

Introduction to Geography

Lesson Synopsis:

The purpose of this lesson is to introduce students to geography and geography terminology, to teach students about the maps and tools geographers use, and to have students practice using a grid system for location.

TEKS:

9 Geography. *The student understands the concept of region as an area of Earth's surface with unifying geographic characteristics. The student is expected to:*

9B Identify the differences among formal, functional and perceptual regions.

Process TEKS:

22 Social studies skills. *The student communicates in written, oral, and visual forms. The student is expected to:*

22A Design and draw ~~appropriate maps and other~~ graphics such as ~~sketch maps, diagrams, tables, and graphs~~ to present geographic information including, geographic features, geographic distributions, and geographic relationships;

22B Apply appropriate vocabulary, geographic models, generalizations, theories, and skills to present geographic information;

22C Use geographic terminology correctly.

GETTING READY FOR INSTRUCTION

Performance Indicator(s):

- Create a diagram about geography in order to identify what geographers study, what tools geographers use, and geography terminology. (22A, 22B, 22C) **ELPS** 1C, 5B

Key Understandings and Guiding Questions:

- Geographers use tools to study the interactions between the physical and human landscapes of earth.
 - What is the study of geography?
 - What tools do geographers use?

Vocabulary of Instruction:

- | | | |
|---------------------|------------------|----------------------------------|
| • Geography | • Equator | • Cartography |
| • Relative Location | • Prime Meridian | • Geographic Information Systems |
| • Latitude | • Grid System | • Region |
| • Absolute Location | • Hemisphere | |
| • Longitude | • Continent | |

Materials:

- | | | |
|---|---------------|---|
| • Maps and atlases | • lines | • Pictures of places and example maps to enhance activities |
| • World Outline Map with Latitude and Longitude | • Globe | |
| | • Chart paper | |

Resources:

- Handout: **Geography Diagram**
- Handout: **Geography Race**
- PowerPoint: **Lesson 1**

Advance Preparation:

1. If using the PowerPoint: **Lesson 1**, add pictures and maps to the slides to use as examples. If not using the PowerPoint, create transparencies to display the information about Geography on the overhead or on the board.
2. Make copies of “Geography” Handout, the “Geography Race” Handout, and a world outline map with latitude/longitude for students.
3. Gather atlases or globes- have enough so that there is one for every 2-3 students.

Background Information:

Geography is the study of the physical and cultural landscapes of Earth. Geography can be studied in many ways, but for this class, geography will primarily be studied through a regional lens; Students will learn about geography by studying different regions of the world. This first lesson aims to introduce students to the discipline of geography, including what tools and techniques geographers do. The lesson will also teach students about latitude and longitude. These concepts are taught at earlier grade levels, so this lesson will act as a review.

Geographers engage in numerous and diverse activities. Some geographers work as location analysts for businesses, which mean that they help a business decide on the best location based up the physical and human characteristics of a place. Other geographers work on environmental issues such as deforestation, global warming, and other natural hazards. Some geographers study cultures around the world while other work with geographic information systems (GIS) or in cartography. And finally, geographers teach, either in K-12 schools or the university.

Tools that geographers use include maps, GIS, remote sensing and other forms of spatial data and images. Maps are the most basic tool for geographers. Maps tell geographers the distribution of characteristics on the landscape. Some geographers may make maps while other geographers analyze them. Geographic Information Systems (GIS) uses computers to create “layers” of spatial data so that geographers can analyze more complex distributions and patterns. For example, GIS software can map the number and type of retail stores in relation to the socioeconomic patterns of a city. Remotely sensed images, or images that are taken by satellite, are another useful tool for geographers to use. These types of images allow geographers to study and analyze an area based on real images. There are many tools geographers use, but maps are one of the most basic and important tools. Maps are use to locate places. There are two types of location: 1) Absolute Location and 2) Relative Location. Absolute location uses a grid system of latitude and longitude lines in order to locate a point on a map. Relative location describes the location of a place in comparison to another place. For example, the absolute location of Austin, TX is approximately 30°N Latitude and 98°W Longitude. The relative location of Austin, TX can be described as west of Houston, north of San Antonio, east of El Paso, or south of Dallas-Ft. Worth. Global Positioning Systems (GPS) give absolute location, and are widely used by American consumers today. Many cars have navigational units that use GPS as well as cell phones and hand-held GPS.

GETTING READY FOR INSTRUCTION SUPPLEMENTAL PLANNING DOCUMENT

Instructors are encouraged to supplement, and substitute resources, materials, and activities to differentiate instruction to address the needs of learners. The Exemplar Lessons are one approach to teaching and reaching the Performance Indicators and Specificity in the Instructional Focus Document for this unit. A Microsoft Word template for this planning document is located at www.cscope.us/sup_plan_temp.doc. If a supplement is created electronically, users are encouraged to upload the document to their Lesson Plans as a Lesson Plan Resource in your district Curriculum Developer site for future reference.

INSTRUCTIONAL PROCEDURES

Instructional Procedures

ENGAGE

- In a journal or a piece of paper, ask students to:
 - Pick a place in the world that they have visited. This place could be local or international, based upon the students’ experiences. It can be a visit to a family member in a town close by, or on places the student

Notes for Teacher

NOTE: 1 Day = 50 minutes

Suggested time: ¼ Day

If journaling will be a part of class, this can count towards a journal grade and can be written in a journal. Otherwise have students write their descriptions on

Instructional Procedures

traveled on vacation.

- Ask the students to write about that place:
 - What did they see in that place?
 - What was the landscape like?
 - What was the weather like?
 - What were the people like?
 - What was the vegetation or animals like?
- While students write about their place, spark their creativity by giving them key words to think about (foods, languages, sounds, etc). While they write, on the board, create a table with the following column headings:
 - Physical- Landscape
 - Physical- Weather/Climate
 - Physical- Other
 - Cultural- People
 - Cultural- Places
 - Cultural- Other

Notes for Teacher

a single sheet of paper.

For students who have not been able to travel to another place, encourage them to choose a special place close to home that they can write about.

The questions can be adjusted to fit the students' experiences. The purpose of this activity is to have students describe a place they have been to and then, as a class, identify the geography in the descriptions.

EXPLORE

- Ask students to volunteer to talk about the place they wrote about. They can either read what they wrote, or just talk freely about that place. As the students describe their places, as a class, ask the students under which heading the description should be written and write down the descriptions under the headings on the board. For example, if a student talks about his trip to Mexico and says it was hot and the people spoke Spanish, put the description of Mexico as "hot" under the "Physical-Weather/Climate" heading and put the description of "Spanish" under the "Cultural-People" heading. Have all the students share their descriptions.
- When a sufficient list of descriptions has been listed on the board, ask the students to look back at their own journal writing. Now that they have heard other students' stories, allow them to add more to their description to their writing.
- In closing, pose the question: **"Based on what you have described, does anyone know what all these things that we have talked about it are called?"** (*Geography*). Now that the students have talked about the physical and cultural characteristics of places they have been, have the students create a definition for geography.
- Pair the students up and have them share and then share some of the definitions with the class. They may adjust their definitions based on their partner's definition. Tell the students to keep these definitions and they will be revisited later.

Suggested time: ¼ Day

This activity aims for students to see how a place can be described in different ways. It is suppose to heighten students' awareness to the characteristics of a place. Since the study of geography is the study of the physical and human characteristics of places and regions, this activity will introduce students to this type of thinking.

If possible, find pictures of different places and have the students describe those places as well. Ask them to point out characteristics of that place based on what is in the picture. For example, show them a picture of a caravan across the Sahara Desert. Ask the students to point out characteristics that illustrate climate, way of life, or settlement patterns.

EXPLAIN

- Now that students have an idea of what physical and human characteristics are and a definition of geography, the teacher will explain to students the study of geography using the PowerPoint: **Lesson 1** or graphic organizers that can introduce students to the study of geography, the tools geographers use, and geography terminology.
- The teacher should cover these topics:
 - The study of geography
 - Geography jobs
 - Geography terminology/vocabulary
 - Geography tools
 - Maps, the grid system, latitude/longitude
- **Now, you have learned more about the study of geography. Take out your definition of geography. You may want to add more information or delete information based on what you have learned.**

Suggested time: ½ Day

The teacher can use the introduction PowerPoint to review these topics, or create some graphic organizers on the board or overhead. If using the PowerPoint, the teacher should add pictures and example maps to enhance the slides.

PowerPoint: **Lesson 1**

The students can either take notes in a spiral notebook, or begin working on the diagram while the teacher covers the introductory geography material.

Instructional Procedures

- Have the students share their definitions with a partner and together create a new definition. Have the pairs share their definition with another pair and the four students will create a definition. Each group of four will write their definition on chart paper. Post the chart paper on the board. As a class, write a definition for geography that will stay posted in the class as a reference.
- Assign as homework, the handout: **Geography Terminology**.

ELABORATE

- **One thing that we have learned about is “longitude and latitude.”**
- **Why is longitude and latitude important?** (*Shows the absolute location of a place.*) **Why is that important?** (*Knowing the location may tell you about the climate of the place which would tell you something about the culture of the place, the economic activities, etc.*)
- **We are now going to find out the absolute and relative location of some of the major cities in the world. These are all located in places that we will be learning about this year.**
- Divide the students in to groups of two or three. Each team will compete in “The Geography Race.” They will be given a list of 15 coordinates and a blank outline map. The students will need to locate the cities at each coordinate, give a relative location description, and then locate that city on a blank world map.
- The first team to finish the “race” correctly wins.

Notes for Teacher

If time allows, the teacher may like to include information about map projections. (planar, cylindrical, and conical)

Handout: **Geography Terminology**

Suggested time: 1 Day

Handout: **Geography Race**

Students will need a blank world outline map with longitude and latitude lines on it.

NOTE: The teacher may choose to change the terminology or add words to the list (such as Equator, Prime Meridian, hemisphere, or continent).

This activity can either be done competitively or not. It is a spin off a reality TV show that has people racing around the world. In this activity, students will “race” around the world by locating cities according to their absolute location. The students can use an atlas, a globe, or even Google Earth.

NOTE

- For students that struggle with latitude and longitude, have them bring a tennis ball to class. Using a permanent marker, the students can draw lines of latitude and longitude onto the tennis ball. The lines need to be accurately drawn and labeled with degrees.
- As practice, give students coordinates and have them locate the approximate place on their tennis ball.
- As the students begin to understand latitude and longitude, have them transfer to a globe and locate coordinates on the globe. First, give them the coordinates and have them locate the place. Then give them the place, and have them find the coordinates (For example: “Find the coordinates for Paris, France”)

Instructional Procedures

EVALUATE

- In this lesson, you have learned about what geographers study, what tools geographers use, and geography terminology.”
- Create a diagram that lists keywords, types of jobs and important ideas about the following categories of Geography.
 - Physical Geography
 - Cultural Geography
 - Geography Tools

Notes for Teacher

Suggested time: Homework

A sample graphic organizer is included. Students may choose to use this organizer or create one on their own.

Handout: **Geography Diagram**

Name: _____

GEOGRAPHY RACE

INSTRUCTIONS:

Your team is being given the coordinates to 15 cities around the world. Your task is to find these cities, describe their relative location, and map them on a world map. Using the table below, fill in the name of the city and country for each absolute location. Then describe the relative location of that city. When you map the city on your world map, place a check in the last box of the table.

Absolute Location	City	Country	Relative Location	Mapped
40° 46' N 73° 33' W				
30° 03' N 31° 15' E				
33° 52' S 151° 15' E				
35° 40' N 139° 46' E				
33° 55' S 18° 27' E				
51° 30' N 0° 07' W				
34° 05' N 118° 09' W				
17° 41' S 149° 22' W				
19° 01' N 72° 50' E				
55° 45' N 37° 37' E				
23° 32' S 46° 35' W				
4° S 39° 39' E				
36° 09' N 5° 21' W				
71° 20' N 156° 51' W				
30° 16' N 97° 44' W				

Teacher Key

GEOGRAPHY RACE

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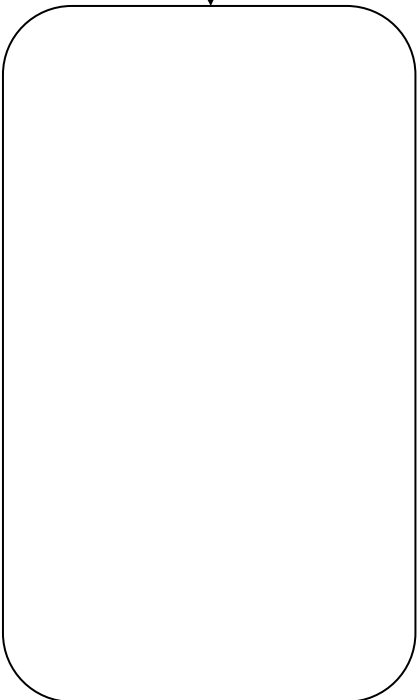
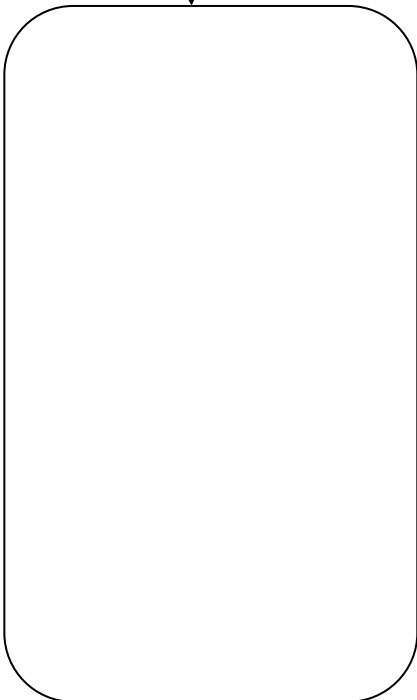
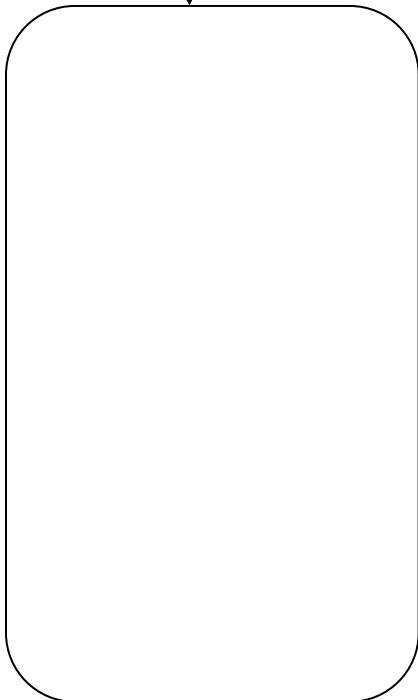
Absolute Location	City	Country	Relative Location	Mapped
40° 46' N 73° 33' W	New York, NY	USA	Descriptions Vary	Check Map
30° 03' N 31° 15' E	Cairo	Egypt		
33° 52' S 151° 15' E	Sydney	Australia		
35° 40' N 139° 46' E	Tokyo	Japan		
33° 55' S 18° 27' E	Cape Town	South Africa		
51° 30' N 0° 07' W	London	UK or England		
34° 05' N 118° 09' W	Los Angeles, CA	USA		
17° 41' S 149° 22' W	Papeete	Tahiti		
19° 01' N 72° 50' E	Mumbai (Bombay)	India		
55° 45' N 37° 37' E	Moscow	Russia		
23° 32' S 46° 35' W	Sao Paulo	Brazil		
4° S 39° 39' E	Mombasa	Kenya		
36° 09' N 5° 21' W	Gibraltar	Gibraltar		
71° 20' N 156° 51' W	Barrow, AK	USA		
30° 16' N 97° 44' W	Austin, TX	USA		

NOTE: You can change the last coordinates to your local town.

Name: _____

Instructions: In the boxes below, list keywords, types of jobs, or important ideas about each of the following categories of Geography.

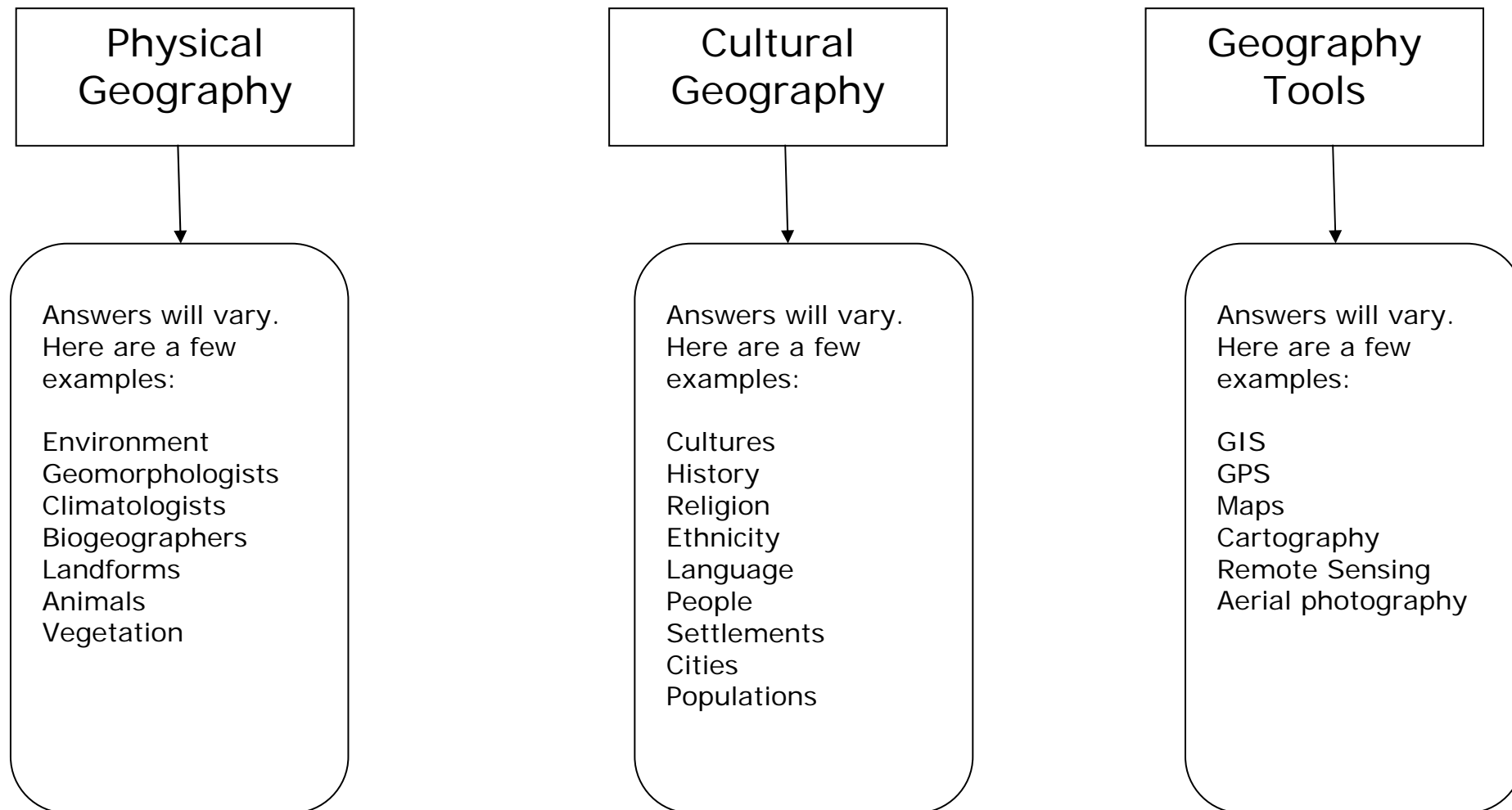
GEOGRAPHY DIAGRAM

Physical Geography	Cultural Geography	Geography Tools
		

TEACHER KEY

Instructions: In the boxes below, list keywords, types of jobs, or important ideas about each of the following categories of Geography.

GEOGRAPHY DIAGRAM



Name: _____

GEOGRAPHY TERMINOLOGY

Instructions: Using a glossary, write a definition or description of the following words.

TERM	DEFINITION
Geography	
Physical Geography	
Cultural Geography	
Cartography	
Geographic Information System	
Grid System	
Latitude	
Longitude	
Absolute Location	
Relative Location	
Region	

Teacher Key

GEOGRAPHY TERMINOLOGY

Instructions: Using a glossary, write a definition or description of the following words.

TERM	DEFINITION (<i>WILL VARY</i>)
Geography	The study of the physical and human landscape of the Earth and the interaction between the two. It is the study of place and space.
Physical Geography	The sub-field of geography that studies the natural (or physical) environment.
Cultural Geography	The sub-field of geography that studies that human characteristics and cultures around the world.
Cartography	The art of mapmaking.
Geographic Information System	The use of computer tools to create maps that “layer” information.
Grid System	A system that uses lines of latitude and longitude to locate places.
Latitude	Horizontal lines that measure distance North or South of the Equator.
Longitude	Vertical lines that measure distance East or West of the Prime Meridian.
Absolute Location	The exact location of a place on Earth using latitude and longitude.
Relative Location	The location of a place in relation to another place. Example: Texas is north of Mexico.
Region	An area that has specific physical or cultural characteristics. Can be formal, functional or perceptual.