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I. An Introduction to Langscape

WELCOME
Welcome to the Langscape K-12 Teacher’s Manual! Langscape is an exciting new online portal for global language information and mapping data covering all the world’s known living languages. The resources Langscape provides serve various uses both within and beyond the language science community, including numerous potential applications that are yet to be explored. Before we go into detail about the educational opportunities that Langscape offers, we would like to give you a sense of what Langscape is and what our goals are for the project.

Who We Are:
Langscape is a comprehensive database of the world’s languages that integrates global language and mapping information. Based at the University of Maryland’s Language Science Center, the database was first opened to the public in April 2014. The materials and tools that Langscape provides offer various potential applications in a wide range of fields including education, linguistic analysis, language documentation, language learning, and language technology. Langscape can also serve as a tool for cross-disciplinary analysis with broader applications in areas such as humanitarian efforts, economics, anthropology, crisis reaction, as well as government and national security needs.

Our Mission:
The goal of the Langscape project is to gather, connect, and share integrated global language and mapping information in a freely-accessible, open format. The project seeks to improve linguistic understanding, raise awareness of language diversity, and encourage the development and dissemination of materials and tools for language documentation, learning, and analysis. The Langscape project hopes not only to bring together people who work in different areas of language science but also to provide opportunities for cross-disciplinary connection and discovery. Our long-term vision is to provide global access to linguistic knowledge by serving as an encyclopedia of all the world’s known living languages.
II. The Features of Langscape

LANGSCAPE’S FEATURES AND HOW TO USE THEM

The Langscape database has three main features: the Interactive Map, the Text Identification Tool, and the Language Familiarization Game. This section provides a brief overview of each feature and its functions; a more complete description of how to use these functions is available in the “Help” section of the website.

The Interactive Map

Langscape presents its language data via a sophisticated mapping interface that allows users to explore the world’s languages in an interactive and dynamic manner.

The map interface offers the capability to zoom to any spot on the globe and see what languages are spoken there. The tool has several different base maps and information layers on which this data can be displayed. Clicking on the map will display an information window showing the languages spoken in that area; selecting a language name from the window prompts information regarding that language and its speakers to appear below the map.
Not only can users explore the globe through the map’s navigation tools, but Langscape’s map is also equipped with a variety of search functions that allow users to discover languages by name, country, latitude and longitude coordinates, or phoneme inventory.

The Langscape database contains information for nearly 7,000 languages. For each language, the database provides a set of basic information such as alternate and dialect names, geographical location, speaker populations, related languages, and the language’s unique ISO code. For many languages, this basic data is supplemented with additional information, including sketches of the language’s grammar, phoneme inventories, lists of common words and phrases, audio and video files, available resources for those who want to study the language, and information about experts on the language.

The interactive language map serves as a valuable tool for the observation of language distribution, interaction, contact, and relation. The geographical data can also be connected to other kinds of human data for cross-discipline analysis and discovery.
The Text Identification Tool

Langscape's Text Identification Tool applies a mathematical algorithm to determine the language of a text sample. When a sample of text in an unknown language is input into the tool, the algorithm compares the sample to the languages available in the tool’s database and returns those that it most closely matches. These languages are ranked by plausibility and are accompanied by text samples for comparison.
Langscape’s Language Familiarization Game is designed to help users learn to recognize and aurally distinguish between different languages. Users can select languages to learn from over 3,000 choices represented in the tool’s database, with the option of selecting a predefined set or creating one’s own. The tool develops and tests the user’s ability to correctly identify the selected languages in audio recordings.
III. Educational Applications

LANGSCAPE AS AN EDUCATIONAL TOOL

One of the potential applications of the Langscape portal is as an educational resource. Langscape has several properties that make it a valuable educational tool.

- Langscape connects users to various types of data and resources without requiring any particular background knowledge or pre-specified search interest on the part of the user. The portal can therefore be navigated by users from any walk of life at any point of their academic careers, facilitating use by both educators and students alike.

- We are working hard with the Langscape web developer to make the online interface as intuitive and easy-to-use as possible so that the database is accessible to a wide range of user types.

- The interactive component of Langscape’s interface allows students to learn and interact with information in a dynamic manner, engaging them in the subject material and teaching them valuable researching techniques.

- The Langscape portal provides exposure to the various types of data that students will come across during their academic and professional careers, combining visual, auditory, quantitative, and textual resources. This exposure will help students develop the capability to call upon and interpret a wide range of information sources to answer questions and solve problems.

- Langscape is an online resource that gets students comfortable with using technological tools and teaches them how to search and gather information in an Internet database, skills which have become invaluable in our modern world.

- Especially when combined with other data, the information presented through Langscape encourages cross-disciplinary thinking, analysis, and discovery. This cross-disciplinary focus supports the development of problem solvers who can think critically, concentrate on “big ideas”, and draw connections between different fields.

- The integration of Langscape into the classroom can help meet national and international education standards including the Common Core State Standards.

- The Langscape portal contains an extensive and varied set of resources that have the capability and potential to inspire further exploration beyond classroom use. Such exploration motivates in students a desire to learn, interest in the language sciences, and curiosity about global themes.

- Exposure to the global themes and concepts at the heart of the Langscape project can inspire a generation of globally, culturally, and linguistically-aware citizens who interact with the world with an international mindset.
More than a Linguistics Resource

Although Langscape was originally developed as a linguistics resource, we understand that linguistics is not a typical component of K-12 education. We would thus like to stress the fact that you do not need to be explicitly discussing language or linguistics in order to use Langscape as an effective teaching tool; Langscape’s resources can be applied to a variety of different topics, especially when used in conjunction with other data or information. Section IV provides a selection of sample activities using Langscape as a teaching resource that target areas outside of the realm of linguistics, including global studies, geography, social studies, world history, U.S. history, and the study of foreign language.

Fulfilling National and International Education Standards

The incorporation of Langscape’s tools and materials into classroom activity can help target several national and international education standards, learning goals, and identified key concepts. A few such concepts, goals, and standards are listed below.

NCGE National Geography Standards

Available online at:

- **Standard 1**: How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information.
- **Standard 3**: How to analyze the spatial organization of people, places, and environments on Earth’s surface.
- **Standard 4**: The physical and human characteristics of places.
- **Standard 10**: The characteristics, distributions, and complexity of Earth’s cultural mosaics.
U.S. Common Core State Standards

Available online at: http://www.corestandards.org/read-the-standards/

- **Anchor Standard 7**: Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
  - **RI.4.7**: Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
  - **RI.5.7**: Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
  - **RI.6.7**: Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.
  - **RH.6-8.7**: Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
  - **RH.9-10.6**: Integrate quantitative or technical analysis (e.g., charts, research data) with qualitative analysis in print or digital text.
  - **RI/RH.11-12.7**: Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or a problem.

International Society for Technology in Education (ISTE) Student Standards

Available online at: http://www.iste.org/standards/standards-for-students

- **Standard 3, Research and Information Fluency**: Students apply digital tools to gather, evaluate, and use information.
- **Standard 6, Technology Operations and Concepts**: Students demonstrate sound understanding of technology concepts, systems, and operations.
NBEA National Standards for Business Education

Available online at: https://www.nbea.org/newsite/curriculum/standards/info_technology.html

- Achievement Standard VIII, Information Retrieval and Synthesis: Gather, evaluate, use, cite, and disseminate information from technology sources.

Partnership for 21st Century Skills


- Themes: Global Awareness, Geography, World Languages
- Information, Media, and Technology Skills

NCTE Conference on English Education, Supporting Linguistically and Culturally Diverse Learners in English Education

Available online at: http://www.ncte.org/cee/positions/diverselearnersinee

- Belief 4, Variety of Educational Experience
  Students have a right to a wide variety and range of high quality critical educational experiences that help them make informed decisions about their role and participation in language, literacy, and life.
  - “…these experiences should lead students to build a deep awareness and understanding for the various forms of language, literacies and varying lifestyles that exist in their communities and in the world.”
IV. Sample Activities

LANGSCAPE IN THE CLASSROOM

The following pages provide a variety of sample classroom activities that use Langscape as a learning tool. Each activity description is accompanied by an explanation of the activity’s goal, relevant subject areas, appropriate grade levels, an outline of the activity’s methodology, potential questions for students to consider or for educators to answer, and learning skills that the activity involves or develops. The activities are roughly arranged according to relevant subject area, though the activities often may apply to more than one area of study.

The sample activities make use of a wide variety of the different features and data that Langscape currently contains as well as potential future features. The activities in this manual are meant to serve as guidelines for educators and thus may be altered, expanded, or combined with additional tasks and lessons in order to best fit the school curriculum. The suggestions are further intended to serve as a springboard to inspire new applications of Langscape in the K-12 classroom setting.

To see how the individual activities connect to state curriculum standards and goals as well as to Common Core, ISTE, and National Geography standards not previously mentioned, please refer to the section ‘Connection to State Curriculum Standards’ beginning on page 24.
**Global Studies**

**Language Scavenger Hunt**

*Goal:* To expose students to the idea and extent of the world’s language and cultural diversity; to increase student comfort with using online resources and interpreting geographically-displayed information.

*Subject Area:* Global Studies, Geography, Social Studies

*Grade Level:* 3-8

*Activity:* Have students guess how many different languages are spoken in the world. Provide students with a list of language names, characteristics, coordinates, or other information to find through Langscape’s Interactive Map; for example, “How many speakers does French have worldwide?”, “Where is Kituba spoken?”, “Find a language spoken in South America whose name begins with an X”, “How do you say ‘Hello’ in Vietnamese?”, “What language is spoken at (6.28, -1.25)?”, etc.

*Potential Questions:* Were you surprised by the number of different languages that are spoken in the world? What did you learn about language that you did not know before?

*Skills:* gathering and organizing geographical information, navigating online resources
Country Report

Goal: To introduce students to foreign cultures and get them thinking about the world in an international sense.

Subject Area: Global Studies, Social Studies, Geography

Grade Level: 4-8

Activity: Assign each student a foreign country to research and have them write and present a report about their country. Suggest Langscape as a tool to look up the country’s linguistic profile.

Potential Questions: How many languages are spoken in the country? If multiple languages are spoken, how did they get there? Who speaks them? What impact has having more than one language had on the country’s culture? How do you say “Hello” and “Goodbye” in the country’s language(s)?

Skills: research, writing
Language Bingo

*Goal:* To expose students to the concept of foreign languages and language diversity; to increase student comfort with navigating online resources.

*Subject Area:* Global Studies, Social Studies

*Grade Level:* 3-8

*Activity:* Provide students with a 4 x 4 bingo board. In each square, write a description of a different piece of information that can be found using Langscape resources; for instance, “The word for ‘goodbye’ in Afrikaans” (‘totsiens’), “The most commonly spoken language in Iran” (Western Farsi), or “The number of languages spoken in Romania” (five). Give students time to search Langscape for the items described, then play bingo by reading out the answers and having students mark the corresponding space.

*Potential Questions:* What did you learn about the world’s languages?

*Skills:* research, navigating online resources

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Foreign Language

Language Investigation

*Goal:* To introduce students to the foreign language that they will be learning in class.

*Subject Area:* Foreign Language

*Grade Level:* 6-12

*Activity:* Have students look up the target language in the Langscape database to get an idea of where it is spoken, how many speakers it has, what it sounds like, how many different dialects there are, etc.

*Potential Questions:* Where is the language spoken? Where did it originate? How many people speak the language? How many different dialects does the language have? How do these dialects differ? Does the language sound similar to or different from English? What sounds does the language have that English does not? Was there anything that you learned that you found surprising?

*Skills:* research, understanding
Francophone Countries

Goal: To give students a better idea of the multiple applications of learning a foreign language (i.e. that it can be useful when discussing more than one culture) and the status of French across the globe.

Subject Area: Foreign Language (although French is used for this example, the activity can also be applied to the study of other languages such as Spanish or German)

Grade Level: 4-12

Activity: Have the students look up and complete a research project about a country other than France where French is spoken, using the Langscape map to explore the different parts of the world where the language is used. This activity could also be combined with an explanation of creole languages.

Potential Questions: What are the primary languages of the chosen country? What communities speak them? How do you say “Bonjour” in each of those languages? What percentage of the population speaks French? Listening to the language samples, how does that variety of French sound compared to that spoken in France? How do you think that French was brought to that country?

Skills: research, writing
Geography

Geographic Information Systems

Goal: To introduce students to Graphic Information Systems (GIS), how they work, and their potential applications in the real world.

Subject Area: Geography, Earth Science, Global Studies

Grade Level: 4-12

Activity: Discuss the concept of GIS using Langscape as an example of the mapping of data by geographical information.

Potential Questions: What is the difference between a GPS (a tool providing geographic information) and a GIS (a tool for the analysis and display of geographic data)? How are GIS systems used in the real world? What are examples of apps or programs that use GIS systems? How do they work?

Skills: understanding, analysis

Latitude and Longitude Practice

Goal: To introduce students to the latitude and longitude coordinate system while simultaneously exposing them to the concept of language diversity; to increase student comfort with using online resources and technology as well as interpreting information in a geographically-displayed format.

Subject Area: Geography, Global Studies

Grade Level: 2-8

Activity: Have students write down how many languages they think are spoken in the world. Next, provide the students with a language scavenger hunt asking them to find information about specific languages based on their latitude and longitude coordinates; for example, “What language is spoken at (6.5, -1.0)?”, “How many speakers does it have?”, “Where is Bengali spoken?”, etc.

Potential Questions: What is the value of this kind of coordinate system? Were you surprised by the number of different languages that are spoken in the world? What did you learn about language that you did not know before?

Skills: understanding, applying, gathering and organizing geographical information
**Continent Discovery**

*Goal:* To introduce students to the idea of different continents and cultures.

*Subject Area:* Geography, Global Studies

*Grade Level:* 1-3

*Activity:* Use the Langscape Interactive Map to explore the world’s seven continents, their locations, what countries they contain, and how many languages are spoken there; then compare these facts to the students’ home continent and country.

*Potential Questions:* Which continent is the biggest? Which continent has the most linguistic diversity? What do you think it would be like to live in another country or continent?

*Skills:* understanding geographical information, analysis

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**European Languages**

*Goal:* To introduce students to the European continent through its languages.

*Subject Area:* Geography, Global Studies

*Grade Level:* 3-6

*Activity:* Provide students with a list of different countries in the European continent and ask them to find the main language for each country. This list can be supplemented by a selection of lesser-known European languages (ex. Basque, Romani) for which the students must find the country of origin. This activity can be combined with an introduction to the concept of language families or endangered languages as well as a discussion of European culture.
European Languages (continued)

*Potential Questions:* How many different languages do you think are spoken in Europe? Do any countries have populations that speak multiple languages? How do you think cultures are affected by the languages they speak?

*Skills:* research, navigating online resources

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**Geography Challenge**

**Goal:** To introduce different geographical features and their effect on human settlement.

*Subject Area:* Geography, Earth Science, Social Studies, Global Studies

*Grade Level:* 2-5

*Activity:* Use the Langscape map to explore where languages are spoken, especially with respect to geographical features such as deserts or tall mountains; discuss why the students think more or fewer languages are spoken in such areas.

*Potential Questions:* Can you find any areas where there are no languages spoken? What characteristics do these areas have that might discourage human settlement? How have human civilizations overcome these types of challenges? Why do you think more languages are spoken in some areas than others? Can you think of any geographical features that would encourage settlement and linguistic diversity?

*Skills:* gathering and understanding geographical information, critical thinking, analysis
History & Social Studies

Navajo Code Talkers

Goal: To learn about codes and ciphers— in particular the World War II Navajo code— and to discuss the contributions of the Navajo code talkers during WWII.

Subject Area: U.S. History, World History, Social Studies

Grade Level: 5-12

Activity: Introduce students to codes and ciphers and their various uses. Discuss the Navajo code talkers and explain how the Navajo code worked; listen to Langscape media files to hear what Navajo sounds like. Have students develop their own codes based on an uncommon language using the wordlists and information found in the Langscape database.

Potential Questions: What is the difference between a code (meaning-level transformation) and a cipher (letter-by-letter transformation)? Can you name any well-known codes or ciphers (ex. Morse code, computer codes, etc.)? In what kinds of situations would codes or ciphers be useful? How are codes “broken”? Why did the Marine Corps decide to use Navajo for their code? Why was the Navajo code so effective? How did the Navajo code talkers contribute to the U.S. war effort and the ultimate victory of the Allied forces?

Skills: understanding, applying, creative thinking, analysis
U.S. Language Diversity

**Goal:** To introduce students to the linguistic diversity and cultural profile of their home country, state, and town.

**Subject Area:** U.S. History, Social Studies

**Grade Level:** 2-8

**Activity:** Use Langscape’s map to zoom in on the United States and the students’ home state; identify how many and what languages are spoken there.

**Potential Questions:** How did there come to be so many languages used in the United States? Who speaks them? Are there particular locations within the U.S. where more languages are spoken than in others? Why do you think that is the case? Can you think of any English words or place names that come from other languages? Do you speak a language besides English or know anyone that does? How did you/they learn that language? Do you think most Americans speak one or more languages? How does the United States’ linguistic and cultural diversity make it unique?

**Skills:** critical thinking, analysis, understanding geographical information
U.S. Colonization

Goal: To identify the major languages spoken in the U.S. and relate them back to the country’s colonial history.

Subject Area: U.S. History

Grade Level: 3-8

Activity: Zoom in on the United States in Langscape’s Interactive Map; identify and locate the major languages spoken in the United States and use this information to try to determine which colonial powers established settlements in the U.S.

Potential Questions: How can you tell that the U.S. was influenced by more than one colonial power? Who were these powers? What is the connection between language distribution and colonial history? Can you think of any English words or place names that come from other languages? What are other potential influences of colonialism and can we see any evidence of them today?

Skills: critical thinking, analysis, understanding geographical information

U.S. History: Native Americans

Goal: To explore the impact of settlement and expansion on the native populations of North America.

Subject Area: U.S. History

Grade Level: 3-12

Activity: Students compare where Native Americans once were to where they are now (as plotted by their linguistic distribution); look for evidence of tribe migration and reduction in population size.

Potential Questions: What effects did the arrival of European settlers in the New World have on the indigenous populations? What effects did the westward expansion have on Native American populations? What have Native Americans contributed to our culture and language?

Skills: critical thinking, analysis, understanding geographical information
Colonization Investigation - A

Goal: To introduce students to the concept of colonization and its lasting effects.

Subject Area: World History, Global Studies

Grade Level: 5-12

Activity: Given the names of the major colonial powers, try to determine where each of them went judging from where their languages are spoken on the map. This exploration may be restricted to a specific region in which students need to identify who colonized what.

Potential Questions: What were the motivations of the colonial powers? What impact did colonialism have on the native populations? What lasting evidence of colonialism can we see today?

Skills: critical thinking, analysis, problem-solving, understanding geographical information
Colonization Investigation - B

Goal: To introduce students to the concept of colonization and its lasting effects.

Subject Area: World History, Global Studies

Grade Level: 5-12

Activity: Trace colonization routes on the Langscape map and look for lasting linguistic evidence of colonialism.

Potential Questions: What were the motivations of the colonial powers? What impact did colonialism have on the native populations? Is there lasting linguistic evidence of colonialism? Why or why not? Apart from linguistic influence, what other evidence of colonialism can we still see today?

Skills: critical thinking, analysis, problem-solving, understanding geographical information
Trade Routes Survey

Goal: To familiarize students with trade routes (either historical or contemporary); to investigate the linguistic, social, and cultural impacts of trade; to introduce the concept of a creole language.

Subject Area: Social Studies, Global Studies, World History, U.S. History, Geography

Grade Level: 5-12

Activity: Tracing historical or contemporary trade routes on the Langscape map, have students identify the linguistic effects of trade by searching for creole languages or languages brought to areas of trade by other countries.

Potential Questions: How does the interaction between different cultures or countries affect the language(s) spoken in areas along trade routes? What influence does trade have on societies and their cultures? What features make an area ideal for trade? What kinds of resources were being traded in this instance?

Skills: critical thinking, analysis, understanding geographical information
Migration Exploration

Goal: To familiarize students with migration routes (either historical or contemporary) and to investigate the linguistic, social, and cultural impacts of migration.

Subject Area: Social Studies, Global Studies, World History, U.S. History

Grade Level: 5-12

Activity: Trace migration routes on the Langscape map and look for linguistic effects caused by the arrival of new speakers to a community.

Potential Questions: What motivations might people have for migrate? Are all migrations voluntary? What effect does migration have on the local cultures?

Skills: critical thinking, analysis, understanding geographical information

CONNECTION TO STATE CURRICULUM STANDARDS

This section ties the suggested sample activities to DC Educational Standards (published by the Office of the State Superintendent of Education) as well as Common Core, ISTE, and National Geography standards not previously mentioned. The DC Educational Standards are available at: http://osse.dc.gov/service/dc-educational-standards

The connections drawn in this section are intended to serve as examples of how the Langscape activities may be integrated into the K-12 curriculum. The activities are also linked to concepts and themes studied in the K-12 educational program. Please note that the connections proposed do not necessarily reflect the only or best way to incorporate the activities into a school’s specific curriculum.
LANGUAGE SCAVENGER HUNT

DC Learning Standards: Social Studies
Historical and Social Sciences Analysis Skills
Grades 3-5, Geographic Skills
• Skill 1, Students use map and globe skills to determine the absolute locations (latitude and longitude) of places, and they interpret information available through a map or globe’s legend, scale, and symbolic representations.

Learning Standards
• 6.1: Students use maps, globes, atlases, and other technologies to acquire and process information about people, places, and environments.

COUNTRY REPORT

Common Core Standards
• CCRA.W.2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
• CCRA.W.7: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
• CCRA.W.8: Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

DC Learning Standards: Social Studies
Historical and Social Sciences Analysis Skills
Grades 3-5, Historical Research, Evidence, and Point of View
• Skill 1, Students analyze societies in terms of the following themes: military, political, economic, social, religious, and intellectual.
• Skill 4, Students use non-text primary and secondary sources, such as maps, charts, graphs, photographs, works of art, and technical charts.

Grades 6-8, Geographic Skills:
• Skill 2, Students use a variety of maps and documents to identify physical and cultural features of neighborhoods, cities, states, and countries.

Learning Standards
• 6.1: Students use maps, globes, atlases, and other technologies to acquire and process information about people, places, and environments.

DC Learning Standards: Embedded Technology Standards
• 5/6.R.1 Research: Apply steps for obtaining and organizing information from a variety of sources, documenting, and presenting research in individual and group projects.
**LANGUAGE BINGO**

DC Learning Standards: Social Studies  
**Historical and Social Sciences Analysis Skills**  
*Grades 3-5, Geographic Skills*  
- Skill 1, Students use map and globe skills to determine the absolute locations (latitude and longitude) of places, and they interpret information available through a map or globe’s legend, scale, and symbolic representations.

**Learning Standards**  
- 6.1: Students use maps, globes, atlases, and other technologies to acquire and process information about people, places, and environments.

**LANGUAGE INVESTIGATION**

Common Core Standards  
- WHST.6-8.7: Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

DC Learning Standards: Social Studies  
**Learning Standards**  
- 6.1: Students use maps, globes, atlases, and other technologies to acquire and process information about people, places, and environments.

DC Learning Standards: Embedded Technology Standards  
- I.2.3 Modern Languages: Demonstrate understanding of spoken and written language based on new topics that are presented through a variety of media.

**FRANCOPHONE COUNTRIES**

Common Core Standards  
- CCRA.W.2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
- CCRA.W.7: Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
- CCRA.W.8: Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
FRANCOPHONE COUNTRIES (Continued)

DC Learning Standards: Social Studies

Historical and Social Sciences Analysis Skills
Grades 3-5, Historical Research, Evidence, and Point of View
• Skill 1, Students analyze societies in terms of the following themes: military, political, economic, social, religious, and intellectual.
• Skill 4, Students use non-text primary and secondary sources, such as maps, charts, graphs, photographs, works of art, and technical charts.

Grades 3-5, Geographic Skills
• Skill 5, Students explain the distributions of cultures in places they study and how they create a cultural landscape.

Grades 6-8, Geographic Skills:
• Skill 2, Students use a variety of maps and documents to identify physical and cultural features of neighborhoods, cities, states, and countries.

Learning Standards
• 6.1: Students use maps, globes, atlases, and other technologies to acquire and process information about people, places, and environments.

DC Learning Standards: Embedded Technology Standards
• 5/6.R.1 Research: Apply steps for obtaining and organizing information from a variety of sources, documenting, and presenting research in individual and group projects.

DC Learning Standards: World Languages
• 2.3.3: Compare and contrast products, artifacts, dwellings and symbols, and their perspectives among same-language cultures.
• 3.2.2: Present cultural geographic data.
• 4.5.4: Evaluate contribution of the culture(s) studied to other world cultures and vice versa.
• 5.4.3: Use a variety of world language sources in and outside the community to research diverse topics related to the target language and/or culture(s) study.

GEOGRAPHIC INFORMATION SYSTEMS

DC Learning Standards: Embedded Technology Standards
• 2.2.1 Science and Technology: Give examples of how our lives would be different without such technologies as automobiles, computers, and electric motors.
• 3.2.1 Science and Technology: Define technology as the application of human ingenuity and skill to the solution of practical problems (e.g., typewriter, computer).
• 4.2.2 Science and Technology: Discuss and give examples how technologies, such as computers and medical X-rays, have improved the lives of people.
6.2.1 Science and Technology: Explain that computers have become valuable in science because they speed up and extend people’s ability to collect, store, compile, and analyze data; prepare research reports; and share data and ideas with investigators all over the world.

6.2.2 Science and Technology: Explain that technology is essential to science for such purposes as measurement, data collection, graphing and storage, computation, communication and assessment of information, and access to outer space and other remote locations.

LATITUDE AND LONGITUDE PRACTICE

DC Learning Standards: Social Studies

Historical and Social Sciences Analysis Skills

Grades 3-5, Geographic Skills

- Skill 1, Students use map and globe skills to determine the absolute locations (latitude and longitude) of places, and they interpret information available through a map or globe’s legend, scale, and symbolic representations.

Grades 6-8, Geographic Skills

- Skill 1, Students explain Earth’s grid system and are able to locate places using degrees of latitude and longitude.

Learning Standards

- 2.1 Students use map and globe skills to determine the absolute locations of places and interpret information available through a map or globe’s legend, scale, and symbolic representations.

CONTINENT DISCOVERY

DC Learning Standards: Social Studies

Historical and Social Sciences Analysis Skills

Grades K-2, Geographic Skills

- Skill 2, Students identify the human and physical characteristics of the places they are studying.

Grades 3-5, Geographic Skills

- Skill 5, Students explain the distributions of cultures in places they study and how they create a cultural landscape.

Learning Standards

- 6.1 Students use maps, globes, atlases, and other technologies to acquire and process information about people, places, and environments.
CONTINENT DISCOVERY (Continued)

NCGE National Geography Standards
• Standard 5: That people create regions to interpret Earth’s complexity.

EUROPEAN LANGUAGES

DC Learning Standards: Social Studies
Historical and Social Sciences Analysis Skills
Grades K-2, Geographic Skills
• Skill 2, Students identify the human and physical characteristics of the places they are studying.

Grades 3-5, Geographic Skills
• Skill 5, Students explain the distributions of cultures in places they study and how they create a cultural landscape.

Grades 6-8, Geographic Skills
• Skill 2, Students use a variety of maps and documents to identify physical and cultural features of neighborhoods, cities, states, and countries.

Learning Standards
• 6.1 Students use maps, globes, atlases, and other technologies to acquire and process information about people, places, and environments.

GEOGRAPHY CHALLENGE

DC Learning Standards: Social Studies
Themes and Concepts
• 7, The effects of geography on the history of civilizations and nations.

Historical and Social Sciences Analysis Skills
Grades K-12, Geographic Skills
• Skill 2, Students identify the human and physical characteristics of the places they are studying.

Grades 3-5, Geographic Skills
• Skill 3, Students judge the significance of the relative location of a place (e.g., proximity to a harbor, on trade routes), and they analyze how relative advantages or disadvantages can change over time.
• Skill 4, Students identify the human and physical characteristics of the places they are studying, and they explain how those features form the unique character of those places.
GEOGRAPHY CHALLENGE (Continued)

Grades 6-8, Geographic Skills
• Skill 9, Students explain the effects of interactions between humans and natural systems, including how we depend on natural resources and adapt to and affect the natural environment.

Learning Standards
• 6.1: Students use maps, globes, atlases, and other technologies to acquire and process information about people, places, and environments.

DC Learning Standards: World Languages
• 2.2.1: Recognize and identify geographical features and analyze how geography shapes culture, perspective, and language.

ISTE Student Standards
• Standard 4: Critical Thinking, Problem Solving, and Decision Making

NAVAJO CODE TALKERS

DC Learning Standards: Social Studies
Learning Standards
• 5.11: Students describe the main events of World War II and how the Allies prevailed.
• 10.8: Students analyze the causes and course of World War II.
• 11.8: Students analyze America’s participation in World War II.
  • 11.8.7: Identify the roles and sacrifices of individual American soldiers (more than 300,000 American soldiers died), as well as the unique contributions of the special fighting forces (e.g., the Tuskegee Airmen, the 442nd Regimental Combat team, and the Navajo Code Talkers).

ISTE Student Standards
• Standard 1: Creativity and Innovation

U.S. LANGUAGE DIVERSITY

DC Learning Standards: Social Studies
Themes and Concepts
• 5, The influence of economic, political, religious, and cultural ideas as human societies move beyond regional, national, or geographic boundaries.

Historical and Social Sciences Analysis Skills
Grades K-2, Geographic Skills
• Skill 2, Students identify the human and physical characteristics of the places they are studying.
U.S. LANGUAGE DIVERSITY (Continued)

Grades 3-5, Geographic Skills
• Skill 5, Students explain the distributions of cultures in places that they study and how they create a cultural landscape.
• Skill 4, Students identify the human and physical characteristics of the places they are studying, and they explain how those features form the unique character of those places.

Grades 6-8, Geographic Skills
• Skill 2, Students use a variety of maps and documents to identify physical and cultural features of neighborhoods, cities, states, and countries.

Grades 3-5 Historical Research, Evidence, and Point of View
• Skill 4, Students use non-text primary and secondary sources, such as maps, charts, graphs, photographs, works of art, and technical charts.

Learning Standards
• 2.5: Students describe the human characteristics of familiar places and varied backgrounds of U.S. citizens and residents in those places.
• 4.2: Students describe the legacy and cultures of major indigenous settlements, including the cliff dwellers and pueblo people of the desert Southwest, the triple alliance empire of the Yucatan Peninsula, the nomadic nations of the Great Plains, and the woodland peoples east of the Mississippi.
• 5.1: Students trace the colonization, immigration, and settlement patterns of the American people from 1789 to the mid-1800s.
• 5.12: Use geographical tools to locate and analyze information about people, places, and environments in the United States.
• 5.16: Students identify major waves of immigration and demographic changes in U.S. history and describe the diverse nature of American people and their contributions to American culture.
• 6.1: Students use maps, globes, atlases, and other technologies to acquire and process information about people, places, and environments.

U.S. COLONIZATION

DC Learning Standards: Social Studies
Themes and Concepts
• 4, The birth, growth, and decline of civilizations.
• 5, The influence of economic, political, religious, and cultural ideas as human societies move beyond regional, national, or geographic boundaries.
• 6, The historical patterns and relationships within and among world nations, continents, and regions.
U.S. COLONIZATION (Continued)

Historical and Social Sciences Analysis Skills

Grades 3-5, Chronology and Cause and Effect
• Skill 3, Students explain how the present is connected to the past, identifying both similarities and differences between the two, and how some things change over time and some things stay the same.

Grades 3-5, Geographic Skills
• Skill 8, Students explain the causes and effects of settlement patterns, including the effect of rural-to-urban migrations.

Grades 6-8, Geographic Skills
• Skill 5, Students explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems.

Learning Standards
• 4.3: Students trace the routes of early explorers and describe early explorations of the Americas.
• 4.4: Students identify the six different countries (France, Spain, Portugal, England, Russia, and the Netherlands) that influenced different regions of the present United States at the time the New World was being explored, and describe how their influence can be traced to place names, architectural features, and language.
• 5.1: Students trace the colonization, immigration, and settlement patterns of the American people from 1789 to the mid-1800s.
• 5.16: Students identify major waves of immigration and demographic changes in U.S. history and describe the diverse nature of American people and their contributions to American culture.
• 8.1: Students explain the religious, political, and economic reasons for movement of people from Europe to the Americas, and they describe the impact of exploration and settlement by Europeans on Native Americans.

ISTE Student Standards
• Standard 4: Critical Thinking, Problem Solving, and Decision Making

NCGE National Geography Standards
• Standard 9: The characteristics, distribution, and migration of human populations on Earth’s surface.
• Standard 12: The processes, patterns, and functions of human settlement.
• Standard 17: How to apply geography to interpret the past.
DC Learning Standards: Social Studies

Themes and Concepts

• 4, The birth, growth, and decline of civilizations.

Historical and Social Sciences Analysis Skills

Grades 9-12, Historical Chronology and Interpretation

• Skill 1, Students compare the present with the past, evaluating the consequences of past events and decisions and determining the lessons that were learned.

Grades 3-5, Chronology and Cause and Effect

• Skill 3, Students explain how the present is connected to the past, identifying both similarities and differences between the two, and how some things change over time and some things stay the same.

Grades 3-5, Geographic Skills

• Skill 8, Students explain the causes and effects of settlement patterns, including the effect of rural-to-urban migrations.

Grades 6-8, Geographic Skills

• Skill 5, Students explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems.
• Skill 11, Students use geographic knowledge and skills to analyze historical and contemporary issues.

Grades 9-12, Geographic Skills

• Skill 1, Students use a variety of maps and documents to interpret human movement, including major patterns of domestic and international migration, changing environmental preferences and settlement patterns, the frictions that develop between population groups, and the diffusion of ideas, technological innovations, and goods.

Learning Standards

• 4.2: Students describe the legacy and cultures of major indigenous settlements, including the cliff dwellers and pueblo people of the desert Southwest, the triple alliance empire of the Yucatan Peninsula, the nomadic nations of the Great Plains, and the woodland peoples east of the Mississippi.
• 4.3: Students trace the routes of early explorers and describe early explorations of the Americas.
• 4.6: Students describe the cooperation and conflict that existed among the Native Americans and between Indian nations and the new settlers.
• 5.12: Use geographical tools to locate and analyze information about people, places, and environments in the United States.
• 5.16: Students identify major waves of immigration and demographic changes in U.S. history and describe the diverse nature of American people and their contributions to American culture.
U.S. HISTORY: NATIVE AMERICANS (Continued)

- 8.1: Students explain the religious, political, and economic reasons for movement of people from Europe to the Americas, and they describe the impact of exploration and settlement by Europeans on Native Americans.
- 12.DC.2: Students describe the early Native American and English settlements that were established during the 17th and 18th centuries.

ISTE Student Standards
- Standard 4: Critical Thinking, Problem Solving, and Decision Making

NCGE National Geography Standards
- Standard 9: The characteristics, distribution, and migration of human populations on Earth’s surface.

COLONIZATION INVESTIGATION - A & B

DC Learning Standards: Social Studies

Themes and Concepts
- 5, The influence of economic, political, religious, and cultural ideas as human societies move beyond regional, national, or geographic boundaries.
- 6, The historical patterns and relationships within and among world nations, continents, and regions.

Historical and Social Sciences Analysis Skills

Grades 3-5, Geographic Skills
- Skill 8, Students explain the causes and effects of settlement patterns, including the effect of rural-to-urban migrations.

Grades 6-8, Geographic Skills
- Skill 5, Students explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems.

Grades 9-12, Geographic Skills
- Skill 1, Students use a variety of maps and documents to interpret human movement, including major patterns of domestic and international migration, changing environmental preferences and settlement patterns, the frictions that develop between population groups, and the diffusion of ideas, technological innovations, and goods. Identify major patterns of human migration, both in the past and present.
- Skill 5, Students hypothesize about the impact of push-pull factors on human migration in selected regions and about changes in these factors over time. Students develop maps of human migration and settlement patterns at different times in history and compare them to the present.
Grades 3-5 Historical Research, Evidence, and Point of View

• Skill 4, Students use non-text primary and secondary sources, such as maps, charts, graphs, photographs, works of art, and technical charts.

Learning Standards

• 4.1: Students describe the different peoples, with different languages and ways of life, that eventually spread out over the North and South American continents and the Caribbean Basin, from Asia to North America.
• 4.3: Students trace the routes of early explorers and describe early explorations of the Americas.
• 8.1: Students explain the religious, political, and economic reasons for movement of people from Europe to the Americas, and they describe the impact of exploration and settlement by Europeans on Native Americans.
• 9.10: Students describe the rise of English Colonial Empires.
• 10.2: Students analyze patterns of global change in the era of 19th-century European imperialism.
• 10.3: Students describe the independence struggles of colonized regions of the world some though constitutional devolution of power and others as a result of armed revolution and the culture of classes because of different worldviews.

ISTE Student Standards

• Standard 4: Critical Thinking, Problem Solving, and Decision Making

NCGE National Geography Standards

• Standard 9: The characteristics, distribution, and migration of human populations on Earth’s surface.
• Standard 12: The processes, patterns, and functions of human settlement.

TRADE ROUTES SURVEY

DC Learning Standards: Social Studies

Historical and Social Sciences Analysis Skills

Grades 3-5, Geographic Skills

• Skill 8, Students explain the causes and effects of settlement patterns, including the effect of rural-to-urban migrations.

Grades 6-8, Geographic Skills

• Skill 5, Students explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems.
• Skill 11, Students use geographic knowledge and skills to analyze historical and contemporary issues.
TRADE ROUTES SURVEY (Continued)

Grades 9-12, Geographic Skills
- Skill 41, Students use a variety of maps and documents to interpret human movement, including major patterns of domestic and international migration, changing environmental preferences and settlement patterns, the frictions that develop between population groups, and the diffusion of ideas, technological innovations, and goods.

Grades 3-5 Historical Research, Evidence, and Point of View
- Skill 4, Students use non-text primary and secondary sources, such as maps, charts, graphs, photographs, works of art, and technical charts.

Learning Standards
- 9.16: Students describe patterns of change in Africa during trade in slaves between Africa, Europe, and the Americas from the 17th through 18th centuries.
- 10.2: Students analyze patterns of global change in the era of 19th-century European imperialism.
- E.5: Students analyze issues of international trade and explain how the U.S. economy affects, and is affected by, economic forces beyond U.S. borders.

ISTE Student Standards
- Standard 4: Critical Thinking, Problem Solving, and Decision Making

MIGRATION EXPLORATION

DC Learning Standards: Social Studies
Themes and Concepts
- 5, The influence of economic, political, religious, and cultural ideas as human societies move beyond regional, national, or geographic boundaries.
- 6, The historical patterns and relationships within and among world nations, continents, and regions.

Historical and Social Sciences Analysis Skills
Grades 3-5, Geographic Skills
- Skill 8, Students explain the causes and effects of settlement patterns, including the effect of rural-to-urban migrations.

Grades 6-8, Geographic Skills
- Skill 5, Students explain the historical migration of people, expansion and disintegration of empires, and the growth of economic systems.
- Skill 11, Students use geographic knowledge and skills to analyze historical and contemporary issues.
Grades 9-12, Geographic Skills

- Skill 1: Students use a variety of maps and documents to interpret human movement, including major patterns of domestic and international migration, changing environmental preferences and settlement patterns, the frictions that develop between population groups, and the diffusion of ideas, technological innovations, and goods. Identify major patterns of human migration, both in the past and present.

- Skill 5: Students hypothesize about the impact of push-pull factors on human migration in selected regions and about changes in these factors over time. Students develop maps of human migration and settlement patterns at different times in history and compare them to the present.

Learning Standards

- 4.1: Students describe the different peoples, with different languages and ways of life, that eventually spread out over the North and South American continents and the Caribbean Basin, from Asia to North America.

- 6.3: Students identify and analyze the human activities that shape Earth’s surface, including population numbers, distribution and growth rates, and cultural factors.

DC Learning Standards: Embedded Technology Standards

- 6.4.2 World Geography and Cultures, Understand the relationships between changing transportation technologies and increasing urbanization.

ISTE Student Standards

- Standard 4: Critical Thinking, Problem Solving, and Decision Making

NCGE National Geography Standards

- Standard 9: The characteristics, distribution, and migration of human populations on Earth’s surface.
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