a map the student is going to use.),
- big ideas (e.g., Discuss wants and needs and how they relate to goods and services.), and
- relationships (e.g., Make the connection between rules at school to laws the government creates).

For example, when working with land feature maps, emphasize the common features among different maps. In addition, build connections between familiar and new information (e.g., connect a map of the school that shows how to locate the gymnasium with a map showing exploration routes).

Following are **Connecting Concepts** for this Content Module: Geography and Geography – North America.

#### Students understand:

- how to think spatially and use a variety of maps and map tools (e.g., compass rose, legend)
- how to interpret physical and political features on a variety of maps
- basic economics
- types of goods and services
- the importance of trade/exchanging goods and services
- the structure and purpose of government and its relationship to democracy and citizenry

#### Connecting Concept Resources:

Grant Wiggins talks about “big ideas” in this article.

[http://www.authenticeducation.org/ae\\_bigideas/article.lasso?artid=99](http://www.authenticeducation.org/ae_bigideas/article.lasso?artid=99)

This site provides examples and printable versions of graphic organizers for social studies that can be modified to meet students’ needs.

<https://walch.com/samplepages/050078.pdf>

National Geographic has a variety of map skills for elementary students that help with spatial thinking.

<http://education.nationalgeographic.org/map-skills-elementary-students/>

Interactive Sites for Education provides interactive map activities to help students understand how to read maps. <http://interactivesites.weebly.com/maps--direction.html>

Econedlink site has a goods and services lesson with drag and drop activities.

<http://www.econedlink.org/teacher-lesson/642/Goods-Services>

## Section III

### Vocabulary and Background Knowledge

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Vocabulary is critical to building an understanding of social studies concepts, knowledge, and skills. The vocabulary words that students gain through experiences provide ways for students to comprehend new information (Sprenger, 2013). Students can better understand new vocabulary when they have some background knowledge to which they can make connections. In addition, learning new vocabulary increases students' background knowledge. Therefore, it is important to teach vocabulary purposely when introducing new concepts, knowledge, or skills (e.g., identifying landforms on a map) and in the context of the specific content (e.g., teach the term "legend" in the context of using a physical feature map).

This module includes two types of vocabulary words, both equally important to teach. The first type, **general vocabulary words**, labels groups of words that address different people, places, events, and time periods. For example, understanding the meaning of the word "river" helps students to connect many different rivers, where they are located, how they are used to transport goods, etc. The second type of vocabulary word, **specific content words**, represents groups of words that address a specific person, group of people, place, event, or time period. Specific content words are typically proper nouns, such as Mississippi River, and connect to general words. Providing instruction on general words provides background knowledge when introducing corresponding or related specific words.

#### Key Vocabulary for Instructional Units

Table 2 and Table 3 contain lists of key general vocabulary words and specific content words that are important for the units in this module. Each general vocabulary word should be taught to the student using a student-friendly description of what the word means, an example of the word, and a historical example, as appropriate.

Teach the specific content vocabulary using a student-friendly description of the word meaning and a possible connection to a general vocabulary word. Do not teach memorization of vocabulary words; instead place emphasis on understanding the word. For example, a student should be able to tell what country they live in or name another country vs. defining the word, country.

**Table 2. General Vocabulary Words**

**General Vocabulary** – words that generalize to different people, places, events, and time periods. Describe the word and provide examples (e.g., compass rose is a figure on a map that shows the directions of north, east, south, and west. *Example: The compass rose on the map shows Tennessee is south of Kentucky.*

• barter	• government	• physical features
• coast	• gulf	• plain
• community	• lake	• river
• compass rose	• landforms	• rules
• continent	• laws	• scale
• country	• legend	• sea
• desert	• map	• services
• east	• money	• south
• exchange	• mountain	• state
• globe	• north	• trade
• goods	• ocean	• west

**Table 3. Specific Content Words**

**Specific Content Words** – words that are specific to content (e.g., person, place, event). Describe the word and make the connection to a Connecting Concept when possible (e.g., executive branch connects to structure and purpose of government).

• Atlantic Ocean	• legislative branch
• Canada	• Mexico
• executive branch	• Mississippi River
• judicial branch	• North America
• Appalachian Mountains	• Pacific Ocean
• Gulf of Mexico	• United States

## Ideas to Support Vocabulary Learning

Table 4 includes ideas and examples for teaching vocabulary in a way to build conceptual understanding of the words.

**Table 4. Ideas to Teach Vocabulary Effectively (Marzano, 2004)<sup>1</sup>**

Ideas	Examples
Explain, describe, and/or give examples of the vocabulary word rather than formal definitions.	Describe and provide an example of goods, "Goods are things that people want and need. Clothes you buy at the store are goods."
Have students restate the vocabulary word in their own words. Take this opportunity to help students connect new vocabulary, especially general vocabulary, to prior knowledge.	After discussing how the legislative branch of the United States government creates laws, have students talk about how rules are made in the classroom or at school. Relate this to laws made by the government. Support students by asking questions that can be answered with yes/no responses, one word responses, phrases, and/or with use of an Alternative and Augmentative Communication (AAC) system.
Have students represent vocabulary words in a variety of ways (e.g., pictures, symbols, graphic organizers, or pictographs).	Have students complete word banks or graphic organizers for landforms using word descriptions, pictures, representative objects and connections to the words. Provide support as needed (e.g., help from peer or adult, viewing model, using AAC, etc.). (See Figure 1 Example Word Bank)
Provide multiple exposures to vocabulary words in a variety of ways. This does not suggest mass trials, rather distributed trials in different ways or contexts. Reference <a href="http://projectlearn.net.org/tutorials/learning_trials.html">http://projectlearn.net.org/tutorials/learning_trials.html</a> for information on learning trials.	<ul style="list-style-type: none"> <li>• Expose students by incorporating vocabulary into daily activities when it is appropriate.</li> <li>• Read books or watch videos related to the vocabulary and concepts.</li> <li>• Have students complete activities such as sorting words into categories or complete a simulation activity.</li> <li>• Discuss goods and services when on community or field trips.</li> <li>• Watch videos about goods and services (e.g., <a href="https://www.youtube.com/watch?v=wy0TrDCiqLw">https://www.youtube.com/watch?v=wy0TrDCiqLw</a>).</li> <li>• Sort words, pictures, or objects into goods and services.</li> <li>• Have students exchange goods and services within the classroom.</li> </ul>
Ask students to discuss the vocabulary words with each other.	<ul style="list-style-type: none"> <li>• Have students use their preferred mode of communication to share their favorite word and why with each other.</li> </ul>

Ideas	Examples
Play vocabulary word games with students.	<ul style="list-style-type: none"> <li>• Have students share their representations (e.g., pictures) with each other.</li> <li>• Have students describe a landform word and have peers guess what it is. Program AAC system or voice output switch to provide access for students as needed.</li> <li>• Have students organize vocabulary words/pictures/representative objects on a graphic organizer.</li> <li>• Have students match a description or representative picture to a word.</li> <li>• Have students select the word using their communication system (e.g., dual switch).</li> </ul>
Have students watch a dramatization or have them act out the vocabulary term.	Act out cardinal directions using a compass rose.

<sup>1</sup> Refer to Section V, Universal Design for Learning (UDL) Suggestions for additional instructional strategies.

### Vocabulary Example

Have students create a word bank of related terms (e.g., landforms). Students can write or paste descriptions of the word, draw or paste pictures of the word, and make a personal connection (e.g., visited, saw in a movie, viewed pictures, etc.). See Figure 1 for an example. Educators may need to support, modify, or adapt steps as needed for individual students. For example, one student may choose a description of the word from a choice of two; another may choose a picture to represent the word rather than drawing, etc. Two National Center and State Collaborative (NCSC) resources are available and may prove helpful for vocabulary instruction:

- Use systematic instruction as described in the NCSC Instructional Guide. <https://wiki.ncscpartners.org>
- Reference ideas in the NCSC Vocabulary and Acquisition Content Module. <https://wiki.ncscpartners.org>

Figure 1. Example Word Bank

## Word Bank

Word	Definition	Picture	Connections
desert	very dry landform with few plants		In a movie I saw
Word	Definition	Picture	Connections
mountain	high landform with peaks and valleys		vacation to the Smoky Mountains

### Vocabulary Resources:

Vocabulary.com provides explanations of words using real-world examples. Once signed in, an educator can create word lists for students. <http://www.vocabulary.com/>

Text Project provides Word Pictures that are free for educators to use. It includes word pictures for core vocabulary and various content areas including science and social studies. This link will take you to the Word Pictures page where you can select the category of words you want to use. <http://textproject.org/classroom-materials/textproject-word-pictures/>

Education Place provides a variety of graphic organizers to be used for vocabulary instruction that are free to print and copy. <http://www.eduplace.com/graphicorganizer/index.jsp>

## Section IV

### Overview of Units' Content

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This section of the module contains additional content and references to support educators' understanding and instruction of the instructional units. The information reflects important content to address the AATs and to build students' knowledge, skills, and abilities; however, it is not exhaustive and should be expanded upon as needed.

**Unit 1 – Geography:** Geography influences the development of a region as well as the interactions between people and the environment.

#### Content:

- Map elements on a variety of maps:
  - cardinal directions
  - scales
  - legends

- titles
- compass rose
- Location of major physical features on globes and maps:
  - continents
  - oceans
  - mountains
  - plains
  - deserts
  - rivers
  - gulfs
  - seas
- Location of political features on maps:
  - national boundaries
  - state boundaries
  - cities

**Unit 2 – Geography of North America:** Geography influences the development of North America as well as the interactions between people and the environment. The role of the United States government.

**Content:**

- Location of North American countries on maps
- Location of states of the U.S. on maps
- Location of major physical features of the United States on maps:
  - Mississippi River
  - Tennessee River
  - Appalachian Mountains
  - Rocky Mountains
  - Gulf of Mexico
  - Atlantic Ocean
- Location of a place (e.g., school, library, park) on a community map
- Goods and services:
  - meaning of goods and services
  - why they are exchanged
  - how they are exchanged
  - where they are exchanged
- The three branches of the government and the purpose of each:
  - executive branch
  - legislative branch
  - judicial branch
- Purpose of classroom rules

**Unit Content Resources:**

- Mr. Nussbaum Learning + Fun site includes a variety of geography activities and tools. Many include photographs and videos. <http://mrnussbaum.com/world-geography-for-kids/>. A few to highlight:
  - A tool allows the user to choose a black and white map to label, color, and add features. A short tutorial video is included. <http://mrnussbaum.com/mapbuilder2/>

- The United States section features many different interactive maps, games, worksheets, etc. <http://mrnussbaum.com/fifty-states-for-kids/>
- Free educational games for tablets. <http://mrnussbaum.com/html5.html>
- Education Place has an interactive landform region map of the United States. [http://www.eduplace.com/kids/socsci/books/applications/imaps/maps/g2\\_u2/](http://www.eduplace.com/kids/socsci/books/applications/imaps/maps/g2_u2/)
- This site provides a lesson plan on identifying landforms and bodies of water on a map. <http://pmm.nasa.gov/education/lesson-plans/identifying-landforms-and-bodies-water-map>
- Teacher Vision has a variety of printable United States maps. <https://www.teachervision.com/united-states/teacher-resources/6667.html>
- Geography Continents and Countries (may be a little advanced). <http://www.ducksters.com/geography/>
- National Geographic provides a lesson on mapping landforms. <http://education.nationalgeographic.org/activity/mapping-landforms/>
- Social Studies for Kids provides a variety of economic information. <http://www.socialstudiesforkids.com/subjects/economics.htm>
- Beacon Learning Center provides an activity on the difference between goods and services and producers and consumers. <http://www.beaconlearningcenter.com/WebLessons/BusinessBuddies/eco001.htm>
- Kids.gov lesson plan on the three branches of the government. <https://kids.usa.gov/teachers/lesson-plans/government/3-branches/index.shtml>
- This site provides information and games on the three branches of the government. <http://government.mrdonn.org/3branches.html>

## Section V

### Universal Design for Learning (UDL) Suggestions

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The three principles of UDL guide development of instruction, instructional materials, and assessments to provide the widest range of students with access to learning. Students with significant cognitive disabilities, especially students with visual and/or hearing impairments and students with complex communication needs, require additional scaffolds, adaptations, and modifications to access content and support learning. The three principles of UDL establish a framework for providing these. UDL provides guiding principles to create instructional materials and activities in a flexible manner to address the needs of different type of learners. Additionally, the flexibility allows for further individualization. Table 5 provides strategies for the UDL Principle I, **Multiple Means of Representation**: presenting information in a variety of ways to address the needs of different types of learners.

Table 6 provides strategies for the UDL Principle II, **Multiple Means of Action and Expression**: providing a variety of ways for students to interact with the instructional materials and to demonstrate understanding. Table 7 provides strategies for the UDL Principle III, **Multiple Means of Engagement**: providing a variety of ways to engage and motivate students to learn.

These strategies can assist all students in understanding the basic concepts. Some of the examples include adaptation ideas for students with vision, hearing, and/or physical limitations. Each example has a code to indicate when it includes specific adaptation ideas for these needs:

**V** = visually impaired (low vision, blind, or deaf-blind)

**H** = hearing impaired (deaf, hard of hearing, or deaf-blind)

**P** = physical disability (limited use of hands)

**Table 5. Instructional strategy ideas using the UDL Principle: Multiple Means of Representation**

Multiple Means of Representation	
Strategies	Examples
Introduce information through a multi-sensory approach (e.g., auditory, visual, tactile).	Create a three-dimensional landform map (e.g., <a href="http://www.ehow.com/how_7898709_build-landform-school-project.html">http://www.ehow.com/how_7898709_build-landform-school-project.html</a> ). <b>V</b> Play sounds that would be heard around certain landforms (e.g., running river water, ocean waves, birds in woods of mountains) while students see pictures and possibly feel representations of the landforms.
Model content through pictures, dramatization, videos, etc.	Watch a landform video such as this one with an animated character showing photographs of landforms: <a href="https://youtu.be/KWTDmg8OI_Y">https://youtu.be/KWTDmg8OI_Y</a> . Provide textured or three-dimensional representation. <b>V</b> Sign the video dialogue. <b>H</b>
Present information using modified graphic organizers (e.g., simplified organizers with pictures).	Present the three branches of government in a graphic organizer with picture of the president/White House, capitol building, and the Supreme Court building/judges representing each branch. Work with students to add the purpose of each branch.
Provide appropriate and accessible text on the content for students to listen to or read.	Paraphrase information from a textbook on large sticky notes. Place the sticky note over the original text, leaving the graphics. Write or type with a bold and plain font (e.g., Verdana, 18 pt. font) with good spacing between lines (e.g., 1.5 vs. single spacing). <b>V</b>
Teach information using songs.	Cardinal directions geography song. <a href="https://www.youtube.com/watch?v=UeeLivQH7Ok">https://www.youtube.com/watch?v=UeeLivQH7Ok</a> Goods and Services song. #7, Buying and Selling on this link: <a href="http://williamcwood.com/econed/wp-content/uploads/2011/05/EconSongs.pdf">http://williamcwood.com/econed/wp-content/uploads/2011/05/EconSongs.pdf</a> Three Branches Rap (song and video). <a href="https://www.youtube.com/watch?v=ZCB8EOY5d48">https://www.youtube.com/watch?v=ZCB8EOY5d48</a>

**Table 6. Instructional strategy ideas using the UDL Principle: Multiple Means of Action and Expression**

<b>Multiple Means of Action and Expression</b>	
<b>Strategies</b>	<b>Examples</b>
Use assistive technology to allow students to interact with the instructional materials and content.	Create a narrated slide show of common physical features, including landforms and water), using simple text and pictures. Have students use a single switch to advance slides. <b>P</b>
Present instructional materials in a manner that provides optimal access.	Place printed text and pictures on a slant board. <b>V/P</b> Attach tactile graphics or representative objects to a board with hook and loop tape and place within student's range of motion so the student can pull off each to explore and/or answer questions. <b>V/P</b>
Provide voice output devices for students to select the correct answer.	Record correct answers and distractors on a voice output multiple message switch(s) and have students answer questions using the switch. <b>V/P</b> Have students use three switches with generic labels (e.g., a, b, c; red, blue, green; or three different textures) to which they listen and then select the correct answer. <b>V/P</b>
Provide simulation activities.	Simulate exchanging goods and services, etc. Sign all conversations and decisions. <b>H</b>
Create a picture, three-dimensional model, or digital graphic organizer.	Have students sort goods and services on a T-chart using pictures. Modify by sorting objects and/or photos into two baskets. <b>V</b> Have students drag and drop pictures of goods and services into the correct side of a T-chart graphic organizer. Use an adapted mouse. <b>P</b>

**Table 7. Instructional strategy ideas using the UDL Principle: Multiple Means of Engagement**

<b>Multiple Means of Engagement</b>	
<b>Strategies</b>	<b>Examples</b>
Provide a schedule and visual timer.	Provide a schedule with tangible symbols. <b>V/P</b> Have students select the next activity on the schedule and set the timer or visual timer to indicate how long the student has before a break.
Vary the challenge and amount of information presented at a time.	Briefly introduce the branches of the U.S. government and relate them to school structure. The next time it is taught, spend a little more time on the purposes, increasing time and information as the students become more familiar.
Make connections to topics or activities that are motivating.	Have students take a favorite TV character on a virtual exploration of various landforms. Show clips from favorite movies that show landforms.
Allow choices as possible.	Allow students to choose whether to look at a book or watch a video about maps, landforms, etc., during independent work time.
Provide opportunities to work collaboratively with peers.	Provide opportunities for students to work in a general education classroom with peers when learning how to use maps, or have peer tutors come into the special education classroom to work on a map project.
Teach student self-regulation skills.	Provide students communication symbols to request a break or express feelings and model how to use them appropriately.

**UDL Resources**

The National Center on Universal Design for Learning has a plethora of information on UDL and examples and resources.

[www.udlcenter.org](http://www.udlcenter.org)

Symbaloo is a free online tool that allows an educator to create bookmarks using icons. It is easy to create and allows an educator to provide students links to sources of information that can be used for specific instructional units.

[www.symbaloo.com](http://www.symbaloo.com)

This site provides a brief description of Symbaloo and multiple ways to use the online tool.

<https://www.theedublogger.com/2014/04/09/11-ways-to-use-symbaloo-in-the-classroom/>

Perkins School for the Blind provides information on using tangible symbols to increase communication, create personal schedules, and provide choices.

<http://www.perkinselearning.org/videos/webcast/tangible-symbols>

## Section VI

### Transfer and Generalize Concepts, Knowledge, and Skills

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For learning to be meaningful for all students, including students with significant cognitive disabilities, it is important to intentionally make connections to future content, real-world application, and college and career readiness skills. For example, explain how the student can use maps in their daily lives to determine the location of animals at the zoo, to navigate a walkthrough of exhibits in a museum, or to find transportation to work and stores in the future. Additionally, the instruction of social studies concepts, knowledge, and skills may be the catalyst to developing other areas such as needed communication skills, reading/listening comprehension, age-appropriate social skills, independent work behaviors, and skills in accessing support systems. Table 8 provides instructional ideas to help transfer and generalize concepts, knowledge, and skills and suggested opportunities to embed other skills into instruction.

**Table 8. Transfer and Generalization Ideas**

<b>Area</b>	<b>Instruction</b>	<b>Opportunity to Embed Skills</b>
<b>Communication</b>	While teaching vocabulary, make connections to real-life or future opportunities to use the words (e.g., discussing a topic with co-workers).	Use the context of the content area instruction to increase language skills, work on articulation, or access alternative and augmentative communication (AAC) systems.
<b>Reading and Listening Comprehension</b>	Provide information through reading books and articles when working on reading/listening comprehension.	Provide practice on communication skills when students are answering questions about the book or article. Provide opportunities for cause and effect switch usage as students activate a recording of a social studies song.
<b>Age-Appropriate Social Skills</b>	Make connections between the Connecting Concepts and real-life experiences showing how they can help students make decisions (e.g., ability to independently locate a section of the library).	Provide opportunities to work along same-age peers during social studies instruction to practice age-appropriate social skills.
<b>Independent Work Behaviors</b>	Encourage and reinforce independent completion of tasks to build independent work skills.	Use positive behavior supports to encourage and reinforce independent work skills during social studies activities.
<b>Skills in Accessing Support Systems</b>	Encourage students to ask appropriately for assistance from peers and adults when working on the content.	Use this time to have the student work on appropriate behavior and communication skills.

## Section VII

### Concepts and Vocabulary Multi-Age Planning: Grades Three through Five

Multi-age planning requires that instructional decisions address the span of the grade levels of the students in the class. Recognizing the Connecting Concepts and the General and Specific Vocabulary that apply to multiple units within and across a grade span provides information to teach concepts that build a foundation for specific curricular content (i.e., specific people, places, events, and time periods). This section illustrates the grade-level **Connecting Concepts** and the **General and Specific Vocabulary** across grades. This view (see Tables 9 – 13) allows educators of multi-age and multi-grade classrooms to address the same or similar concepts and vocabulary to all students along with the specific curricular content.

**Table 9. Physical and Human Geography Concepts and Vocabulary**

<b>Physical and Human Geography</b>		
<i>Geographical features and the spatial organization of people and places impact different stages in the history of culture and civilization. Maps and other representations of places and regions convey the influence of geography on economic development, discovery, and use of resources by various cultures and civilizations.</i>		
<b>Grades 3 – 5 AATs and UCs</b>	<b>Concepts</b>	<b>Vocabulary</b>
<p><b>AAT:</b> Identify the relative position of two major cities or countries to each other using a compass rose (i.e., east, west, north, or south of the other). (3.3)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify a map legend or compass rose on a map.</li> </ul> <p><b>AAT:</b> Identify major physical features including mountains, plains, deserts, rivers, gulfs, or seas using information from a physical map of North America. (3.4)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify a map or diagram representing home, school, and community.</li> </ul> <p><b>AAT:</b> Identify Canada, Mexico, or the United States on a map of North America. (3.18)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify the location of the state of Tennessee on a map of the southeastern United States.</li> </ul> <p><b>AAT:</b> Use a map to find the location of major physical features (e.g., Mississippi River, Appalachian Mountains, and Gulf of Mexico) in the United States (3.22)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify the location of a school, library or park using information from a community map.</li> </ul> <p><b>AAT:</b> Use a map to find the location of major physical features (e.g., Alps, Gibraltar, Arctic Ocean, and Mediterranean Sea) of the continent of Europe. (3.42)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify bodies of water on a world map.</li> </ul> <p><b>AAT:</b> Use a map to identify major physical features (e.g., Nile River, Sahara, Kilimanjaro, Indian Ocean, and Cape of Good Hope) on the continent of Africa. (3.49)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify land masses on a world map.</li> </ul>	<p><b>Understand:</b></p> <ul style="list-style-type: none"> <li>• how to think spatially and use a variety of maps and map tools (e.g., compass rose, legend)</li> <li>• how to interpret physical and political features on a variety of maps</li> <li>• how geography and climate affect exploration</li> </ul>	<p><b>General:</b></p> <ul style="list-style-type: none"> <li>• climate</li> <li>• coast</li> <li>• community</li> <li>• compass rose</li> <li>• continent</li> <li>• country</li> <li>• desert</li> <li>• east</li> <li>• explorer</li> <li>• globe</li> <li>• gulf</li> <li>• lake</li> <li>• landforms</li> <li>• legend</li> <li>• map</li> <li>• mountain</li> <li>• north</li> <li>• ocean</li> <li>• physical features</li> <li>• plain</li> <li>• river</li> <li>• scale</li> <li>• sea</li> <li>• south</li> <li>• west</li> </ul>

<p><b>AAT:</b> Explain factors that helped people move and live west of the Appalachian Mountains (e.g., Daniel Boone and Wilderness Trail). (4.20)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify why it was important for long hunters to find a safe way across the Appalachian Mountains.</li> </ul> <p><b>AAT:</b> Identify ways geography and climate affected the experience of settlers on the overland trails to the West. (4.48)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify how travelers adapt to conditions (e.g., weather) while traveling West.</li> </ul>		<p><b>Specific:</b></p> <p>Grade 3:</p> <ul style="list-style-type: none"> <li>• Atlantic Ocean</li> <li>• Africa</li> <li>• Canada</li> <li>• Europe</li> <li>• Gulf of Mexico</li> <li>• Mexico</li> <li>• Mississippi River</li> <li>• North America</li> <li>• Pacific Ocean</li> <li>• United States</li> </ul> <p>Grade 4:</p> <ul style="list-style-type: none"> <li>• Appalachian Mountains</li> <li>• Daniel Boone</li> <li>• Wilderness Road/Trail</li> </ul>
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**Table 10. Culture Concepts and Vocabulary**

<b>Culture</b>		
<i>Advancement and growth of human culture and civilization relates to development of literature, the arts, science, mathematics, and engineering in times past and present, and affects how people live in particular places.</i>		
<b>Grades 3 – 5</b>	<b>Concepts</b>	<b>Vocabulary</b>
<p><b>AAT:</b> Use a graphic organizer to identify information about important inventors (e.g., Thomas Edison, Alexander Graham Bell, and George Washington Carver) including the effects on American society. (5.37)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify uses of important discoveries (e.g., light bulb, telephone, improving soils) in today’s world.</li> </ul> <p><b>AAT:</b> Identify important music events in Memphis. (5.64)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify an example of how Tennessee was important to popular music (e.g., Memphis as the birthplace of rock and roll music).</li> </ul>	<p><b>Understand:</b></p> <ul style="list-style-type: none"> <li>• the effect of new developments on people’s lives</li> <li>• how people and places can affect art, such as music</li> </ul>	<p><b>General:</b></p> <ul style="list-style-type: none"> <li>• invention</li> <li>• inventor</li> <li>• music</li> <li>• popular</li> <li>• rock and roll music</li> <li>• society</li> </ul> <p><b>Specific:</b> Grade 5:</p> <ul style="list-style-type: none"> <li>• Alexander Graham Bell</li> <li>• Elvis Presley</li> <li>• George Washington Carver</li> <li>• Memphis</li> <li>• Tennessee</li> <li>• Thomas Edison</li> </ul>

**Table 11. Economics Concepts and Vocabulary**

<b>Economics</b>		
<i>Human and physical capital, natural resources, and technology on a local and global scale impact production, distribution, and consumption of goods and services. Decisions about how to use resources influence the welfare of individuals and societies.</i>		
<b>Grades 3 – 5</b>	<b>Concepts</b>	<b>Vocabulary</b>
<p><b>AAT:</b> Identify differences in how goods (i.e., something that can be seen or touched, used or consumed; physical) and services (i.e., something that is provided or someone does for you; intangible) are exchanged. (3.26)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify examples of goods or services.</li> </ul> <p><b>AAT:</b> Answer explicit questions about the major imports or exports from a European country using a chart, graph or resource map. (3.44)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify an agricultural or manufactured product.</li> </ul> <p><b>AAT:</b> Answer explicit questions about the major imports or exports from an African country using a chart, graph or resource map. (3.52)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify a country’s natural resources using a resource map of an African country.</li> </ul> <p><b>AAT:</b> Identify reasons (e.g., trade, discoveries of riches) for early explorations of the Americas. (4.4)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify why people move to new places (e.g., jobs, family, schools).</li> </ul> <p><b>AAT:</b> Identify how cooperation benefited the colonists and the American Indians (e.g., fur trade and peace treaties). (4.10)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify benefits of people sharing (e.g., traditions and knowledge).</li> </ul> <p><b>AAT:</b> Identify successes (e.g., finding natural resources, mapping new areas, establishing trade) related to Lewis and Clark’s exploration. (4.47)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify reasons why people explored the western United States.</li> </ul> <p><b>AAT:</b> Contrast the economies of the North and South prior to the Civil War. (5.2)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify differences in the North and South’s resources in the early 1860’s.</li> </ul>	<p><b>Understand:</b></p> <ul style="list-style-type: none"> <li>• basic economics</li> <li>• types of goods and services</li> <li>• the importance of trading/exchanging goods and services</li> <li>• how goods and services are exchanged</li> <li>• reasons for importing or exporting</li> <li>• types of imports and exports and the countries that exchange goods</li> <li>• reasons people explore</li> <li>• reasons and challenges of exploring and moving to new places</li> <li>• benefits, reasons, and ways groups cooperate</li> <li>• ways America grew and developed over time</li> <li>• types of economies and the effects of change in an economy (e.g., jobs, where people live, what they spend money on, etc.)</li> </ul>	<p><b>General:</b></p> <ul style="list-style-type: none"> <li>• barter</li> <li>• city</li> <li>• economy</li> <li>• exchange</li> <li>• exports</li> <li>• farm</li> <li>• goods</li> <li>• imports</li> <li>• industry</li> <li>• money</li> <li>• natural resource</li> <li>• services</li> <li>• suburbs</li> <li>• trade</li> <li>• treaties</li> <li>• war</li> </ul> <p><b>Specific:</b></p> <p>Grade 3:</p> <ul style="list-style-type: none"> <li>• Africa</li> <li>• Europe</li> </ul> <p>Grade 4:</p> <ul style="list-style-type: none"> <li>• American Indians</li> <li>• Lewis and Clark</li> <li>• North America</li> </ul> <p>Grade 5:</p> <ul style="list-style-type: none"> <li>• Civil War</li> <li>• Great Depression</li> <li>• North (section during Civil War)</li> </ul>

**Table 12. Economics Concepts and Vocabulary - continued**

<b>Economics</b>		
<i>Human and physical capital, natural resources, and technology on a local and global scale impact production, distribution, and consumption of goods and services. Decisions about how to use resources influence the welfare of individuals and societies.</i>		
<p><b>AAT:</b> Identify changes to the economy (e.g., from farming to industry and mechanization) in the South or in Tennessee following the Civil War. (5.27)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify an example of industry (e.g., Coca Cola bottling, mining on the Cumberland Plateau, or coal and iron processing) or agriculture in Tennessee.</li> </ul> <p><b>AAT:</b> Explain how changes in jobs (e.g., less jobs and different types of jobs) during the Great Depression affected how people lived. (5.49)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify the importance of jobs for individuals or a community.</li> </ul> <p><b>AAT:</b> Identify the key events during the Civil Rights Movement (i.e., actions of Dr. Martin Luther King, Jr. and Rosa Parks). (5.65)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify a struggle during the Civil Rights Movement (i.e., segregation on buses and use of public facilities).</li> </ul>		<ul style="list-style-type: none"> <li>• South (section during Civil War)</li> <li>• World War II</li> </ul>

**Table 13. Civics and Politics Concepts and Vocabulary**

<b>Civics and Politics</b>		
<i>Responsible and effective citizens understand structures of power and authority and the principles they reflect; their role within a community, a nation, and the world; and develop civic efficacy. Connections to the past and the way governments, principles, and traditions have developed impact current societies.</i>		
<b>Grades 3 – 5</b>	<b>Concepts</b>	<b>Vocabulary</b>
<p><b>AAT:</b> Identify the roles of different branches of government (e.g., making the laws, enforcing the laws or determining if the laws are fair). (3.28)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify the purpose of classroom rules (e.g., stay safe).</li> </ul> <p><b>AAT:</b> Identify how the Declaration of Independence contributed to the development of American Democracy by breaking the colonies away from England. (4.28)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify the Pledge of Allegiance as an expression of American democracy.</li> </ul> <p><b>AAT:</b> Identify the role of Tennessee in granting women the right to vote. (5.46)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Demonstrate an understanding that citizens make choices by voting.</li> </ul>	<p><b>Understand:</b></p> <ul style="list-style-type: none"> <li>• the structure and purpose of government and its relationship to democracy and citizenry</li> <li>• how the United States of America became an independent country and a democracy</li> <li>• citizens of the United States have rights and responsibilities</li> </ul>	<p><b>General:</b></p> <ul style="list-style-type: none"> <li>• democracy</li> <li>• government</li> <li>• laws</li> <li>• responsibility</li> <li>• rights</li> <li>• vote</li> </ul> <p><b>Specific:</b></p> <p>Grade 3</p> <ul style="list-style-type: none"> <li>• executive branch</li> <li>• judicial branch</li> <li>• legislative branch</li> <li>• United States</li> </ul> <p>Grade 4:</p> <ul style="list-style-type: none"> <li>• Declaration of Independence</li> </ul> <p>Grade 5:</p> <ul style="list-style-type: none"> <li>• Perfect 36</li> <li>• women’s suffrage</li> </ul>

**Table 13. History: Change, Continuity, and Context Concepts and Vocabulary**

<b>History: Change, Continuity, and Context</b>		
<i>Historical events, the processes of change and continuity over time, the context within which events occur, and the significance of the contributions by individuals from various ethnic, racial, religious, and socioeconomic groups impact the development of civilizations and societies around the world.</i>		
<b>Grades 3 – 5</b>	<b>Concepts</b>	<b>Vocabulary</b>
<p><b>AAT:</b> Identify reasons (e.g., religious freedom, economic opportunity, better life) for which people came to the colonies. (4.18)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify challenges with moving to a new place.</li> </ul> <p><b>AAT:</b> Identify causes of the American Revolution (e.g., Stamp Act and taxes on tea). (4.23)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify why the colonists were not happy.</li> </ul> <p><b>AAT:</b> Identify the states of the Southwest Territory (Mississippi, Kentucky, Tennessee, and Alabama) on a historical map. (4.45)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify the location of Tennessee on a historical map.</li> </ul> <p><b>AAT:</b> Identify how the Indian Removal Act affected the American Indians. (4.56)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify on a historical map where the Cherokee people lived before and after the Indian Removal Act.</li> </ul> <p><b>AAT:</b> Identify differences between East Tennessee and West Tennessee regarding the issue of secession. (5.6)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify reasons why Tennessee seceded from the Union.</li> </ul> <p><b>AAT:</b> Explain the importance of the role Abraham Lincoln, Jefferson Davis, Frederick Douglass, or Clara Barton had during the Civil War. (5.12)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify a main role of a leader in a community.</li> </ul> <p><b>AAT:</b> Explain the importance of Sam Watkins’ documentation of the events of the Civil War. (5.15)</p> <ul style="list-style-type: none"> <li>• <b>UC:</b> Identify what it was like to be a Tennessee soldier in the Civil War.</li> </ul>	<p><b>Understand:</b></p> <ul style="list-style-type: none"> <li>• reasons and challenges of exploring and moving to new places</li> <li>• causes of disagreements and conflict between countries and groups of people</li> <li>• ways America grew and developed over time</li> <li>• how expansion of the people in America affected American Indians</li> <li>• importance of people’s actions in history</li> </ul>	<p><b>General:</b></p> <ul style="list-style-type: none"> <li>• acts</li> <li>• colonies</li> <li>• document</li> <li>• economics</li> <li>• freedom</li> <li>• jobs</li> <li>• politician</li> <li>• religion</li> <li>• revolution</li> <li>• rights</li> <li>• secession</li> <li>• taxes</li> </ul> <p><b>Specific:</b></p> <p>Grade 4:</p> <ul style="list-style-type: none"> <li>• Alabama</li> <li>• American Indians</li> <li>• American Revolution</li> <li>• England</li> <li>• Indian Removal Act</li> <li>• Kentucky</li> <li>• Mississippi</li> <li>• Southwest Territory</li> <li>• Stamp Act</li> <li>• Tennessee</li> </ul> <p>Grade 5:</p> <ul style="list-style-type: none"> <li>• Abraham Lincoln</li> <li>• Civil War</li> <li>• Clara Barton</li> <li>• East Tennessee</li> <li>• Frederick Douglass</li> <li>• Jefferson Davis</li> <li>• Sam Watkins</li> <li>• West Tennessee</li> </ul>

## Section VIII

### Tactile Maps and Graphics

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The maps and graphics guidelines will help create tactile versions of instructional maps, diagrams, models, and timelines to use with students who are blind or deaf-blind. The tactile maps and graphics may be beneficial to other students as well. A tactile graphic is a representation of a graphic (e.g., picture, drawing, diagram, map, etc.) in a form that provides access through touch. It is not an exact copy of the graphic. The section provides basic guidance and links to more comprehensive resources.

#### Importance of Tactile Maps and Graphics

It is important to provide tactile graphics for young readers (BANA, 2010). It helps students understand and gain information when presented with science and social studies concepts, knowledge, and skills. Science instruction often presents diagrams (e.g., water cycle) and two-dimensional models of living and nonliving things (e.g., model of cell) to teach the related concepts. Social studies instruction often uses maps and timelines to illustrate where and when people existed and events occurred. The following guidance includes information to build upon when creating tactile graphics.

#### Tactile Graphic Guidance

1. **Determine need for graphic:** When encountering graphics in instructional materials, determine if the graphic is essential to understanding the concept. The Braille Authority of North America (2010) provides a decision tree to help in this determination. It can be accessed online at <http://www.brailleauthority.org/tg/web-manual/index.html> by selecting “Unit 1 Criteria for Including a Tactile Graphic.”
2. **Consult with the local educator trained to work with students with visual impairments.**
3. **Determine the essential information in the graphic.** Read the surrounding information and the caption to determine which information in the graphic to exclude. For example, a map to illustrate location of key countries would not need state lines and capital cities and may not need all of the surrounding countries.
4. **Reduce unnecessary detail in the graphic.** Identify details that are not necessary for interpreting the information in the graphic. For example, a model of the water cycle may show crevices on the mountains, leaves on a tree, and waves in an ocean. Eliminate unnecessary details, as they are difficult to interpret tactilely.
5. **Remove frames or image outlines if they serve no purpose.** Ensure that all lines are necessary (e.g., line that indicates a body of water), and remove any that are not.
6. **Modify the size of the graphic.** Modify the graphic as needed to reduce clutter and allow a blank space between adjacent textures. Additionally, consider the size of the student’s hand.
7. **Use solid shapes as feasible.** When solid shapes do not clearly represent the information, use clear solid lines.
8. **Systematically teach exploration and interpretation of tactile graphics.** Systematic instruction and repetition are important when teaching a student to understand a tactile graphic. Pairing the tactile graphic with a 3-dimensional object may help (e.g., pair a raised line drawing of a pencil, an example of goods, with a pencil).

## Specific Graphic Type Guidance

Following is information for specific types of graphics that may support instruction in science and social studies.

### Graphic Organizers/Concept Maps

- It is best to present information to compare or make connections in a tactile graphic. A tactile graphic presents the information in a spatial display and aids in comparison better than a list.

### Diagrams/Models

- Limit the number of areas, lines, and labels. Having more than five makes interpretation difficult.
- Consider pairing a tactile graphic with a 3-dimensional model.

### Timelines

- Present timelines in the same direction every time (i.e., horizontal or vertical).

### Maps

- Distinguish water from land using a consistent background texture for the water.
- Align the direction of the compass rose arrows with the lines of longitude and latitude on the map.

## Creating Tactile Graphics

Following are some ways to create tactile graphics. Additional information can be found at [www.tactilegraphics.org](http://www.tactilegraphics.org).

### Commercial products:

- Capsule paper or swell paper – print
- Thermoform

### Textured shapes can be made from:

- Sticky back textured papers found at craft stores
- Corrugated cardboard
- Fabric with texture (e.g., corduroy, denim)
- Silk leaves
- Cork
- Felt
- Vinyl
- Mesh tape (used for drywall)
- Sandpaper

### Raised lines can be made from:

- Glue (best not to use water-based glue)
- Wax pipe cleaners

## Resources

Creating Tactile Graphics, created by the High Tech Center Training Unit, provides basic principles of tactile graphics, characteristics of good tactile graphics, the planning process, guidelines for designs, and more. [http://www.htctu.net/trainings/manuals/alt/Tactile\\_Graphics.pdf](http://www.htctu.net/trainings/manuals/alt/Tactile_Graphics.pdf)

The Texas School for the Blind and Visually Impaired provided basic principles for Preparing Tactile Graphics, element arrangement on a tactile graphic, resources for preparing quality graphics, etc. <http://www.tsbvi.edu/graphics-items/1465-basic-principles-for-preparing-tactile-graphics>

Perkins School for the Blind has short videos that explain the importance of tactile graphics and information on spatial relationships and graphic literacy, moving from models to graphics, and strategies for reading tactile graphics. <http://www.perkinselearning.org/videos/webcast/teaching-tactile-graphics>

## References

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## Picture Citations

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