

Grade 3 Social Studies
Module 2

Geography of Europe and Africa

Module Goal

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 of Europe
- Geography of Africa

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 of Europe and Africa 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

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 ¹

Academic Standards	Alternate Assessment Targets (AAT)	Underlying Concepts (UC)
<i>Geography of Europe</i>		
3.42 Identify major physical features of the continent: Mountains—Alps, Gibraltar; Bodies of Water—Arctic Ocean, Mediterranean Sea. (G)	Use a map to find the location of major physical features (i.e., Alps, Gibraltar, Arctic Ocean, and Mediterranean Sea) of the continent of Europe.	Identify bodies of water on a world map.
3.44 Interpret a chart, graph, or resource map of major imports and exports. (EG)	Answer explicit questions about the major imports or exports from a European country using a chart, graph or resource map.	Identify an agricultural or manufactured product.
<i>Geography of Africa</i>		
3.49 Identify major physical features of the continent: Rivers—Congo, Niger, Nile; Mountains—Kilimanjaro, Mt. Kenya, Atlas Mountains; Deserts—Sahara; Bodies of Water—Indian Ocean, Lake Victoria, Southern Ocean; Landforms—Cape of Good Hope. (G)	Use a map to identify major physical features (i.e., Nile River, Sahara, Kilimanjaro, Indian Ocean, and Cape of Good Hope) on the continent of Africa.	Identify land masses on a world map.
3.52 Interpret a chart, graph, or resource map of major imports and exports. (EG)	Answer explicit questions about the major imports or exports from an African country using a chart, graph or resource map.	Identify a country’s natural resources using a resource map of an African country.

¹ 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 students in learning new concepts. For example, understanding how to interpret a variety of information on a map is a Connecting Concept that applies to identifying routes of historical explorers, resources imported and exported, political boundaries of colonies, territories, and states, etc. 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 physical features such as rivers will appear in a similar way across all the maps.),
- critical features (e.g., Use a highlighter to indicate critical information on a map or chart the student is going to use.),
- big ideas (e.g., Countries can help each other by trading goods and services.), and
- relationships (e.g., Make the connection between how countries cooperate when importing/exporting goods to trading a book or markers with a friend.).

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 import or export routes).

Following are **Connecting Concepts** for this Content Module: Geography of Europe and Africa.

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
- how to interpret a variety of information (e.g., resources, economics, cultural, historical) on maps
- basic economics
- types of goods and services

- how goods and services are exchanged
- the importance of trading/exchanging goods and services
- reasons for importing or exporting
- types of imports and exports and the countries that exchange goods
- benefits, reasons, and ways groups cooperate

Connecting Concept Resources:

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

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

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 (Sprengr, 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 Nile 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., Export is shipping goods produced in one country to another country to sell or trade. *Example: Cars built in Tennessee are exported to Europe*).

• bodies of water	• imports	• physical feature
• continent	• lake	• plain
• desert	• landforms	• river
• exports	• mountain	• sea
• goods	• natural resource	• services
• gulf	• ocean	• trade

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., Cape of Good Hope connects to interpreting physical and political features on a variety of maps).

• Africa	• Kilimanjaro
• Alps	• Mediterranean Sea
• Arctic Ocean	• Nile River
• Cape of Good Hope	• North America
• Europe	• Sahara
• Gibraltar	• South America
• Indian Ocean	

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)¹

Ideas	Examples
Explain, describe, and/or give examples of the vocabulary word rather than formal definitions.	Describe and provide an example of services, "Service is doing something for someone. Teachers offer a service when they read books and teach students about math."
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.	Have students tell what a river is. Show them pictures of a local river and use words to describe it or compare a river to other bodies of water. 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 graphic organizers to indicate imports and exports from two different countries using words, pictures, or representative objects. Provide support as needed (e.g., help from peer or adult, viewing model, using AAC, etc.). (See Figure 1. Example graphic organizer)
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 http://projectlearn.net.org/tutorials/learning_trials.html for information on learning trials.	<ul style="list-style-type: none">• Expose students by incorporating vocabulary into daily activities when it is appropriate.• Read books or watch videos related to the vocabulary and concepts.• Have students move pictures of products from a map of one country to another country while talking about the terms: trade, import, and export.• Discuss products at the grocery store that have been imported from other countries.• Have students import and export goods or services within the school.
Ask students to discuss the vocabulary words with each other.	<ul style="list-style-type: none">• Have students use their preferred mode of communication to share their favorite word and explain why with each other.• Have students share representations (e.g., pictures) of their favorite word with each other.

Ideas	Examples
Play vocabulary word games with students.	<ul style="list-style-type: none"> • 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. • Have students match a description or representative picture to a word. • Have students select the word using their communication system (e.g., dual switch).
Have students watch a dramatization or have them act out the vocabulary term.	Have students act out trading with familiar goods or services.

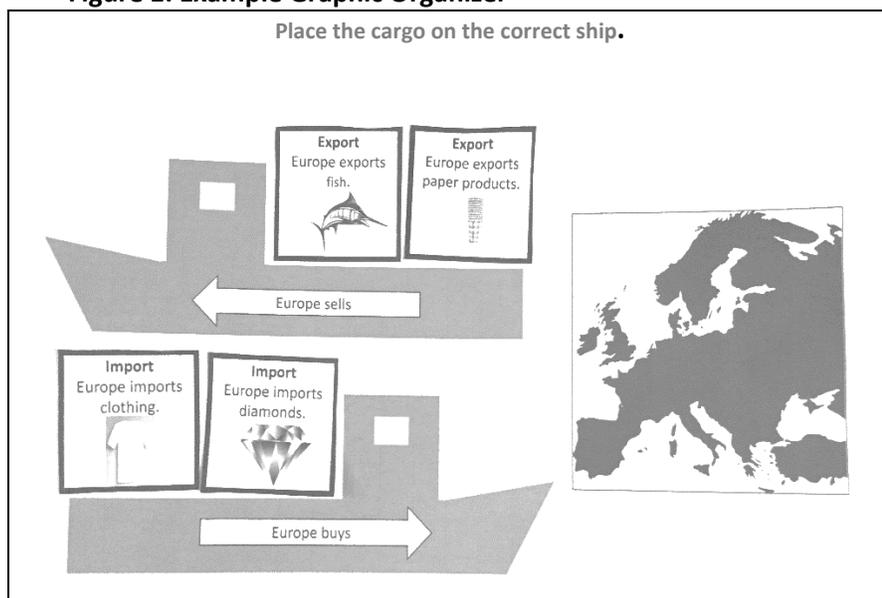
¹ Refer to Section V, Universal Design for Learning (UDL) Suggestions for additional instructional strategies.

Vocabulary Example

To build understanding of the words, “export” and “import,” have students complete a graphic organizer by placing goods that are marked as exports on the ship leaving Europe and imports on the ship heading into Europe. 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 have the cards mounted on thick cardboard to ease manipulation; another student may complete a digital version, 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 Graphic Organizer



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>

Directions and link to creating an online memory game that can be used for vocabulary or concepts.

https://www.youtube.com/watch?v=XwNAX26J_oQ and <http://matchthememory.com/>

Section IV

Overview of Units' Content

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 of Europe: Geography influences the development of Europe as well as the interactions between people and the environment.

Content:

- Map elements are included on a variety of maps:
 - cardinal directions
 - scales
 - legends
 - titles
 - compass rose
- Major European physical features can be located on globes and maps:
 - Alps,
 - Gibraltar,
 - Arctic Ocean, and
 - Mediterranean Sea
- European import and export information can be found on charts, graphs, or resource maps
- Importing and exporting help a country's economy, lives of people, and the environment
- Some products are agricultural and some are manufactured.

Unit 2 – Geography of Africa: Geography influences the development of Africa as well as the interactions between people and the environment.

Content:

- Major African physical features can be located on globes and maps:
 - Congo River
 - Niger River
 - Nile River
 - Sahara Desert
 - Mount Kilimanjaro
 - Mt. Kenya
 - Atlas Mountains
 - Indian Ocean
 - Lake Victoria
 - Southern Ocean
 - Cape of Good Hope
- African import and export information can be found on charts, graphs, or resource maps.
- African natural resources can be found on a resource map.

Unit Content Resources:

Maps and Map Skills:

- 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/>
 - Free educational games for tablets. <http://mrnussbaum.com/html5.html>
- Education Place provides outline maps of continents, including Europe and Africa. <https://www.eduplace.com/ss/maps/>
- 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>
- Econedlink provides a lesson on imports and exports that has an interactive export map. <http://www.econedlink.org/lesson/400/Coming-Going-Imports-Exports-Throughout-World>

Economics: Resources, Imports, and Exports

- Hub Pages has information on imports, exports, and transportation that includes videos of ship and train transportation. <http://hubpages.com/education/Learn-About-Imports-and-Exports-for-Kids>
- Information on reading a resource map. <http://education.nationalgeographic.org/activity/reading-resource-map/>
- Information on the geography, natural resources, industries, agriculture, imports, and exports of countries in Europe is provided in the World Factbook. https://www.cia.gov/library/publications/the-world-factbook/wfbExt/region_eur.html
- Information on the geography, natural resources, industries, agriculture, imports, and exports of countries in Africa is provided in the World Factbook. https://www.cia.gov/library/publications/resources/the-world-factbook/wfbExt/region_afr.html
- Education World has a lesson on global economy that could be easily adapted for resources, imports, and exports. http://www.educationworld.com/a_lesson/02/lp287-02.shtml

Geography

- This site has a variety of geography games, including games for Africa and Europe. http://www.learninggamesforkids.com/geography_games.html

- This site provides facts about Africa and includes photos. <http://interesting-africa-facts.com/index.html>

Section V

Universal Design for Learning (UDL) Suggestions

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 types 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).	Demonstrate relative height of the Alps compared to the Appalachian Mountains using modeling clay and the relative length of the Nile River to the Mississippi River using rope. V Have students help create (http://www.education.com/activity/article/salt-dough-state/) and explore relief maps of Europe and Africa. V
Model content through pictures, dramatization, videos, etc.	Watch video on the Arctic Ocean (https://www.youtube.com/watch?v=umAeFKF2uxA) Provide sensory information as students listen (e.g., cold water, wind from a fan). V Sign the video dialogue. H
Present information using modified graphic organizers (e.g., simplified organizers with pictures).	Present import and export information in graphs (e.g., https://nces.ed.gov/nceskids/createagraph/), charts (e.g., http://www.readwritethink.org/files/resources/printouts/T-Chart.pdf), and resource maps (e.g., http://www.mapsofworld.com/thematic-maps/natural-resources-maps/). Create textures for graph elements. V
Provide appropriate and accessible text on the content for students to listen to or read.	Paraphrase information from a web page (e.g., http://textcompactor.com/) V Provide digital text in which pages can be turned using an adapted switch. P
Teach information using songs.	The map features song. https://www.youtube.com/watch?v=A4GMno9p4g4 Landforms song. http://songstoteach.com/song-lyrics/social-studies-songs/landforms/

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

Multiple Means of Action and Expression	
Strategies	Examples
Use assistive technology to allow students to interact with the instructional materials and content.	Have students explore Europe and Africa on Google Earth by locating the continents and zooming in to see land features and photos. Have students use an adapted mouse (e.g., trackball) as needed. P
Present instructional materials in a manner that provides optimal access.	Place printed text and pictures on a slant board. V/P Place labels of European or African land features on small three-dimensional blocks and a map of Europe and Africa. Have students place the land features on the correct continent. P
Provide voice output devices for students to select the correct answer.	Record the continents of or countries in Europe and Africa on a multiple message voice output switch(s) and have students use the switch to indicate which continent/country is the location of a given land feature. V/P 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. V/P
Provide simulation activities.	Simulate importing and exporting goods (e.g., adapted versions of http://www.econedlink.org/teacher-lesson/855/Trading-Game or http://education.nationalgeographic.org/activity/the-trading-game/). Sign all conversations. H
Create a picture, three-dimensional model, or digital graphic organizer.	Have students sort pictures or representative objects onto a map of Europe or Africa according to the correct location (e.g., textured representation of the Nile River on Africa). Use tactile map and objects (see Section VIII, Tactile Maps and Graphics in this document for additional information). V Have students sort agricultural and manufactured products on a T-chart using pictures. Modify by sorting objects and/or photos into two baskets. V Have students drag and drop pictures of agricultural and manufactured products into the correct side of a T-chart graphic organizer. Use an adapted mouse. P

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

Multiple Means of Engagement	
Strategies	Examples
Provide a schedule and visual timer.	Have students use a mini-schedule or a first-then schedule for each content instructional session. Provide a schedule with tangible symbols. V/P 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.	Have students work on imports separately from exports before introducing together.
Make connections to topics or activities that are motivating.	Help students identify where their clothing, gadgets, and toys come from and connect that to importing. Show a favorite movie that has been dubbed in another language and connect that to exporting.
Allow choices as possible.	Allows students to choose where to sit or a sensory item to hold during instruction.
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 resource 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

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

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>

Autism Classroom Resources provides information on first-then schedules.

<http://www.autismclassroomresources.com/visual-schedule-series-first-then/>

Section VI

Transfer and Generalize Concepts, Knowledge, and Skills

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

Area	Instruction	Opportunity to Embed Skills
Communication	While teaching vocabulary, make connections to real-life or future opportunities to use the words (e.g., following directions, watching a movie, talking 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.
Reading and Listening Comprehension	Provide information through reading books and articles on land features (e.g., Sahara, Arctic Ocean) in Europe and Africa when working on reading/listening comprehension.	Provide practice on communication skills when students are answering questions about the book or article. Provide practice on fine motor skills by having the student place pictures of imports glued on clothespins on a map.
Age-Appropriate Social Skills	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.
Independent Work Behaviors	Encourage and reinforce independent completion of tasks to build independent work skills (e.g., sorting agricultural and manufactured goods).	Use positive behavior supports to encourage and reinforce independent work skills during social studies activities.
Skills in Accessing Support Systems	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

Physical and Human Geography		
<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>		
Grades 3 – 5 AATs and UCs	Concepts	Vocabulary
<p>AAT: 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"> • UC: Identify a map legend or compass rose on a map. <p>AAT: 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"> • UC: Identify a map or diagram representing home, school, and community. <p>AAT: Identify Canada, Mexico, or the United States on a map of North America. (3.18)</p> <ul style="list-style-type: none"> • UC: Identify the location of the state of Tennessee on a map of the southeastern United States. <p>AAT: 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"> • UC: Identify the location of a school, library or park using information from a community map. <p>AAT: 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"> • UC: Identify bodies of water on a world map. <p>AAT: 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"> • UC: Identify land masses on a world map. 	<p>Understand:</p> <ul style="list-style-type: none"> • 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 • how to interpret a variety of information (e.g., resources, economics, cultural, historical) using maps • how geography and climate affect exploration 	<p>General:</p> <ul style="list-style-type: none"> • bodies of water • climate • coast • community • compass rose • continent • country • desert • east • explorer • globe • gulf • lake • landforms • legend • map • mountain • north • ocean • physical feature • plain • river • scale • sea • south

<p>AAT: 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"> • UC: Identify why it was important for long hunters to find a safe way across the Appalachian Mountains. <p>AAT: 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"> • UC: Identify how travelers adapt to conditions (e.g., weather) while traveling West. 		<ul style="list-style-type: none"> • west <p>Specific:</p> <p>Grade 3:</p> <ul style="list-style-type: none"> • Atlantic Ocean • Africa • Alps • Arctic Ocean • Canada • Cape of Good Hope • Europe • Gibraltar • Gulf of Mexico • Indian Ocean • Kilimanjaro • Mediterranean Sea • Mexico • Mississippi River • Nile River • North America • Pacific Ocean • Sahara • South America • United States <p>Grade 4:</p> <ul style="list-style-type: none"> • Appalachian Mountains • Daniel Boone • Wilderness Road/Trail
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Table 10. Culture Concepts and Vocabulary

Culture		
<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>		
Grades 3 – 5	Concepts	Vocabulary
<p>AAT: 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"> • UC: Identify uses of important discoveries (e.g., light bulb, telephone, improving soils) in today’s world. <p>AAT: Identify important music events in Memphis. (5.64)</p> <ul style="list-style-type: none"> • UC: Identify an example of how Tennessee was important to popular music (e.g., Memphis as the birthplace of rock and roll music). 	<p>Understand:</p> <ul style="list-style-type: none"> • the effect of new developments on people’s lives • how people and places can affect art, such as music 	<p>General:</p> <ul style="list-style-type: none"> • invention • inventor • music • popular • rock and roll music • society <p>Specific: Grade 5:</p> <ul style="list-style-type: none"> • Alexander Graham Bell • Elvis Presley • George Washington Carver • Memphis • Tennessee • Thomas Edison

Table 11. Economics Concepts and Vocabulary

Economics		
<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>		
Grades 3 – 5	Concepts	Vocabulary
<p>AAT: 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"> • UC: Identify examples of goods or services. <p>AAT: 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"> • UC: Identify an agricultural or manufactured product. <p>AAT: 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"> • UC: Identify a country’s natural resources using a resource map of an African country. <p>AAT: Identify reasons (e.g., trade, discoveries of riches) for early explorations of the Americas. (4.4)</p> <ul style="list-style-type: none"> • UC: Identify why people move to new places (e.g., jobs, family, schools). <p>AAT: 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"> • UC: Identify benefits of people sharing (e.g., traditions and knowledge). <p>AAT: 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"> • UC: Identify reasons why people explored the western United States. <p>AAT: Contrast the economies of the North and South prior to the Civil War. (5.2)</p> <ul style="list-style-type: none"> • UC: Identify differences in the North’s and South’s resources in the early 1860s. 	<p>Understand:</p> <ul style="list-style-type: none"> • basic economics • types of goods and services • the importance of trading/exchanging goods and services • how goods and services are exchanged • reasons for importing or exporting • types of imports and exports and the countries that exchange goods • reasons people explore • reasons and challenges of exploring and moving to new places • benefits, reasons, and ways groups cooperate • ways America grew and developed over time • types of economies and the effects of change in an economy (e.g., jobs, where people live, what they spend money on, etc.) 	<p>General:</p> <ul style="list-style-type: none"> • barter • city • economy • exchange • exports • farm • goods • imports • industry • money • natural resource • services • trade • treaties • war <p>Specific:</p> <p>Grade 3:</p> <ul style="list-style-type: none"> • Africa • Europe <p>Grade 4:</p> <ul style="list-style-type: none"> • American Indians • Lewis and Clark • North America <p>Grade 5:</p> <ul style="list-style-type: none"> • Civil War • Great Depression • North (section during Civil War)

Economics

AAT: 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)

- **UC:** Identify an example of industry (e.g., Coca Cola bottling, mining on the Cumberland Plateau, or coal and iron processing) or agriculture in Tennessee.

AAT: Explain how changes in jobs (e.g., less jobs and different types of jobs) during the Great Depression affected how people lived. (5.49)

- **UC:** Identify the importance of jobs for individuals or a community.

AAT: Identify the key events during the Civil Rights Movement (i.e., actions of Dr. Martin Luther King, Jr. and Rosa Parks). (5.65)

- **UC:** Identify a struggle during the Civil Rights Movement (i.e., segregation on buses and use of public facilities).

- South (section during Civil War)
- World War II

Table 12. Civics and Politics Concepts and Vocabulary

Civics and Politics		
<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>		
Grades 3 – 5	Concepts	Vocabulary
<p>AAT: 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"> • UC: Identify the purpose of classroom rules (e.g., stay safe). <p>AAT: 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"> • UC: Identify the Pledge of Allegiance as an expression of American democracy. <p>AAT: Identify the role of Tennessee in granting women the right to vote. (5.46)</p> <ul style="list-style-type: none"> • UC: Demonstrate an understanding that citizens make choices by voting. 	<p>Understand:</p> <ul style="list-style-type: none"> • the structure and purpose of government and its relationship to democracy and citizenry • how the United States of America became an independent country and a democracy • citizens of the United States have rights and responsibilities 	<p>General:</p> <ul style="list-style-type: none"> • democracy • government • laws • responsibility • rights • vote <p>Specific:</p> <p>Grade 3:</p> <ul style="list-style-type: none"> • executive branch • judicial branch • legislative branch • United States <p>Grade 4:</p> <ul style="list-style-type: none"> • Declaration of Independence <p>Grade 5:</p> <ul style="list-style-type: none"> • Perfect 36 • women’s suffrage

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

History: Change, Continuity, and Context		
<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>		
Grades 3 – 5	Concepts	Vocabulary
<p>AAT: 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"> • UC: Identify challenges with moving to a new place. <p>AAT: Identify causes of the American Revolution (e.g., Stamp Act and taxes on tea). (4.23)</p> <ul style="list-style-type: none"> • UC: Identify why the colonists were not happy. <p>AAT: 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"> • UC: Identify the location of Tennessee on a historical map. <p>AAT: Identify how the Indian Removal Act affected the American Indians. (4.56)</p> <ul style="list-style-type: none"> • UC: Identify on a historical map where the Cherokee people lived before and after the Indian Removal Act. <p>AAT: Identify differences between East Tennessee and West Tennessee regarding the issue of secession. (5.6)</p> <ul style="list-style-type: none"> • UC: Identify reasons why Tennessee seceded from the Union. <p>AAT: 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"> • UC: Identify a main role of a leader in a community. <p>AAT: Explain the importance of Sam Watkins’ documentation of the events of the Civil War. (5.15)</p> <ul style="list-style-type: none"> • UC: Identify what it was like to be a Tennessee soldier in the Civil War. 	<p>Understand:</p> <ul style="list-style-type: none"> • reasons and challenges of exploring and moving to new places • causes of disagreements and conflict between countries and groups of people • ways America grew and developed over time • how expansion of the people in America affected American Indians • importance of people’s actions in history 	<p>General:</p> <ul style="list-style-type: none"> • acts • colonies • document • economics • freedom • jobs • politician • religion • revolution • rights • secession • taxes <p>Specific:</p> <p>Grade 4:</p> <ul style="list-style-type: none"> • Alabama • American Indians • American Revolution • England • Indian Removal Act • Kentucky • Mississippi • Southwest Territory • Stamp Act • Tennessee <p>Grade 5:</p> <ul style="list-style-type: none"> • Abraham Lincoln • Civil War • Clara Barton • East Tennessee • Frederick Douglass • Jefferson Davis • Sam Watkins • West Tennessee

Section VIII

Tactile Maps and Graphics

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 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.

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

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>

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Prepared by edCount, LLC in collaboration with Educational Testing Service as part of the TCAP/Alt Science and Social Studies contract.

