Spatial Connections Grades 1-4

Grade Level or Special Area: Connections, 1-4
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Length of Unit: 12 lessons-27 days

I. ABSTRACT

The purpose of this unit is to connect and build specific geographical spatial sense in grades one through four. This unit establishes a strong foundation through the sequencing of prior knowledge and vocabulary of spatial sense. We recommend teaching this unit at the beginning of the year and reviewing throughout the year to reinforce spatial sense to other historical and geographical contexts. A continuum checklist is provided in order to follow each student throughout each grade level to assess and record student progress.

II. OVERVIEW

A. Concept Objectives

1. The student understands the relative location of places. (TEKS 1.4)
2. The student understands the purpose of maps and globes. (TEKS 1.5)
3. The student understands various physical and human characteristics of the environment. (TEKS 1.6)
4. The student develops an awareness of simple geographic tools such as maps, globes, and photographs. (TEKS 2.5)
5. The student understands the locations and characteristics of places and regions. (TEKS 2.6)
6. The student understands the locations and characteristics of places and regions. (TEKS 3.5)
7. The student develops and awareness of geographic tools to collect, analyze, and interpret data. (TEKS 4.6)

B. Content from the *Core Knowledge Sequence*

1. Name your continent, country, state, and community. (pgs. 27, 47, 69)
2. Understand that maps have keys or legends with symbols and their uses. (pgs. 27, 47, 69)
3. Find directions on a map: east, west, north, south. (pgs. 27, 47, 69)
4. Identify major oceans: Pacific, Atlantic, Indian, Arctic. (pgs. 27, 47, 69)
5. The seven continents: Asia, Europe, Africa, North America, South America, Antarctica, Australia. (pgs. 27, 47, 69)
6. Locate: Canada, United States, Mexico, Central America. (pgs. 27, 47, 69)
7. Locate: the Equator, Northern Hemisphere and Southern Hemisphere, North and South Poles. (pgs. 27, 47, 69)
8. Measure straight-line distances using a bar scale. (pg. 69)
9. Use an atlas and, if available, on-line sources to find geographic information. (pg. 69)
10. Measure distances using map scales. (pg. 91)
11. Read maps and globes using longitude and latitude, coordinates, degrees. (pg. 91)
12. Prime Meridian (0 degrees); Greenwich, England; 180 degree line (International Date Line). (pg. 91)
13. Relief maps: elevations and depressions. (pg. 91)

C. Skill Objectives

1. Locate places using the four cardinal directions. (TEKS 1.4A)
2. Describe the location of self and objects relative to other locations in the classroom and school. (TEKS 1.4B)
3. Create and use simple maps to identify the location of places in the classroom, school, community, and beyond. (TEKS 1.5A)
4. Locate places of significance on maps and globes such as the local community, Texas, and the United States (TEKS 1.5B)
5. Use symbols, find locations, and determine directions on maps and globes (TEKS 2.5A)
6. Draw maps to show places and routes (TEKS 2.5B)
7. Identify major landforms and bodies of water, including continents and oceans, on maps and globes (TEKS 2.6A)
8. Locate the community, Texas, the United States, and selected countries on maps and globes (TEKS 2.6B)
9. Use a scale to determine the distance between places on maps and globes (TEKS 3.5B)
10. Identify and use the compass rose, grid, and symbols to locate places on maps and globes (TEKS 3.5C)
11. Draw maps of places and regions that contain map elements including a title, compass rose, legend, scale, and grid system (TEKS 3.5D)
12. Apply geographic tools, including grid systems, legends, symbols, scales, and compass roses, to construct and interpret maps (TEKS 4.6A)

III. BACKGROUND KNOWLEDGE

A. For Teachers

1. Frazee, B. and Guardia, W. (1994) *Helping Your Child With Maps & Globes.* Glenview, IL: GoodYearBooks ISBN 0-673-361-36131-4
2. Hirsch, E.D., Jr. (ed). (2002) *History & Geography Pearson Learning Core Knowledge-4th Grade.* Parsippany, NJ: Pearson Education ISBN 0-7690-5025-5
3. Knowlton, J. and Barton, H. (1985) *Maps and Globes*. New York, NY: Harper Trophy ISBN 0-0644-6049-5

B. For Students

1. For the lessons in this unit students should be familiar with spatial awareness content and skills learned in the previous grade level. New content and skills will be connected from one grade level to the next. This unit connects the following spatial awareness content and skills from the *Core Knowledge Sequence*.

   1st Grade
   1. Your own continent, country, state, and community
   2. Oceans and continents
   3. Reading maps: basic map keys, directions (N,E,S,W)

   2nd Grade
   1. Your own continent, country, state, and community
   2. Name and identify oceans and continents
   3. Map reading (map keys/legends, symbols)

   3rd Grade
   1. Identify and label maps (continents, oceans)
   2. Label symbols, imaginary lines, poles, hemispheres
   3. Measuring straight lines, bar scale

   4th Grade

1. Measure distances
2. Label latitude, longitude, coordinates
3. Relief maps

2. A checklist (Appendix A: Spatial Connections Checklist Grades 1-4) is included in this unit to assess the students' development of spatial awareness content and skills through grades 1-4. This checklist is to follow each student from one grade level to the next.
3. A vocabulary list (Appendix B: Building Spatial Vocabulary Grades 1-4) is included in this unit to help students develop literacy and understand spatial awareness. We suggest the instructor compile the vocabulary words into a spatial awareness dictionary. This dictionary will start in 1st grade and new vocabulary will be added at each grade level. The dictionary will follow the students from one grade level to the next.

IV. RESOURCES

A. *Barney Bear World Traveler* by Trisha Callella, et al.
B. *Maps* by Joellyn Cicciarelli.
C. *Continents and Maps* by Pearson Learning Group
D. *Me On the Map* by Joan Sweeney
E. *The Secret Birthday Message* by Eric Carle
F. *Helping Your Child With Maps & Globes* by Bruce Frazee and William Guardia
G. *History and Geography in 4th Grade* by Pearson Learning Group

V. LESSONS

1st Grade

Length of Lessons: Approximately 5 days

Lesson One: Know Your City and State

A. *Daily Objectives*
   1. Concept Objectives
      a. Students will understand the relative location of places. (TEKS 1.4)
      b. Students will understand the purpose of maps and globes. (TEKS 1.5)
   2. Lesson Content
      a. Name your continent, country, state, and community
      b. Review the seven continents
      c. Identify major oceans
      d. Reading maps
   3. Skill Objective
      a. Students will describe the location of self and objects relative to other locations in the classroom and school. (TEKS 1.4B)
      b. Students will create and use simple maps to identify the location of places in the classroom, school, community, and beyond. (TEKS 1.5A)
      c. Students will locate places of significance on maps and globes such as the local community, Texas, and the United States (TEKS 1.5B)
B. *Materials*
   1. Seven containers that will stack inside each other. (Example: plastic bowls or stacking cubes)

2. Map of the world, North America, state, and community
3. A globe
4. *Barney Bear World Traveler* by Trisha Callella, et al.

C. *Key Vocabulary*

1. Continent - a large body of land
2. Country - a part of land in a continent
3. State - a part of a country
4. City - a part of a state
5. Community- a part of a city
6. Neighborhood - a part of a community
7. Ocean - a large body of salt water

D. *Procedures/Activities*

Note: Before teaching this lesson, prepare seven plastic containers of decreasing size. Label the largest container *North America*. Label the next smallest container *United States of America*. Continue labeling the next smallest container with the following: your state's name (example: *Texas*); your city's name (example: *San Antonio*); your community's name (example: *Central*); your neighborhood, including name of students' school (example*: Hawthorne Elementary*); and your house/apartment, including address (example: *115 West Josephine Street*). Label the last container with the students' name (example: *Oscar Grouch*).

Activity 1:

1. Set purpose: Show a globe and discuss the bodies of land and water. Point to and define the seven continents. Point to and define the four major oceans. Show the North American continent and locate the United States of America. Ask questions about your city and state to assess student's knowledge of city and state. Review each day.

Activity 2:

2. Develop literacy: Read *Barney Bear World Traveler* to help introduce students to the vocabulary words. Familiarize students with these vocabulary words. Compile words into spatial awareness dictionary.

Activity 3:

3. Lesson development: Show the pattern of how areas are defined using the vocabulary words. Use the seven plastic containers to show the areas in decreasing size starting with North America and ending with the individual inside the house. Model how these containers stack inside of one another and relate to the vocabulary words. Model this process several times.
4. Engage students in choral responses to say the correct terms (continent, country, state, city, community, neighborhood, house and person) as you or a student stacks the containers in the correct order. Repeat this activity over several days.
5. Variation: Reverse the process to assess for understanding. Use the containers by starting with the person, then house, neighborhood, community, city, state, United States, and North America while stacking each container by increasing size and order for the correct terms.
6. Closing: Have students write or trace their name, address, school name, city, state, country and continent.
7. Place the seven containers in a center or in a specific location in the classroom for students to use throughout the year for review and practice.

E. *Assessment/Evaluation*

1. Observe students using the containers while they practice saying and stacking the containers for individual learning and self-assessment.
2. Evaluate student's ability to know and verbalize their name, address, school name, city, state, country and continent.

Lesson Two: Using Maps

A. *Daily Objectives*
   1. Concept Objectives
      a. Students will understand the relative location of places (TEKS 1.4)
      b. Students will understand various physical and human characteristics of the environment. (TEKS 1.6)
   2. Lesson Content
      a. Reading maps
      b. Basic map keys
      c. Cardinal directions
      d. Find directions on a map
   3. Skill Objectives
      a. Students will locate places using the four cardinal directions. (TEKS 1.4A)
      b. Students will describe the location of self and objects relative to other locations in the classroom and school. (TEKS 1.4B)
      c. Students will interpret a map key.
      d. Students will locate places on maps. (TEKS 1.5A)
      e. Students will analyze where to locate a city.

B. *Materials*
   1. World map
   2. A globe
   3. Appendix C: Where Would You Build a City? – Outline Map
   4. Appendix D: Where Would You Build a City? – Elevation Map
   5. Appendix E: Where Would You Build a City? – Rainfall Map
   6. Appendix F: Where Would You Build a City? – Vegetation Map
   7. Appendix G: Where Would Your Build a City? – Products Map
   8. Flashlight
   9. Compass (optional)
   10. Cardinal direction letters to put on classroom walls
   11. *Maps* by Joellyn Cicciarelli

C. *Key Vocabulary*
   1. Globe - a map of the earth
   2. Map - a tool used to find information about a place
   3. Directions - specific ways to find a place
   4. Symbols - objects used to show something on a map
      Map key or legend - a table or chart that helps you read a map and shows you the meaning of symbols

D. *Procedures/Activities*

   Activity 1:
   1. Set purpose: Show a globe and a variety of maps. Review land and water areas. Explain how maps are tools that help us know more about a specific area and how they help people know where they are going.

2. Show a variety of map keys and explain the purpose and definition of a key/legend. Explain symbols and how they help in reading maps.
3. Show maps with directions and discuss why directions are important.
4. Develop literacy: Read the story *Maps*. Review and develop the vocabulary words and their meanings. Make selections for word wall. Relate again how maps contain information about people and where they live. Explain that symbols, directions, and map keys all help us read maps. Compile words into spatial awareness dictionary.

Activity 2:

5. Lesson development: Discuss that the sun is one way we can determine directions. Take students outside to view the sun in the morning (east) at noon (in the middle) and in the afternoon (west). Explain that the earth moves around the sun and that the sun is not moving. Use the globe to demonstrate the earth moving and rotating around the sun.
6. Have students represent the earth by standing in a circle facing outwards while holding hands. The teacher will represent the sun by standing in the center of the circle. Then, have students rotate counterclockwise, like the earth, around the instructor (the sun). Use a flashlight or a bright light so students can see what causes daylight by the earth moving east to west.

Activity 3:

7. Lesson development: Using the sun and/or a compass, locate the north wall of your classroom. Repeat this step to mark the east, west, and south wall.
8. Help children locate and understand what objects in the room are closer to the north wall, south wall, etc. Use the cardinal directions frequently to locate objects in the classroom.

Activity 4:

9. Lesson development: Show a variety of maps from the book *Maps.* Have students describe and discuss the symbols found in the map keys of each map.
10. Select various items from the classroom. Have students create symbols corresponding to each item. (For example: a rectangle for the teacher's desk or a square for the students' desks)
11. Have students select items from the school, and create their own symbols for each item.
12. Use Appendix H to assess students' understanding of symbols and directions.

Activity 5:

13. Lesson development: Divide students into small groups of 3 to 5. Have students respond to the following prompt: *Imagine that you and your classmates are shipwrecked on an island. There is no one there to help you. Trapped on the island, you and your classmates decide to build a city. Fortunately, you have found different maps (Appendix C-G) of the island once made by a pirate captain. Use these maps to help you create your city.*
14. Each group must first choose where to locate their city? (Use Appendix C) Have students mark their chosen location and share reasons for their choice.
15. Have students identify and mark the cardinal directions and map key on the map. Repeat this process for maps D-G. (Appendix D is an elevation map. Appendix E is a rainfall map. Appendix F is a vegetation map. Appendix G is a product map.)
16. As students go through each map, have them discuss and decide if the particular map would give them a reason to change the location of their city? (Note: There are no right answers as the students analyze each map.)

17. Variation: Follow the same procedures in this activity except make maps of your state using the same types of maps.

Activity 6:

18. Closing: Display a map from each group. Have students identify their city and list on the board their reasons for choosing the specific location of their city.

E. *Assessment/Evaluation*

1. Use student self assessment and their reasons why they located their city where they did after the shipwreck activity
2. Use the map in Appendix H to construct a similar map of your classroom to assess whether the students can locate objects, integrated symbols, and determine direction.
3. Use the Spatial Connections Checklist (Appendix A) to assess students' spatial awareness understanding for 1st grade.

2nd Grade

Length of lessons: approximately 7 days

Lesson Three: Oceans and Continents

A. *Daily Objectives*

1. Concept Objectives
   a. Students will develop an awareness of simple geographic tools such as maps, globes, and photographs. (TEKS 2.5)
   b. Students will understand the locations and characteristics of places and regions. (TEKS 2.6)
2. Lesson Content
   a. Major oceans (Pacific, Atlantic, Indian, Arctic)
   b. Seven continents (Asia, Europe, Africa, North America, South America, Antarctica, Australia)
   c. Maps and globes (Equator, Northern Hemisphere and Southern Hemisphere, North and South Poles)
3. Skill Objectives
   a. Students will identify major landforms and bodies of water, including continents and oceans, on maps and globes. (TEKS 2.6A)
   b. Students will locate the Equator, Northern Hemisphere and Southern Hemisphere, and North and South Poles.

B. *Materials*

1. *Continents and Maps*, edited by E.D. Hirsch Jr.
2. Appendix I: World Map
3. Overhead projector, overhead pen
4. Appendix J: North America
5. Appendix K: South America
6. Appendix L: Europe
7. Appendix M: Africa
8. Appendix N: Asia
9. Appendix O: Australia
10. Appendix P: Antarctica
11. Pencils
12. Globes
13. Blue balloons

14. Scissors
15. Yarn
16. Crayons/colored pencils
17. Markers
18. Glue

Note: The continents in Appendix J-P can be cut out and used to show the shapes of the continents on the overhead. The continents from those same appendices can be cut out and used in making the globes. Depending on the size of the balloons, the continents may need to be reduced in size when making copies of the continents for students to glue onto the balloons.

C. *Key Vocabulary*

1. Continent - a very large body of land
2. Ocean - a large body of salt water
3. Globe - a map of the earth
4. Equator - an imaginary line that divides the globe into two equal parts (Northern and Southern Hemispheres)
5. North Pole - northernmost part of a globe
6. South Pole - southernmost part of a globe
7. Hemisphere - "half a sphere," Northern and Southern Hemispheres of the earth

D. *Procedures/Activities*

Activity 1:

1. Set Purpose: Ask students what they know about continents. How many continents are there? Which continent do they live on? Which continent would they like to visit? Why?
2. Develop Literacy: Read the Pearson Learning book *Continents and Maps* aloud to students. Using the illustrations in the text, point out the four major oceans. Compile words into spatial awareness dictionary.
3. After reading *Continents and Maps*, ask students the same questions asked before reading the book. If the equator, North and South Poles, and Northern and Southern Hemispheres have not been mentioned, address them now. Pay attention to student responses to determine if reading the book changed students' responses and resulted in greater knowledge of the continents.

Activity 2:

4. Lesson Development: Give each student a blank map of the world. Place the shape of one continent on the overhead. Discuss and describe its characteristics as students label the continent on their map. Repeat this procedure with the six remaining continents. Locate each continent on a globe as it is discussed to allow students to acquire a more realistic representation of the world.
5. Give each student handouts of the continents (Appendix J-P). Provide students with a word bank containing the names of the continents. Using the word bank and their world map as a guide, have students label the continents. Have students color the continents green, then cut out the continents.

Activity 3:

6. Lesson development: Have students make their own "globe." Give each student an already inflated balloon. Have extra balloons blown up in case they pop.
7. Using a globe as a reference, guide students through gluing each continent onto their balloons.
8. Have students cut a piece of string equal to the circumference of their globe, dip the string in glue, then glue it around their globe to represent the equator.

9. Give each student a sheet of paper containing the names of the four major oceans, the equator, the North Pole, and the South Pole. Have students cut out the labels and glue the labels onto their balloons.
10. Discuss how the equator divides the globe into the Northern and Southern Hemispheres. Ask questions to assess student understanding. (Is Antarctica located in the Northern or Southern Hemisphere? What continents are located in the Northern Hemisphere? Etc.)

Activity 4:

11. Closing: Using the vocabulary learned in the lesson, have students write a paragraph describing what is on their globe. Write vocabulary words on the board so students can refer to the words while writing their paragraph.
12. Variation: If you would like the student made globes to be something the students will have for a while and plan on it being something they will refer to throughout the year, you should use blue paper and paper maché to make the globes rather than balloons (balloons will deflate over time).

E. *Assessment/Evaluation*

1. Provide students with the following rubric at the beginning of the lesson:

4	All continents, oceans, and poles are labeled correctly. Continents are placed right side up, in proper relation to one another. Paragraph describing globe demonstrates a thorough understanding of the vocabulary.
3	All continents, oceans, and poles are labeled correctly. Continents are placed right side up, in proper relation to one another. Paragraph describing globe demonstrates some understanding of the vocabulary.
2	Some continents and oceans are labeled and some labels are missing. Some continents are upside down or improperly grouped together. Paragraph describing globe demonstrates little understanding of the vocabulary.
1	The activity was attempted.

Lesson Four: Where Am I?

A. *Daily Objectives*

1. Concept Objective
   a. Students will understand the locations and characteristics of places and regions. (TEKS 2.6)
2. Lesson Content
   a. Continent, country, state, city, and community
3. Skill Objective
   a. Students will locate the community, Texas, the United States, and selected countries on maps and globes. (TEKS 2.6B)
   b. Students will name their continent, country, state, and community.

B. *Materials*

1. Eight containers, graduated small to large
2. *Me on the Map* by Joan Sweeney
3. Construction paper
4. Scissors
5. Markers
6. Brads
7. Appendix Q: Where Am I?

C. *Key Vocabulary*

1. Neighborhood - a part of a community

2. Community - a part of a city
3. City - a part of a state
4. State - a part of a country
5. Continent - a very large body of land
6. Country - a part of land in a continent
7. World - the seven continents and bodies of water on earth
8. Map - a tool used to find information about a place

D. *Procedures/Activities*

Activity 1:

1. Set Purpose: Using the activity from Lesson One in 1st grade, review the concept of me, neighborhood, community, city, state, etc. through the use of different sized containers.
2. Develop Literacy: Read *Me on the Map* aloud to students. Discuss. Check for student understanding of concepts. Ask questions to assess student understanding of the relationship between a neighborhood, community, city, state, country, continent, and world. Compile words into spatial awareness dictionary.

Activity 2:

3. Give each child 9 pre-cut circles of paper in the following diameters: 9", 8", 7", 6", 5", 4", 3", 2", and 1." On the edge of the smallest circle, have students write "Me." On the edge of the second smallest circle, have students write "Home." On circles increasing in size, have students write Neighborhood, Community, City, State, Continent, and World. Using a brad, secure the clips in ascending order of size. Be sure to discuss that the smallest circle represents "Me," the next largest circle represents "Home," etc.
4. As students add each circle to the brad, give them an example or show them a picture of each concept.

F. *Assessment/Evaluation*

1. To ensure that students can relate these concepts to their own lives, have them complete a worksheet (Appendix Q).

Lesson Five: Making and Reading Maps

A. *Daily Objectives*

1. Concept Objective
   a. Student will develop an awareness of simple geographic tools such as maps, globes, and photographs. (TEKS 2.5)
   b. Students will understand that maps have keys or legends with symbols and their uses.
2. Lesson Content
   a. Map keys, legends, and symbols
3. Skill Objectives
   a. Students will use symbols, find locations, and determine directions on maps and globes. (TEKS 2.5A)
   b. Students will draw maps to show places and routes. (TEKS 2.5B)

B. *Materials*

1. *The Secret Birthday Message* by Eric Carle
2. Construction paper
3. Markers
4. Large piece of paper
5. Several maps containing map keys

6. Photographs of students' bedrooms
7. Blank white paper

C. *Key Vocabulary*

1. North - one of four main cardinal directions on Earth
2. East - one of four main cardinal directions on Earth
3. South - one of four main cardinal directions on Earth
4. West - one of four main cardinal directions on Earth
5. Symbol - something that stands for something else
6. Map key – a table or chart that helps you read a map and shows you the meaning of symbols

D. *Procedures/Activities*

Activity 1:

1. Set Purpose: Reinforce the concepts of North, East, South, and West learned in 1st grade. Appropriately label the walls of the classroom North, East, South, and West.
2. Using the classroom, discuss big and small objects within the room. Discuss the impracticality of using real objects on a map. Ask students how objects could be represented on a map without placing the actual objects on the map.

Activity 2:

3. Develop Literacy: Read *The Secret Birthday Message* aloud to the students. Ask students how Tim decoded the Secret Message. (The message contained symbols). Ask students what purpose the symbols served. Have a discussion about basic spatial and directional concepts used in the book such as up, down, below, in, and through. Compile words into spatial awareness dictionary.

Activity 3:

4. Lesson Development: Have the class decide on symbols for representing objects in the classroom. Ask students if they think the symbols should somewhat resemble the actual objects. Why? The class may come up with symbols for student desk, carpet, wastebasket, bookshelves, sink, flag, window, etc.
5. As a class, make a map of the classroom. On a large piece of paper, label North, East, South, and West. Using the North, East, South, and West labels on the classroom walls to help them, have students identify where to draw symbols on the map.

Activity 4:

6. Closing: Ask students how people looking at the map of their classroom will know what the symbols represent. Introduce the concept of a map key. Discuss how maps have keys that provide information for reading the map. Show several different maps with map keys to the students. As a class, make a map key for the map of your classroom.

E. *Assessment/Evaluation*

1. Have students bring in a picture of their bedroom at home. Using the picture and their own memory, have students create a map of their bedroom.
2. So students are aware of the expectations, provide students with a checklist containing the following criteria before beginning the activity.
   ___ North, East, South, and West accurately labeled.
   ___ Map key provided.
   ___ Map key includes symbols and what each symbol stands for.
   ___ Symbols resemble the real objects.
   ___ Symbols on map match symbols on map key.
   ___ Objects appropriately placed, in proper relation to one another.

3. Use the Spatial Connections Checklist (Appendix A) to assess students' spatial awareness understanding for 2nd grade.

3rd Grade

Length of lessons: approximately 7 days

Lesson Six: Living Map

A. *Daily Objectives*
   1. Concept Objective
      a. Students will understand the concepts of location, distance, and directions on maps and globes. (TEKS 3.5)
   2. Lesson Content
      a. The continents: North America, South America, Europe, Asia, Africa, Australia, Antarctica
      b. The oceans: Atlantic, Pacific, Indian, Arctic
   3. Skill Objective
      a. Students will draw maps of places and regions that contain map elements including a title, compass rose, legend, scale, and grid system. (TEKS 3.5D)

B. *Materials*
   1 Overhead of a world map
   2. Colored butcher paper (must have blue)
   3. Appendix R: The Continent Song
   4. Appendix S: The Oceans Song
   5. Globe ball (beach ball with the map of the world)
   6. Scissors
   7. Pencils
   8. Living Map

C. *Key Vocabulary*
   1. Continent - a very large body of land
   2. Ocean - a large body of salt water

D. *Procedures*

Note: Before teaching this lesson, you need seven large pieces of butcher paper. You will also need an additional piece of large blue butcher paper. The map the class is going to assemble is called the Living Map, and it should be used throughout the year to work on map skills as well as content from the Sequence. For example, students in third grade study the explorers, and they can use different colors of yarn on the Living Map to map the routes of the explorers.

Activity 1:

1. Set purpose: Show a world map on the wall. Point to and explain the different continents and oceans on the map. Ask students if they know what continent they live on. Review the concepts of neighborhood, community, city, state, country, continent, and world. Each day, review the continents and oceans on the Living Map.

Activity 2:

2. Develop literacy: Discuss the vocabulary words. To help students remember the continents and oceans, give them the words to The Continent Song (Appendix R) and The Oceans Song (Appendix S). Have students sing these songs, then go to the map and point to the continent and ocean that is being named. Then compile these vocabulary words into spatial awareness dictionary.

Activity 3:

3. Lesson Development: Play a game called Beach Ball Globe. Pass the ball to each student. As individual students catch the ball, have them name the continent their right thumb is closest to. After doing this a couple times through, have students switch to naming the ocean closet to their left thumb.

Activity 4:

4. Closing: Have students begin to assemble the Living Map. Break students into seven groups, one for each continent. Put a world map on the overhead and have students trace the overhead map onto their colored butcher paper. Next, have students cut out the traced continents. As a class, put the continents onto a large piece of blue butcher paper.

E. *Assessment/Evaluation*

1. Evaluate the student's ability to understand where the continents and oceans are during Beach Ball Globe as well as during The Continent Song and The Oceans Song.
2. Put the Living Map on the wall and observe how students label the components of a map including the title and the map key with symbols.

Lesson Seven: Map Key

A. *Daily Objectives*

1. Concept Objective(s)
   a. Students will understand the concepts of location, distance, and directions on maps and globes. (TEKS 3.5)
2. Lesson Content
   a. Symbols, imaginary lines, poles, and hemisphere
3. Skill Objective(s)
   a. Students will identify and use the compass rose, grid, symbols to locate places on maps and globes. (TEKS 3.5 C)

B. *Materials*

1. Empty cola can
2. Appendix T: Where is the Equator?
3. Appendix U: What are the Hemispheres?
4. Construction paper
5. Glue
6. Scissors
7. Globes
8. Appendix V: Map Key of Continents and Oceans
9. Colored yarn for equator

C. *Key Vocabulary*

1. Equator - an imaginary line that divides the globe into two equal parts (Northern and Southern Hemisphere); the latitude line (0 degrees) that runs across the center of the earth
2. Hemisphere - "half a sphere," Northern and Southern Hemispheres of the earth
3. North Pole - northernmost part of the globe
4. South Pole - southernmost part of the globe

D. *Procedures/Activities*

Note: Before teaching this lesson, make sure each student has a cola can. You are going to help the students assemble a map key of the continents and oceans. The students will use different colors to identify each continent and then fill in the map key (Appendix V). Students will then come up with symbols to represent the oceans, and then add them to the map key and the Living Map. Recall that the Living Map and map key are to be used and reinforced throughout this lesson and throughout the year.

Activity 1:

1. Set Purpose: Show how the wall map key helps find things on the map. As a class, begin to assemble the Living Map Key of the continents and oceans. Have yarn to show the equator and prime meridian.

Activity 2:

2. Develop Literacy: Discuss and develop the vocabulary of the unit. Have students describe what they see in each word and discuss the meaning. Compile words into spatial awareness dictionary.

Activity 3:

3. Lesson Development: Direct the students' attentions to the Equator, North Pole, and South Pole on the worksheet (Appendix T). Cover the cola can with the worksheet. Explain that the cola can represents the planet earth. Locate the equator and poles on the map and globe. Have students hold the cola can in the middle by the equator. Repeat this process with the prime meridian, followed by the poles.

Activity 4:

4. Lesson Development: Have students cut two construction paper circles three or four inches in diameter. Mark the four cardinal directions on the circles. Cut four half-circles of the same radius, each in a contrasting color to the whole circles. Glue two half-circles to each circle, one to each side, positioned so that one circle represents north and south hemispheres and the other circle represents east and west hemispheres.
5. Explain that the northern and southern, and eastern and western hemispheres are halves of the globe, like the half-circles are halves of the whole circles.
6. Closing: Have each child construct his or her own hemispheric world with the worksheet (Appendix U).

E. *Assessment/Evaluation*

1. Evaluate the student's ability to use the colors to find continents on the map key.
2. Evaluate the student's ability to understand with the cola can of the equator, and the poles. Have the students identify the equator and the poles using the map key.
3. Have the students identify the hemispheres on the Living Map.

Lesson Eight: Give an Inch and They'll Take a Mile

A. *Daily Objectives*

1. Concept Objective(s)
   a. Students will understand the concepts of location, distance, and directions on maps and globes. (TEKS 3.5)
2. Lesson Content
   a. Bar scales and distances on a map
3. Skill Objective(s)
   a. Students will use a scale to determine the distance between places on maps and globe. (TEKS 3.5B)

B. *Materials*

1. String
2. Rulers
3. State maps
4. Appendix W: How do You Measure Scale?

C. *Key Vocabulary*

1. Bar scale or map scale – the relationship or proportion between the distance on a map and the actual distance on the ground

2. Distance - the space between two objects or places

D. *Procedures/Activities*

Note: For this lesson, each student needs access to a ruler. The teacher needs to cut 4" pieces of string for use in the lesson. The students will freely measure different objects around the room with a ruler. They will use the string as a unit to measure other objects around the room.

Activity 1:

1. Set Purpose: Show and discuss with students the bar scale. Explain to students the importance of understanding the characteristics of a map scale in order to read a map and understand the relation of space on a map compared to space in real life. Using bar scales is a crucial skill in having a strong understanding of spatial awareness.
2. Develop Literacy: Show and develop the relationship between distance and bar scale over the next few class periods. Compile the vocabulary words into a spatial awareness dictionary

Activity 2:

3. Lesson Development: Have students determine the length of their desk or table in hands. Have students use various objects to compute the length, width, or height of the room.
4. Pass out a 4" piece of string to each student. Have students compute the number of units of string that are needed for the width of their desk, table top, and other items in the classroom.
5. Show how the 4" pieces of string were used as a scale to measure the distance between places. Explain that a scale is a common unit and the unit is converted into actual distance.
6. Discuss the value of a scale and how impossible it would be to have the actual distances drawn on maps instead of scale distances.

Activity 3:

7. Closing: Give students the Scale Worksheet (Appendix W). Have students use a ruler for the worksheet.

E. *Assessment/Evaluation*

1. Observe students understanding of the relationship between real life distance and the bar scale during the measurement activity as well through the worksheet (Appendix W).
2. Use the Spatial Connections Checklist (Appendix A) to assess students' spatial awareness understanding for 3rd grade.

4th Grade

Length of lessons: approximately 8 days

Lesson Nine: Measuring Distances

A. *Daily Objectives*

1. Concept Objective(s)
   a. Students will understand how to measure distances on a map. (TEKS 4.6)
2. Lesson Content
   a. Measure distances using map scales and map keys
3. Skill Objective(s)
   a. Students will apply scales, legends, and symbols to construct and interpret maps. (TEKS 4.6A)

B. *Materials*

1. Basic map of a route from someone's home to the school drawn on a poster board, preferably laminated. Provide a general idea of major streets and landmarks. The map should also include an untitled map scale and map key for the students to identify and label. The map scale should indicate that 1 inch equals 1 mile.
3. Vocabulary words (Write each word separately in large, bold print on one side of a blank sheet of paper, and write its definition on the other side.)
4. Map of Paul Revere's Ride (also include a transparency of the map) (A sample map can be found on page 2 in the fourth grade Pearson Learning Core Knowledge book.)
5. Thread (preferably red)
6. Rulers

C. *Key Vocabulary*

1. Map key - a table or chart that helps you read a map and shows you the meaning of symbols
2. Map scale - the relationship or proportion between the distance on a map and the actual distance on the ground.

D. *Procedures/Activities*

Activity 1:

1. Set Purpose: Ask students to give examples of maps they have seen on television, in books, or in newspapers. *(Possible answers: weather maps, maps of the city, maps of the world)* Then, ask students when they might need to use a map. *(Possible answers: when they want to find a friend's house, when they are looking for a ride at an amusement park or zoo)*
2. Tell students that you have something to show them, and you want them to describe what they see. Then, show students the map of a person's route from home to school (Do not tell them what the map is yet.).
3. Make a list of the students' responses on the board. Next, ask students what they think the map shows and how they know.
4. Develop literacy: Show the vocabulary words. For each word, have students describe what they see. (Students may identify root words, word families, blends, diagraphs, syllables, etc.) Discuss the meaning of each word. Compile the vocabulary words into a spatial awareness dictionary
5. Have students brainstorm ways to help them recognize and remember the meaning of the word. Then place the words into the binder or classroom geographical dictionary.
6. Select students to label or title the map key and map scale on the large map.
7. Lesson development: Ask students why it would be important to know the distance of something.
8. Ask students how they might find the real distance from home to school on the map.
9. Model and guide the students on how to measure the distance by using the map scale and map key. (First, select one student to identify and circle the house and the school by using the map key. Then, select another student to measure the number of inches between the two locations using a ruler. Ask students how they would convert the inches into miles by using the map scale.)

Activity 2:

10. Lesson development (history connection): Have students look at the map of Paul Revere's Ride on the overhead. Explain to them how the route between two locations is not always straight.

11. Ask students how they might measure distance in such a situation.
12. Use the thread and model one way of measuring the winding route of Paul Revere's ride. Then, select students to use the map scale to convert the distances into miles.
13. Pair students up and have them measure Paul Revere's ride.

Activity 3:

14. Closing (history connection): Have students construct their own map based upon the following prompt: Imagine that you are living in colonial times. Create a map for your friend to show them how to get from the schoolhouse to your home. Be sure to include a map scale, a map key, and important landmarks. When students have completed their maps, they can measure each other's distances.

E. *Assessment/Evaluation*

1. Teacher will assess through observation of student participation in class discussion.
2. Teacher will assess through observation and talking with the students during individual and group work.
3. Teacher will assess through a checklist (Appendix X) and a student-filled checklist (Appendix Y) for Activity 3.

Lesson Ten: Location by Latitude and Longitude

A. *Daily Objectives*

1. Concept Objective(s)
   a. Students will understand characteristics and purposes of latitude and longitude. (TEKS 4.6)
2. Lesson Content
   a. Latitude and longitude
   b. Prime meridian
   c. Degrees
   d. Coordinates
3. Skill Objective(s)
   a. Students will identify and know characteristics of latitude and longitude. (TEKS 4.6A)
   b. Students will locate points on a grid. (TEKS 4.6A)
   c. Students will locate points in terms of latitude and longitude. (TEKS 4.6A)

B. *Materials*

1. Vocabulary words (Write each word separately in large, bold print on one side of a blank sheet of paper, and write its definition on the other side.)
2. Appendix Z: Map of the World
3. Transparency of general map of the world (Transparency can be made with Appendix Z)
4. Transparency of outline of the world map with lines of latitude (See Appendix Z)
5. Transparency of outline of the world map with lines of longitude (See Appendix Z)
6. A piece of large butcher paper
7. A globe
8. Appendix AA: What are Latitude and Longitude?
9. Appendix BB: In My City
10. Appendix CC: Teacher Checklist for Grid Activity

C. *Key Vocabulary*

1. Equator - the latitude line (0 degrees) that runs across the center of the earth

2. Prime meridian - zero degrees longitude; the longitude line that runs through Greenwich, England
3. Latitude - distance, measured in degrees north or south of the equator
4. Longitude - distance, measured in degrees east or west of the prime meridian
5. Meridian - an imaginary line that runs north-south on a globe or map but measures degrees of longitude east or west of the prime meridian
6. Parallel - an imaginary line that runs eat-west on a globe or map but measures degrees of latitude north or south of the equator

D. *Procedures/Activities*

Activity 1:

1. Set Purpose: Show transparency of map of the world (Appendix Z). Have students make observations about the map. Ask them what they see.
2. Develop Literacy: Show and discuss the definition for *equator.* Select a student to locate, draw, and label the equator on the map. Compile the vocabulary words into a spatial awareness dictionary
3. Then, ask students what *parallel* means. Show the definition for *parallel*. Discuss how there are other imaginary lines that run parallel to the equator.
4. Introduce and discuss the definitions for *latitude.* Select a student to lay down the transparency with the lines of latitude on top of the map.
5. Then, introduce and discuss the definition for *prime meridian*. Select a student to locate, draw, and label onto the transparency the prime meridian.
6. Build up the map by repeating these steps for the remaining vocabulary words.
7. Have students describe the difference between words that are similar, such as *latitude* and *longitude* and *meridian* and *prime meridian.*
8. Compile vocabulary words into the classroom geographical dictionary.

Activity 2:

9. Lesson Development: Have students study a globe. Allow them to compare and contrast the globe to the map they just worked with. Then, select students to find the equator, prime meridian, lines of latitude, and lines of longitude on the globe.
10. On chart paper, have students list and discuss the characteristics of latitude and longitude. Ask students to brainstorm ways to help them remember and differentiate the characteristics of latitude and longitude.
11. On a piece of butcher paper, make a simple grid system and have students locate various points on the grid.
12. Finally, have students do the problems on "What are Latitude and Longitude?" (Appendix AA).

Activity 3:

13. Closing: Give each student "In My City" (Appendix BB). Let students draw a city and make a grid overlay using latitude and longitude. Have students locate various places on their maps using their grid system.

E. *Assessment/Evaluation*

1. Teacher will observe student participation and progress during discussions.
2. Teacher will observe student participation and progress during independent work on maps.
3. Teacher will assess through a checklist for Activity 3. (Appendix CC)

Lesson Eleven: Different Places, Different Times

A. *Daily Objectives*

1. Concept Objective(s)
   a. Students will understand how characteristics of places, such as time and climate, vary at different points on a map. (TEKS 4.6)
2. Lesson Content
   a. Prime Meridian (0 degrees); Greenwich, England; 180 degrees (International Dateline)
3. Skill Objective(s)
   a. Students will locate places by latitude and longitude. (TEKS 4.6A)
   b. Students will construct research on the internet.

B. *Materials*

1. Vocabulary words (Write each word separately in large, bold print on one side of a blank sheet of paper, and write its definition on the other side.)
2. Large map of world
3. Large map of United States
4. Appendix DD: Concentration Game (Choose 10 countries. Write the name of a country on each card. Write the corresponding coordinate of each country on each of the remaining cards)
5. A map of the world for concentration game
6. Blank paper
7. Appendix EE: My Travel Brochure Scoring Checklist
8. Appendix FF: Teacher's Scoring Guide for Travel Brochure

C. *Key Vocabulary*

1. Prime Meridian - zero degrees longitude; the longitude line that runs through Greenwich, England
2. Greenwich England - place where the Prime Meridian runs through
3. International Date Line - 180 degrees line; a line that determines the time of a location

D. *Procedures/Activities*

Activity 1:

1. Review and Set Purpose: Have students review how to locate places or coordinates on a map. Locate America on the large map of world, and place a marker on it. Model how to write the coordinate of the location on the board. Select students to locate other countries on the large map (ie: Britain, France, Spain, Japan).
2. Place students into pairs or small groups. Distribute to each pair a set of cards (Appendix DD) and a map for the concentration game to each pair. Students are to mix the cards up and place them all face down. Students will take turns flipping over two cards at a time. The object of the game is to match the name of a country with its corresponding coordinate. Students must use the map to figure out the coordinate for each country they encounter. When all the cards have been paired up, the student with the most pairs wins.

Activity 2:

3. Lesson Development: Have students locate and give the coordinates to their state on a large map. On the board, make a chart that includes state, time, and climate. Have students fill out the chart listing the characteristics of the state in terms of overall climate and time. Discuss their responses.
4. Then, have students locate another state on the map and repeat the

process. (Select a state with a different climate and time zone.) Fill out the chart with characteristics of the overall climate and time. Discuss and have students compare the two states. Repeat the process with other states.

5. Develop Literacy: Show and discuss definitions of Prime Meridian, Greenwich, England, and International Dateline. Have students locate each item on the large map. Discuss how climate and time varies between certain states and countries due to their relations with the Prime Meridian and International Date Line. Compile the vocabulary words into a spatial awareness dictionary

Activity 3:

6. Closing: Have students work on the following prompt: *You have just been chosen by a travel agency to create a brochure for an exciting vacation spot. You must first choose a vacation spot. Be sure to include the coordinates of the vacation spot and describe what the weather is like there at this time of the year. Also remember to include the time difference of your vacation spot compared to that of the United States. Include on the brochure a list of items one would need to pack for the trip. Remember to be creative and make your brochure colorful and attractive. You will use the internet to help you find information.*
7. Distribute the student checklist for this activity (Appendix EE).

E. *Assessment/Evaluation*

1. Teacher will make informal observations through student participations during discussions.
2. Teacher will observe student performances and progress during concentration game.
3. Teacher will assess the project using a rubric (Appendix FF).

Lesson Twelve: What a Relief!

A. *Daily Objectives*

1. Concept Objective(s)
   a. Students will understand the characteristics and purposes of a relief map. (TEKS 4.6)
2. Lesson Content
   a. Relief maps: elevation and depressions
3. Skill Objective(s)
   a. Students will identify characteristics of a location on a relief map. (TEKS 4.6A)
   b. Students will construct their own relief map. (TEKS 4.6A)

B. *Materials*

1. Appendix GG: K-W-L Chart for Relief Maps
2. Colored pencils
3. Vocabulary words (Write each word separately in large, bold print on one side of a blank sheet of paper, and write its definition on the other side.)
4. Large relief map of United States that includes elevation and depressions
5. Appendix HH: Outline Map for "Camp _____"
6. Appendix II: Assessment Rubric for Relief Map Project

C. *Key Vocabulary*

1. Relief map - a map that shows the elevation and depression of different areas
2. Elevation - how high something (such as a mountain) is
3. Depression - an area that is lower than the surrounding land

D. *Procedures/Activities*

Activity 1:

1. Set Purpose: Show students large relief map of United States. Have students tell what they see on the map. Have each student fill out first two portions of the K-W-L chart (Appendix GG).
2. Develop Literacy: Introduce and discuss vocabulary words. Have students tell how *elevation* and *depression* are represented on the map.
   Have students locate their state on the map. Discuss and list on the board the different characteristics of the state in terms of elevation and depression. Allow students to locate and find the elevation and depression for other states. Compile the vocabulary words into a spatial awareness dictionary

Activity 2:

3. Lesson Development: Show student different examples of various relief maps. Then, discuss the differences and similarities between them (particularly in how elevation and depression are shown). Next, model and construct an area of elevation (such as a mountain or hill) as a class. Repeat the process for depression.

Activity 3:

4. Closing: Distribute map outline of "Camp _____" (Appendix HH) to each student Have students respond to the following prompt: *You have just been selected to create a camp ground for "Camp _____." You must first create a name for the new camp. Then draw a relief map of the camp. Include important points in the camp, and show their elevation and depression on the map by using different colors and drawings. Don't forget to label important things on a map, such as map keys, map scales, and other symbols.*
   When students have completed their relief maps, have them each present their maps to the class.

E. *Assessment/Evaluation*

1. Teacher will make observations of student participation during group discussions.
2. Teacher will assess using student entries on K-W-L chart (Appendix GG)
3. Teacher will assess student project and presentation through a rubric for "Camp____" relief map (Appendix II).
4. Use the checklist (Appendix A) to assess the spatial awareness understanding of the 4th grade.

VI. HANDOUTS/ WORKSHEETS

Appendix A: Spatial Connections Checklist Grades 1-4
Appendix B: Building Spatial Vocabulary Grades 1-4
Appendix C: Where Would You Build a City? – Outline Map
Appendix D: Where Would You Build a City? – Elevation Map
Appendix E: Where Would You Build a City? – Rainfall Map
Appendix F: Where Would You Build a City – Vegetation Map
Appendix G: Where Would You Build a City? – Products Map
Appendix H: North, South, East or West
Appendix I: World Map
Appendix J: North America
Appendix K: South America
Appendix L: Europe
Appendix M: Africa
Appendix N: Asia
Appendix O: Australia

Appendix P: Antarctica
Appendix Q: Where Am I?
Appendix R: The Continent Song
Appendix S: The Oceans Song
Appendix T: Where is the Equator?
Appendix U: What are the Hemispheres?
Appendix V: Map Key of Continents and Oceans
Appendix W: How do You Measure Scale?
Appendix X: Teacher Checklist for Map from Schoolhouse to Home
Appendix Y: Student Checklist for Map from Schoolhouse to Home
Appendix Z: Map of the World
Appendix AA: What are Latitude and Longitude?
Appendix BB: In My City
Appendix CC: Teacher Checklist for Grid Activity
Appendix DD: Concentration Game
Appendix EE: My Travel Brochure Scoring Checklist
Appendix FF: Teacher's Scoring Guide for Travel Brochure
Appendix GG: K-W-L Chart for Relief Maps
Appendix HH: Outline Map for "Camp _____"
Appendix II: Assessment Rubric for Relief Map Project

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SPATIAL CONNECTIONS
Appendix A: Spatial Connections Checklist, Grades 1-4

1st Grade

Student knows their name.	Yes	No
Student knows their address.	Yes	No
Student knows their school name.	Yes	No
Student can name their neighborhood.	Yes	No
Student can name their city.	Yes	No
Student can name their state.	Yes	No
Student can name their country.	Yes	No
Student can name their continent.	Yes	No
Student knows cardinal directions.	Yes	No
Student can interpret symbols.	Yes	No
Student can read map key.	Yes	No

↓

2nd Grade

Student can identify the 4 major oceans.	Yes	No
Student can identify the 7 continents.	Yes	No
Student can identify the equator.	Yes	No
Student can identify the Northern and Southern Hemisphere.	Yes	No
Student can identify the North and South Pole.	Yes	No
Student can locate objects using the cardinal directions.	Yes	No
Student can make a basic map.	Yes	No
Student can develop symbols for a map.	Yes	No
Student can make a map key.	Yes	No

↓

3rd Grade

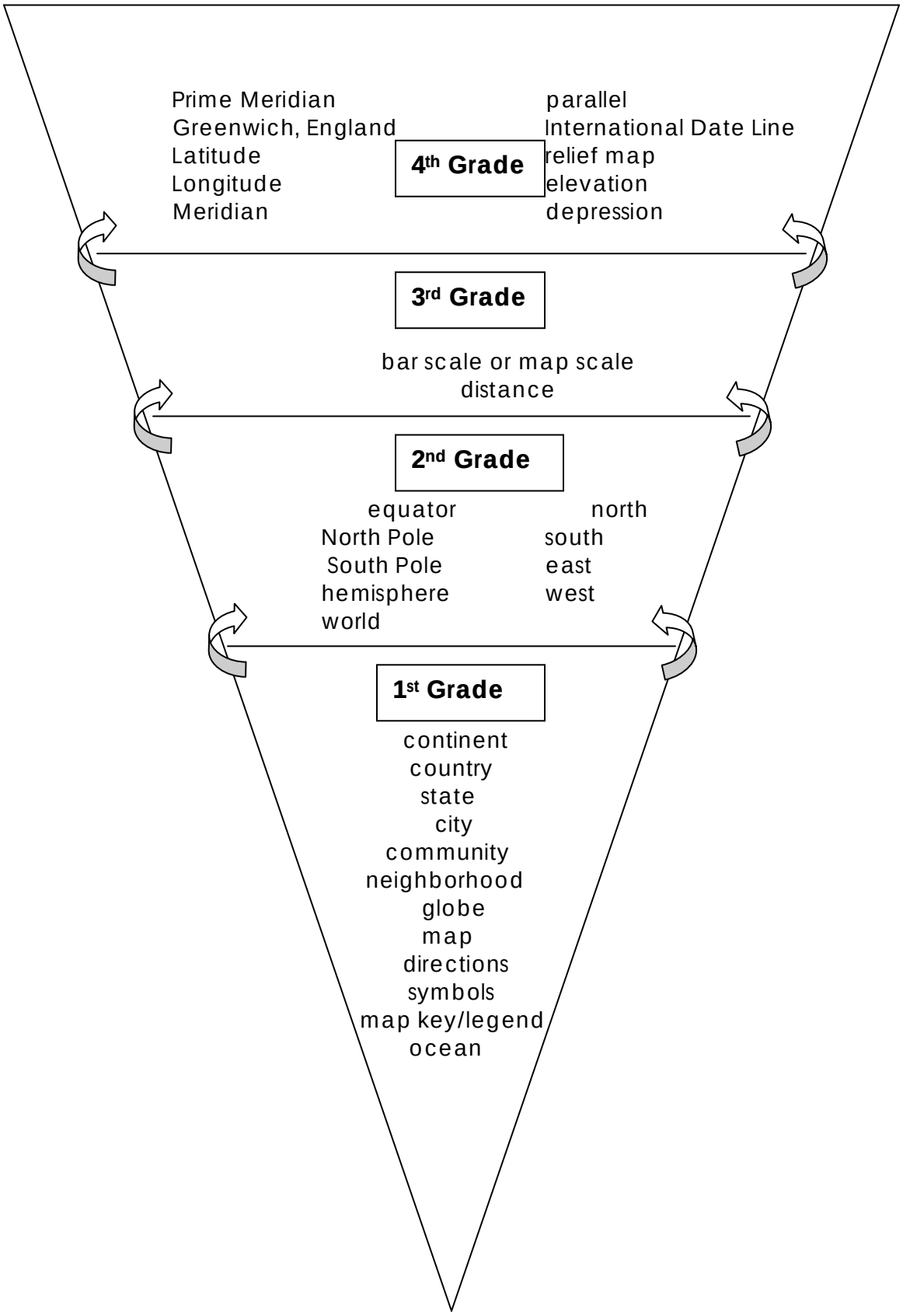
Student is able to locate continents and oceans on globes and maps.	Yes	No
Student is able to draw maps including title, legend, and scale.	Yes	No
Student can use legends to locate places and symbols.	Yes	No
Student understands relationship between distance and scale.	Yes	No

↓

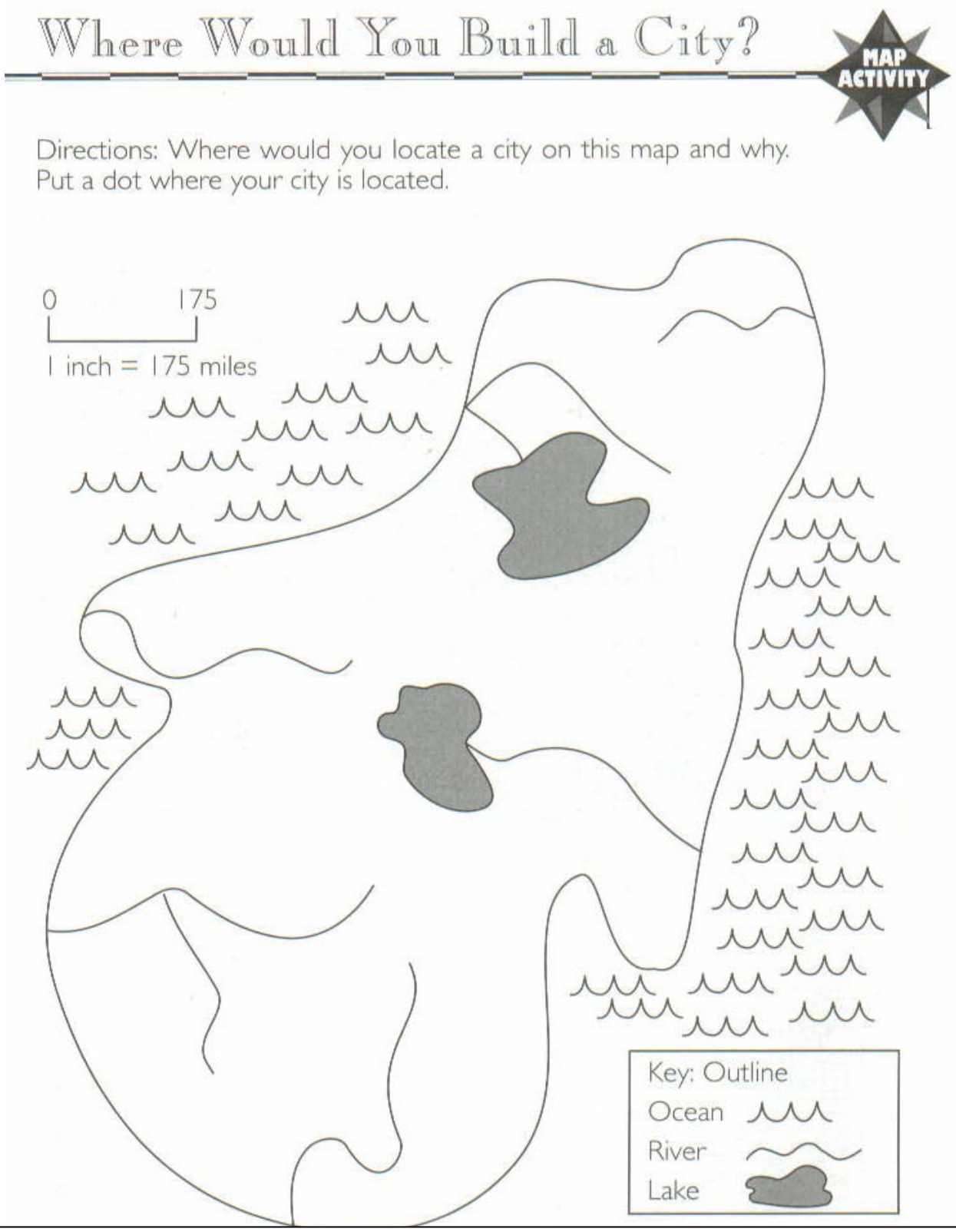
4th Grade

Student can construct and interpret map scale.	Yes	No
Student can construct and interpret map legends.	Yes	No
Student can construct and interpret map symbols.	Yes	No
Student can measure distances using map scales and map keys.	Yes	No
Student can locate points on a grid.	Yes	No
Student knows characteristics of latitude and longitude.	Yes	No
Student can identify lines of latitude and longitude.	Yes	No
Student can locate points using latitude and longitude.	Yes	No
Student can identify characteristics of a location on a relief map.	Yes	No
Student can construct his or her own relief map.	Yes	No

SPATIAL CONNECTIONS
Appendix B: Building Spatial Vocabulary, Grades 1-4



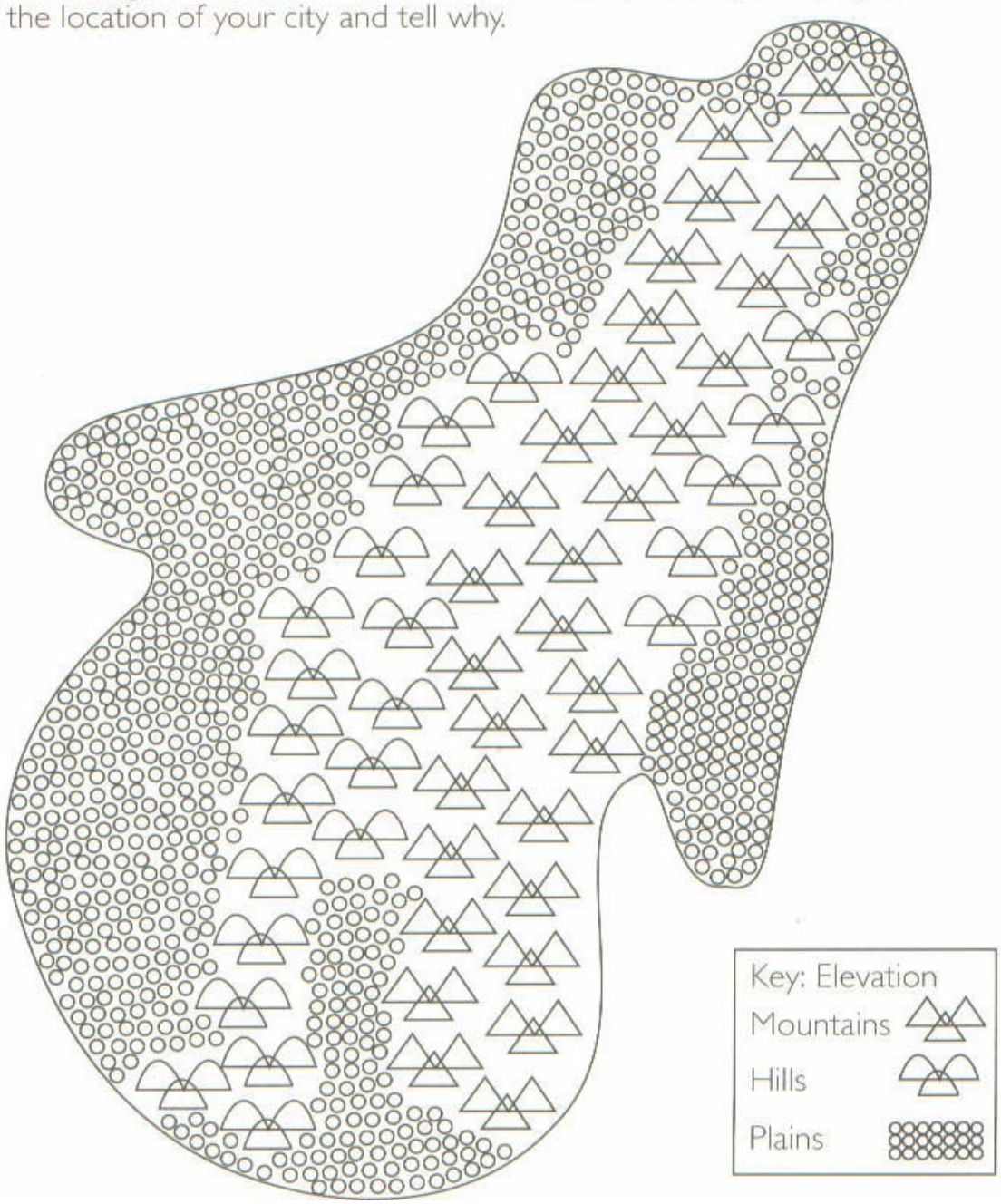
SPATIAL CONNECTIONS
Appendix C: "Where Would You Build a City?" Outline Map



SPATIAL CONNECTIONS
Appendix D: "Where Would You Build a City?" Elevation Map

Where Would You Build a City?

Directions: With the information on this map, would you change the location of your city? Put a dot on the same place if you did not change the location. Put an X in the new place if you changed the location of your city and tell why.

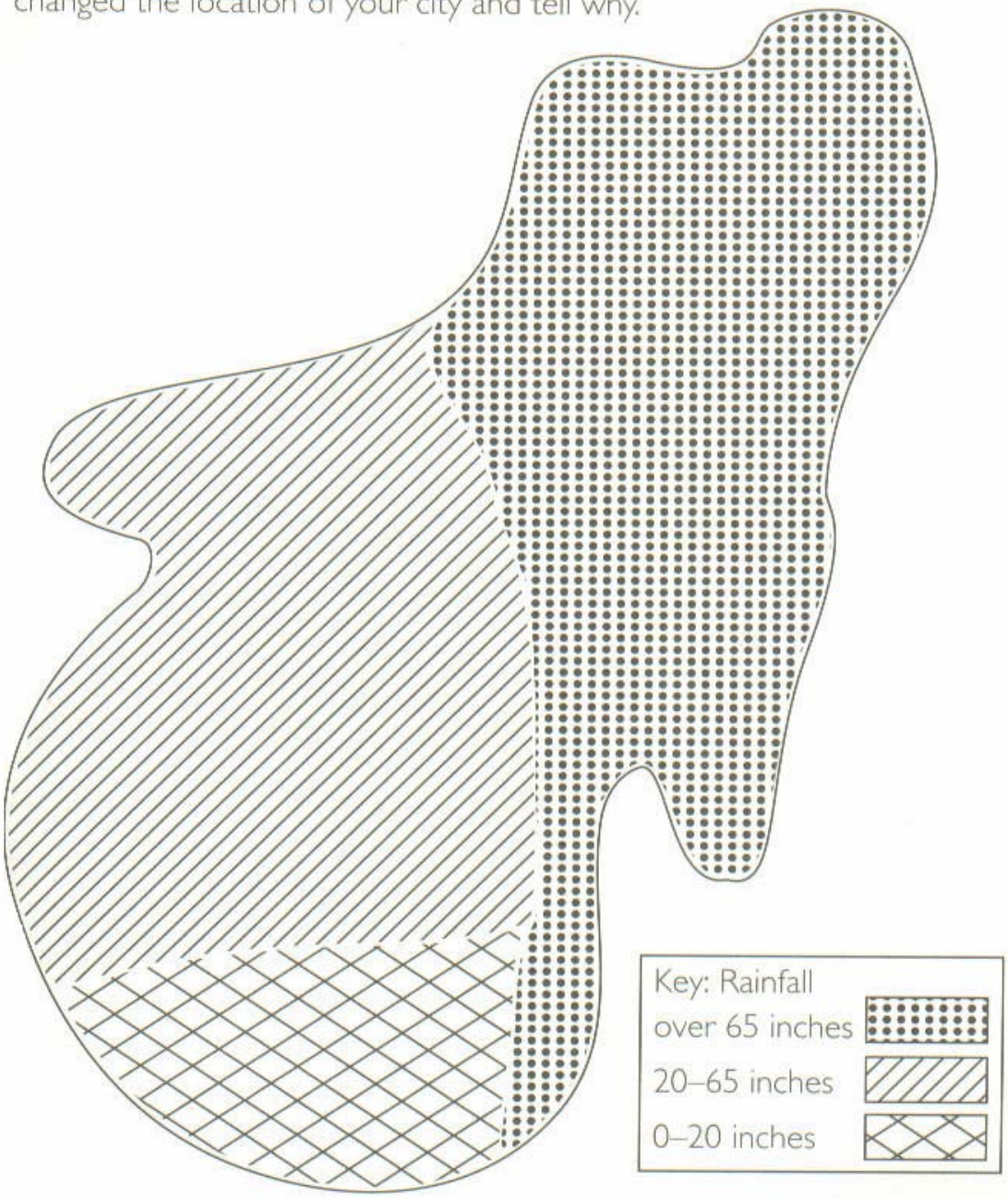


SPATIAL CONNECTIONS
Appendix E: "Where Would You Build a City?" Rainfall Map

Where Would You Build a City?

MAP ACTIVITY

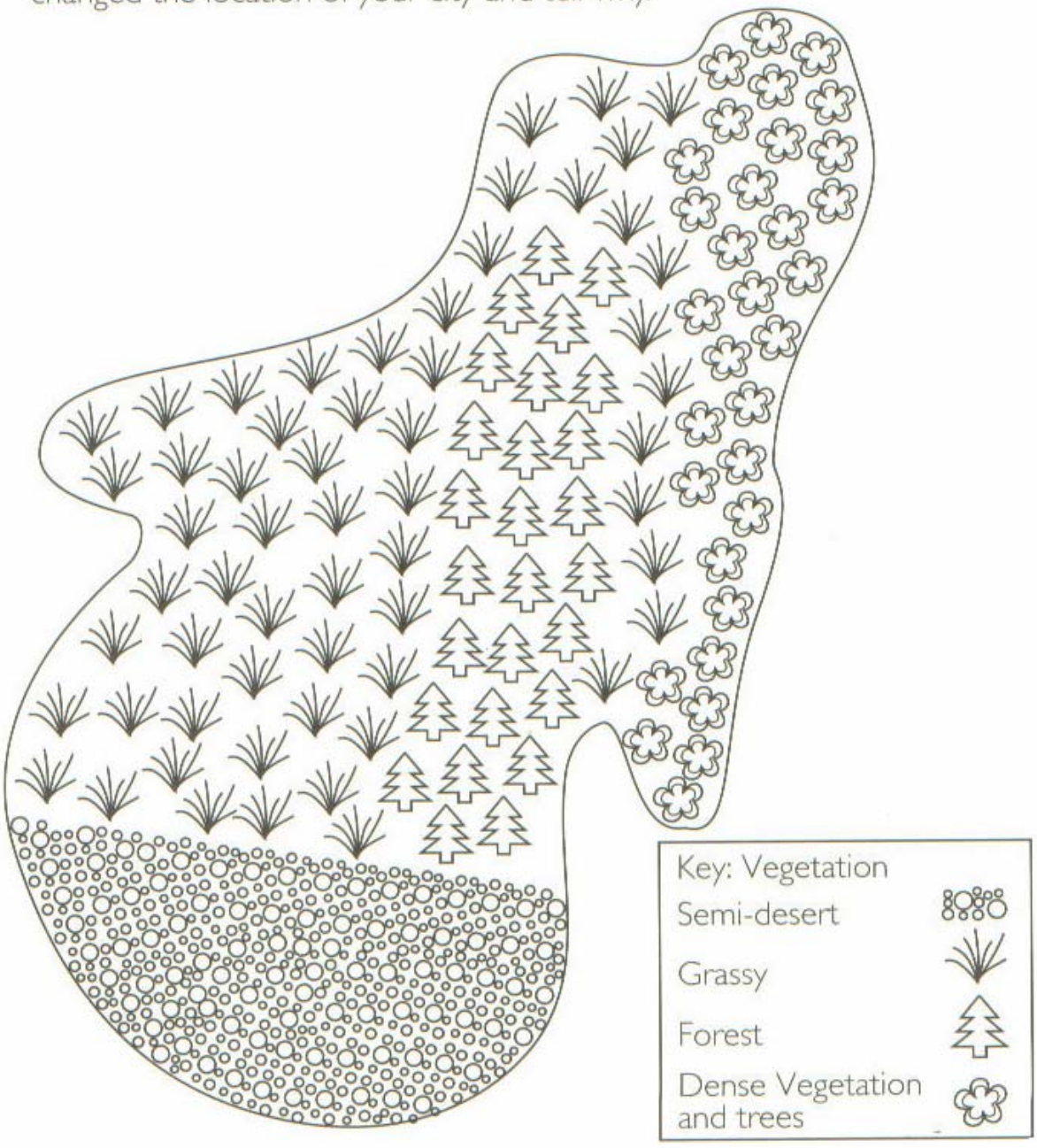
Directions: With the information on this map, would you change the location of your city? Put a dot on the same place if you did not change the location. Put a square in the new place if your changed the location of your city and tell why.



SPATIAL CONNECTIONS
Appendix F: "Where Would You Build a City?" Vegetation Map

Where Would You Build a City?

Directions: With the information on this map, would you change the location of your city? Put a dot on the same place if you did not change the location. Put a circle in the new place if you changed the location of your city and tell why.

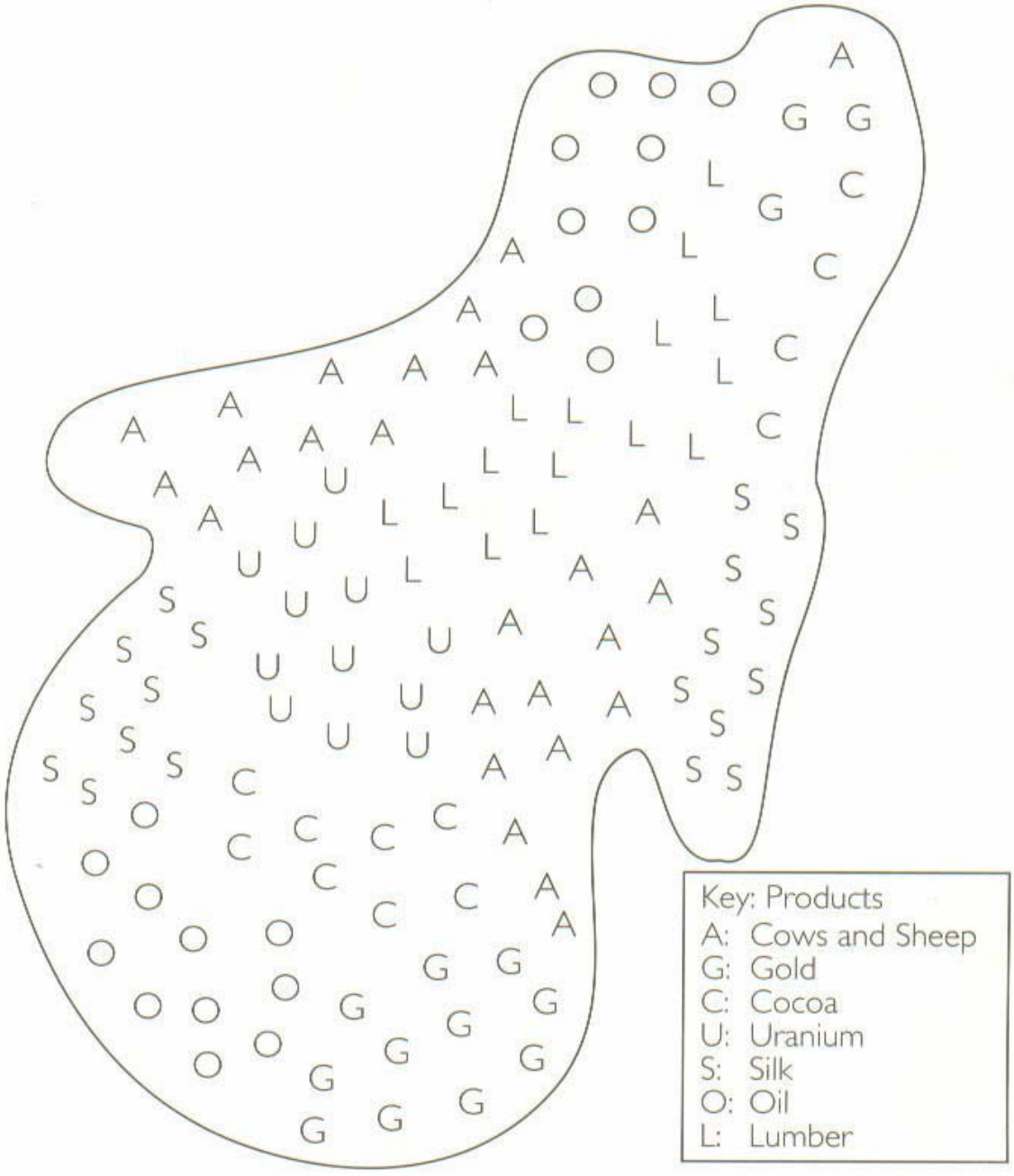


SPATIAL CONNECTIONS
Appendix G: "Where Would You Build a City?" Products Map

Where Would You Build a City?

MAP ACTIVITY

Directions: With the information on this map, choose the final location of your city and explain why you think it is a good location. Put a dot where your city will be and give it a name.

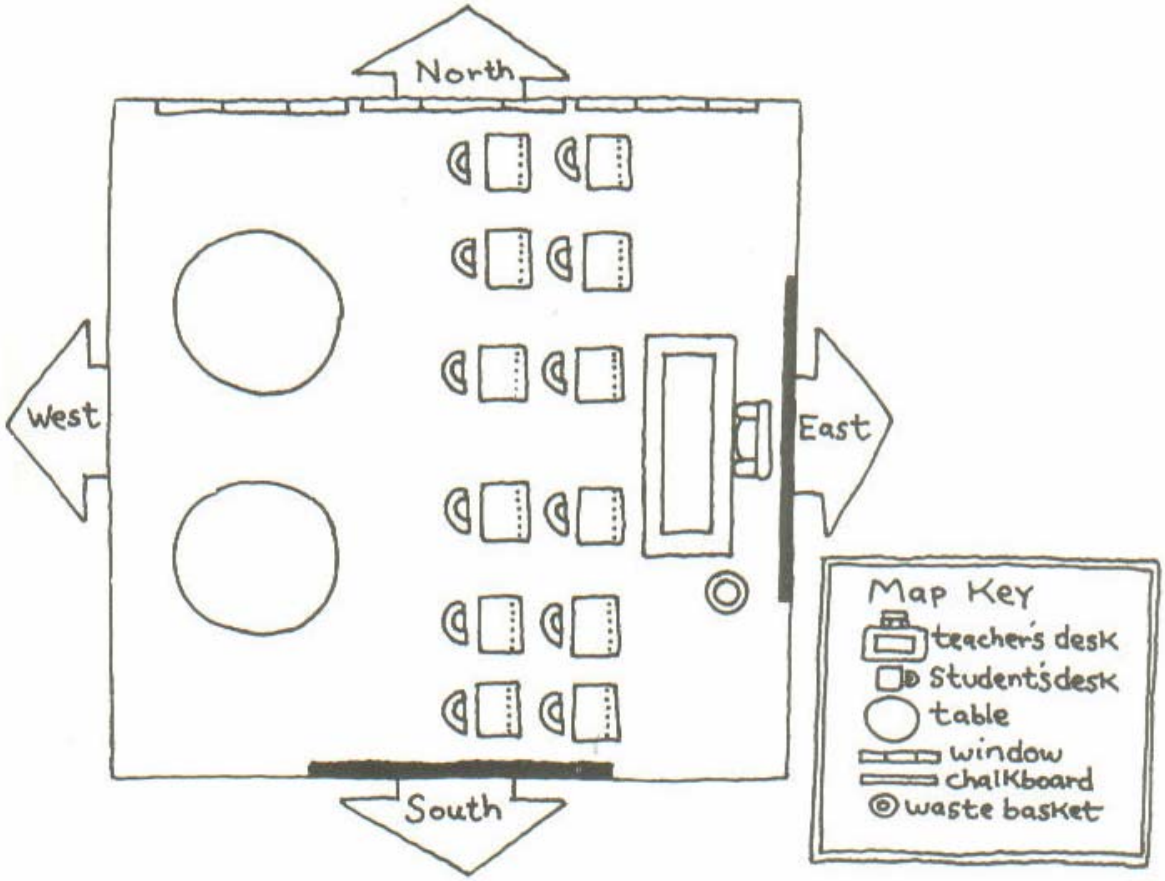


SPATIAL CONNECTIONS
Appendix H: North, South, East or West

North, South, East or West

MAP ACTIVITY

Directions: Look at the map. Answer the questions by writing the correct direction word in the blank.



1. The tables are on the _____ side of the room.

2. The chalkboards are on the _____ and _____ walls.

3. The windows are on the _____ side of the room.

4. The teacher's desk is on the _____ side of the room.

5. The wastebasket is on the _____ side of the room.

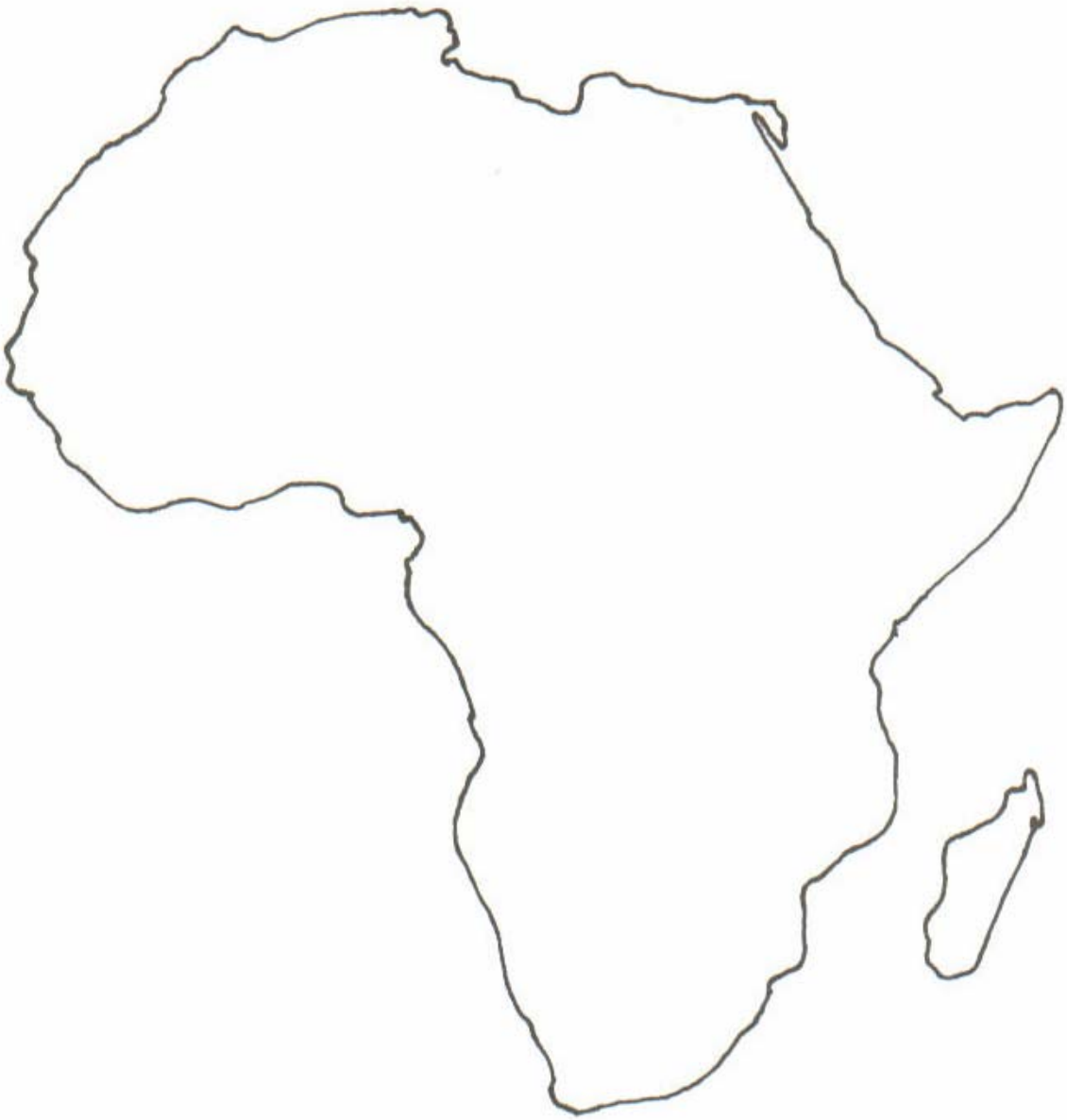
SPATIAL CONNECTIONS
Appendix I: World Map

North America

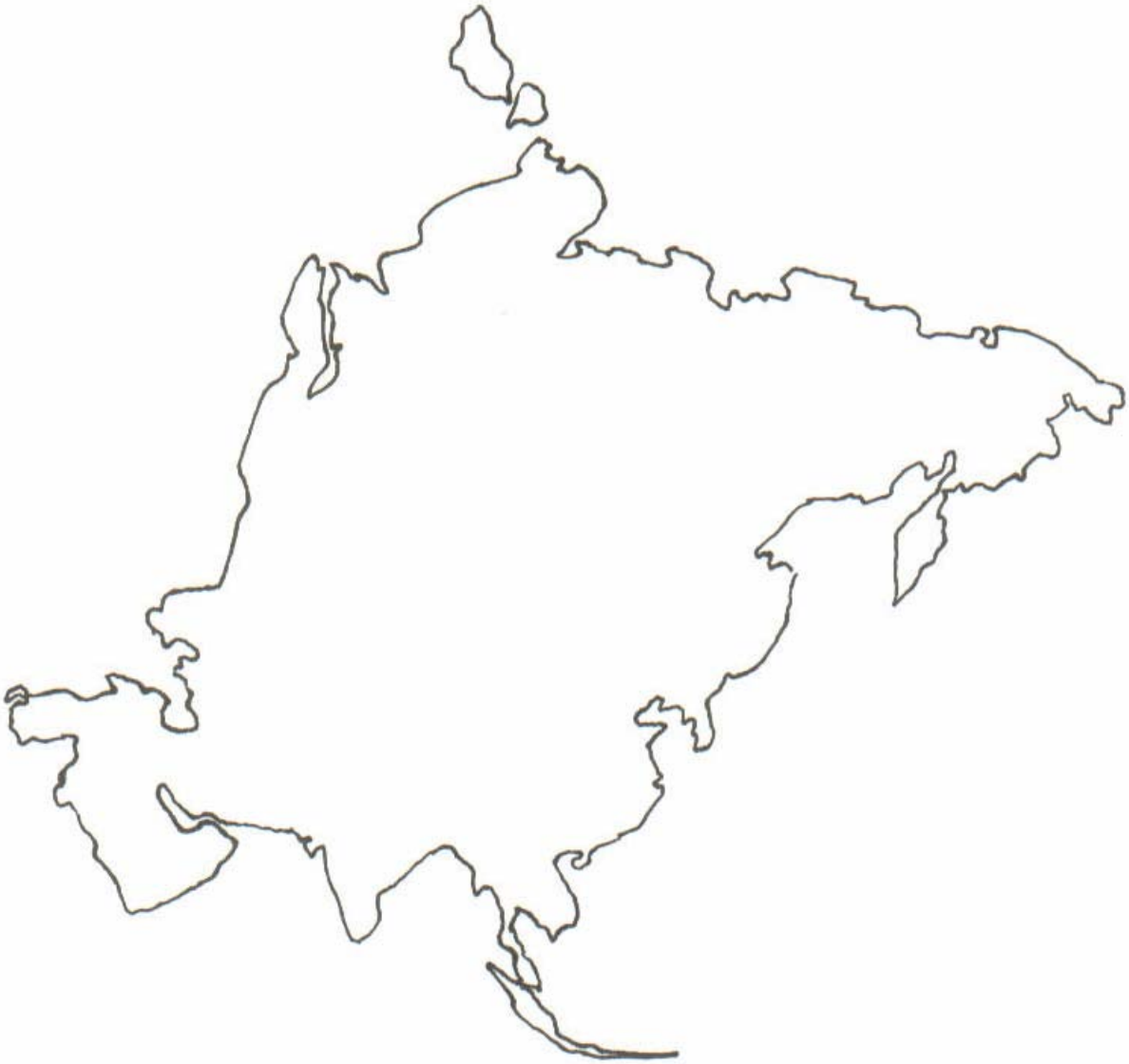
South America

Europe

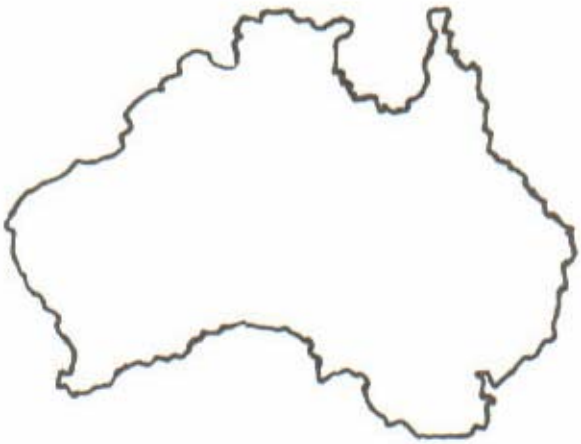
Africa



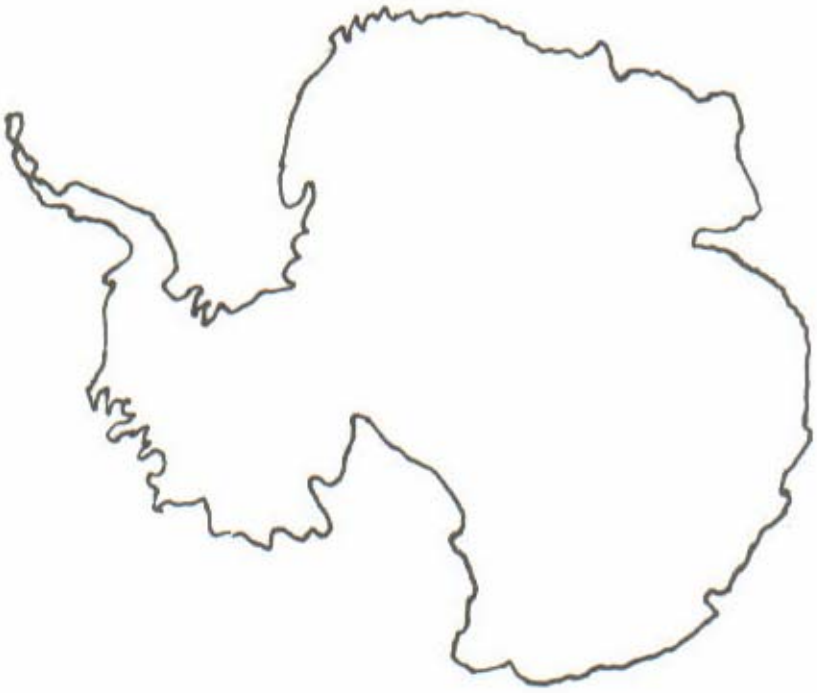
Asia



Australia



Antarctica



Where Am I?

My name is _____.

The name of the street I live on is _____.

The name of my neighborhood is _____.

The community I live in is _____.

I live in the city of _____.

I live in the state of _____.

I live on the continent of _____.

I, _____, am one of millions of
(name)
people in this world.

Continents

To the tune of: "It's a Small World"

It's a small world after all!
It's a small world after all!
It's a small world after all!
It's a small world after all!
It's a small, small world!

North and South America,
Europe, Asia, Africa
Australia, and Antarctica.
It's a small, small world!

Es un mundo chico, sí.
Es un mundo chico, sí.
Es un mundo chico, sí.
Es un mundo chico, sí.

Norte y Sur America,
Europa, Asia, Africa,
Australia, y Antarctica.
Es un mundo chico, sí.

The Oceans

To the tune of: "My Bonny Lies Over The Ocean"

The earth is all covered with ocean,
The earth is all covered with sea,
The earth is all covered with ocean,
More water than land, don't you see?

(Chorus) Water, water, there's water all over the world, the world,
Water, water, there's water all over the world.

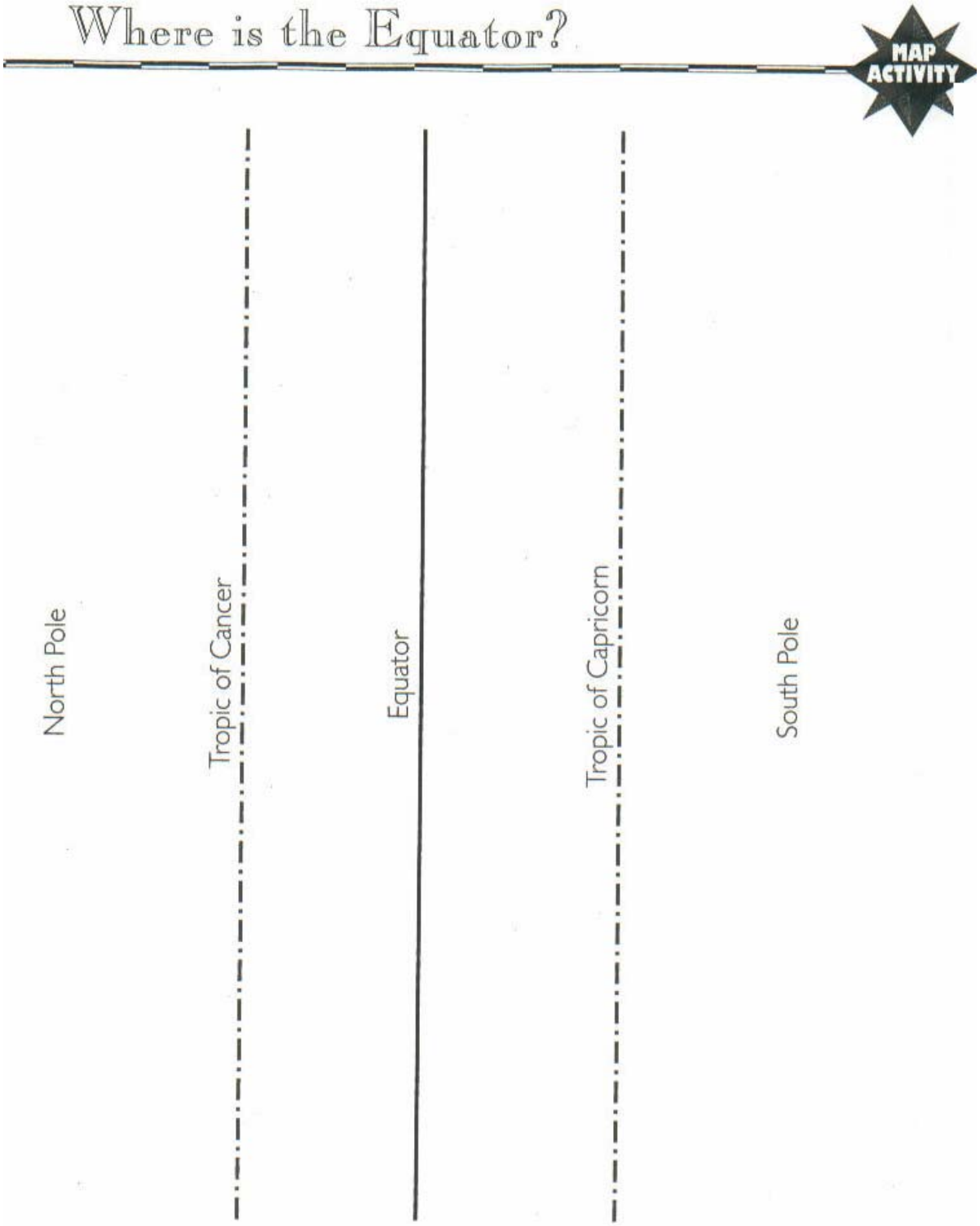
So salty and cold is the ocean,
So salty and cold is the sea,
So salty and cold is the ocean,
Too cold and too salty for me.

(Chorus)

Atlantic, Pacific, the Arctic,
And then there's the Indian, too.
These oceans all cover our planet.
I named all of them, now can you?

(Chorus)

SPATIAL CONNECTIONS
Appendix T: Where is the Equator?

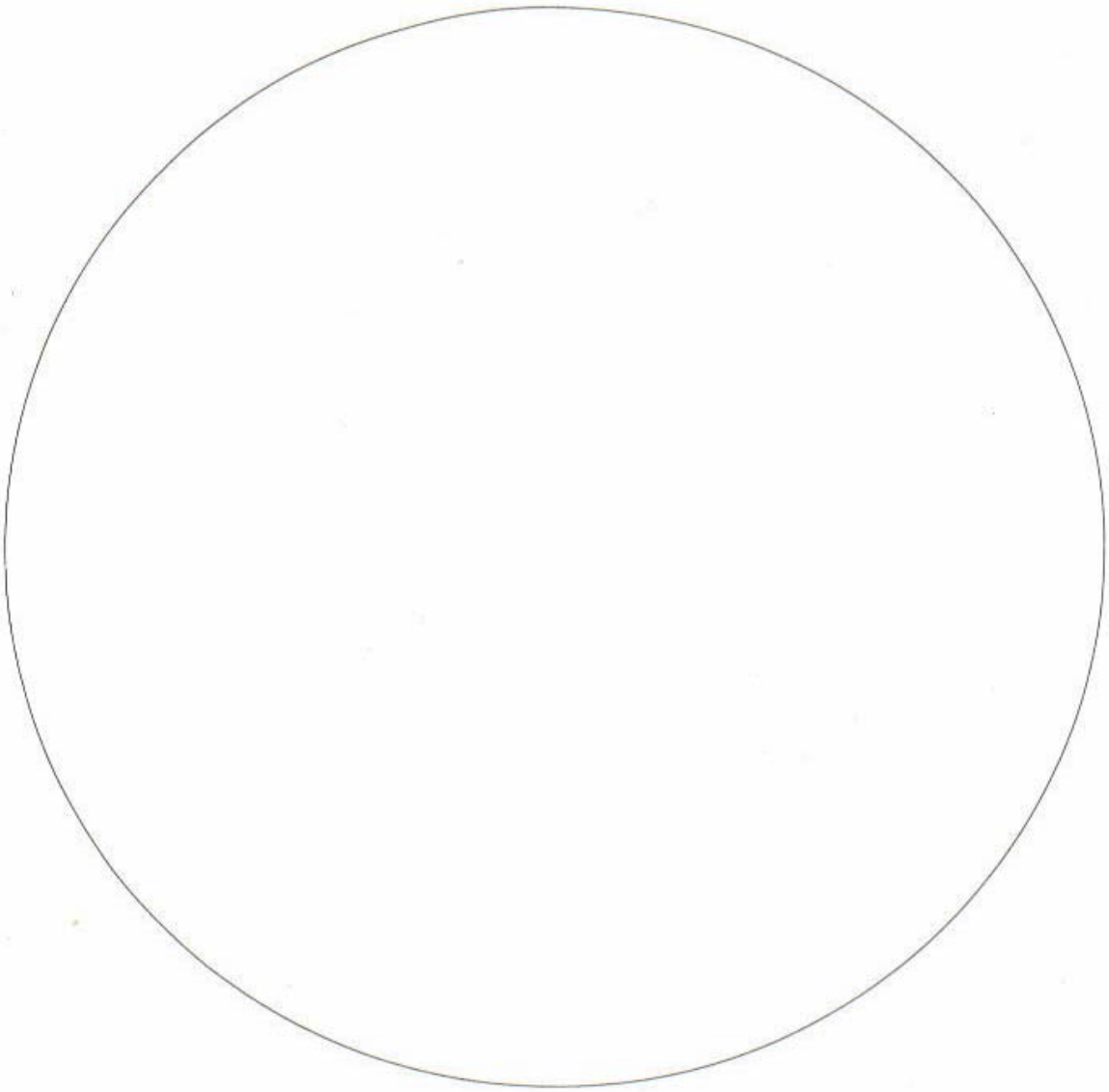


SPATIAL CONNECTIONS
Appendix U: What are the Hemispheres?

What are Hemispheres?

MAP ACTIVITY

Directions: Cut out the circle below and place your construction paper half-circles on it to make a world design with hemispheres.

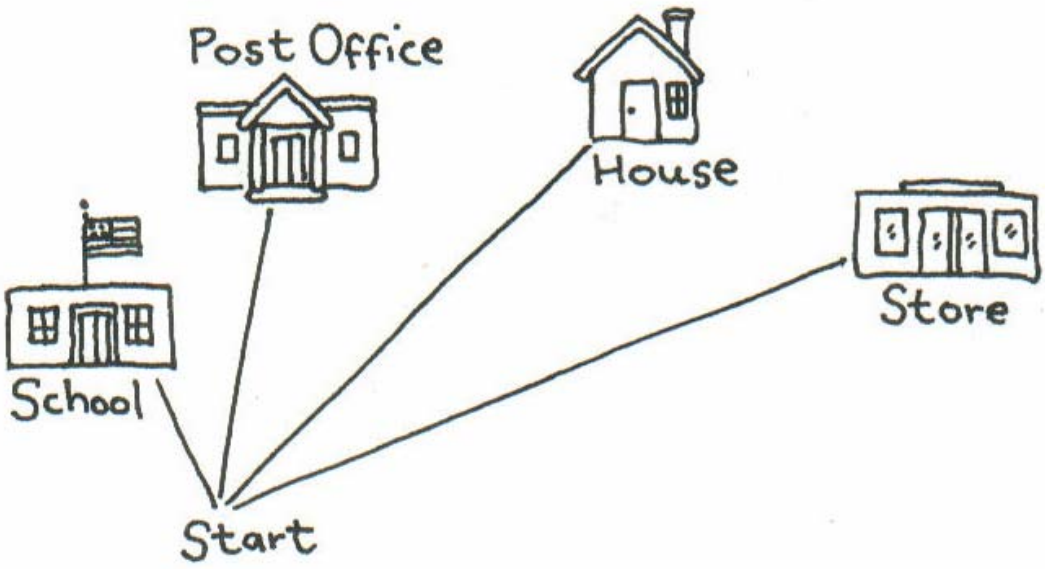


SPATIAL CONNECTIONS
Appendix V: Map Key of Continents and Oceans

How do You Measure Scale?

MAP ACTIVITY

Directions: Use a ruler to answer the questions below.



1. Put the ruler on START. Measure and count the number of inches from START and write in the space below:

From START to the POST OFFICE: _____ inches.

From START to the STORE: _____ inches.

From START to the HOUSE: _____ inches.

From START to the SCHOOL: _____ inches.

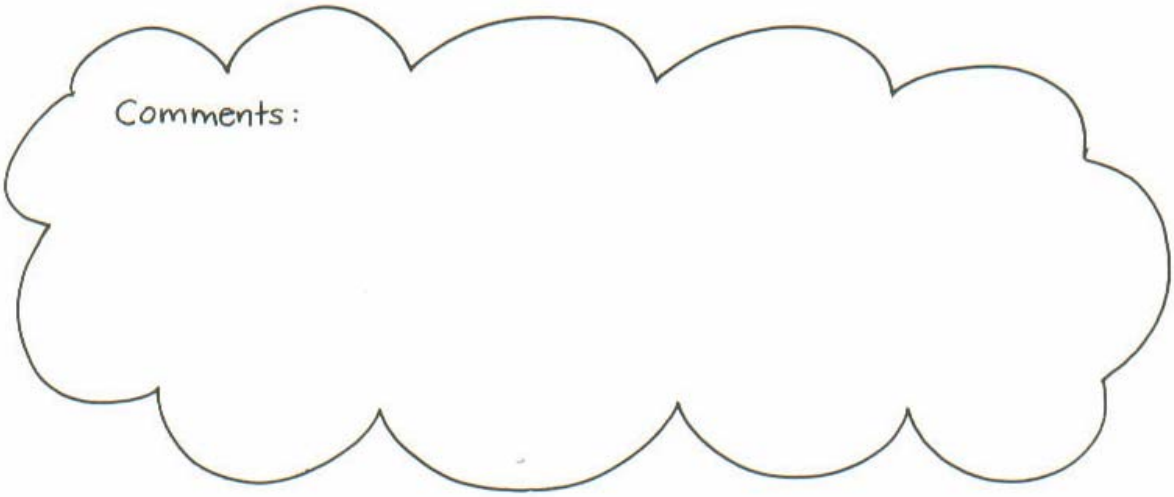
2. If an inch is equal to a yard, how many yards is it from START to the HOUSE? _____ yards.

If an inch is equal to a mile, how many miles is it from START to the HOUSE? _____ miles.

Teacher Checklist for Map From Schoolhouse to Home

Student's Name: _____

Checklist Items	Yes	No
Map has a title.		
Map has a map scale.		
Map has a map key.		
Student labeled the schoolhouse and home.		
Map has other important landmarks (ie: lake, church, river).		
Distance from the schoolhouse to home matches the map scale.		
Student correctly constructed the map scale.		
Student had trouble measuring the distance on the map.		
Student had trouble converting the scale into actual measurements.		

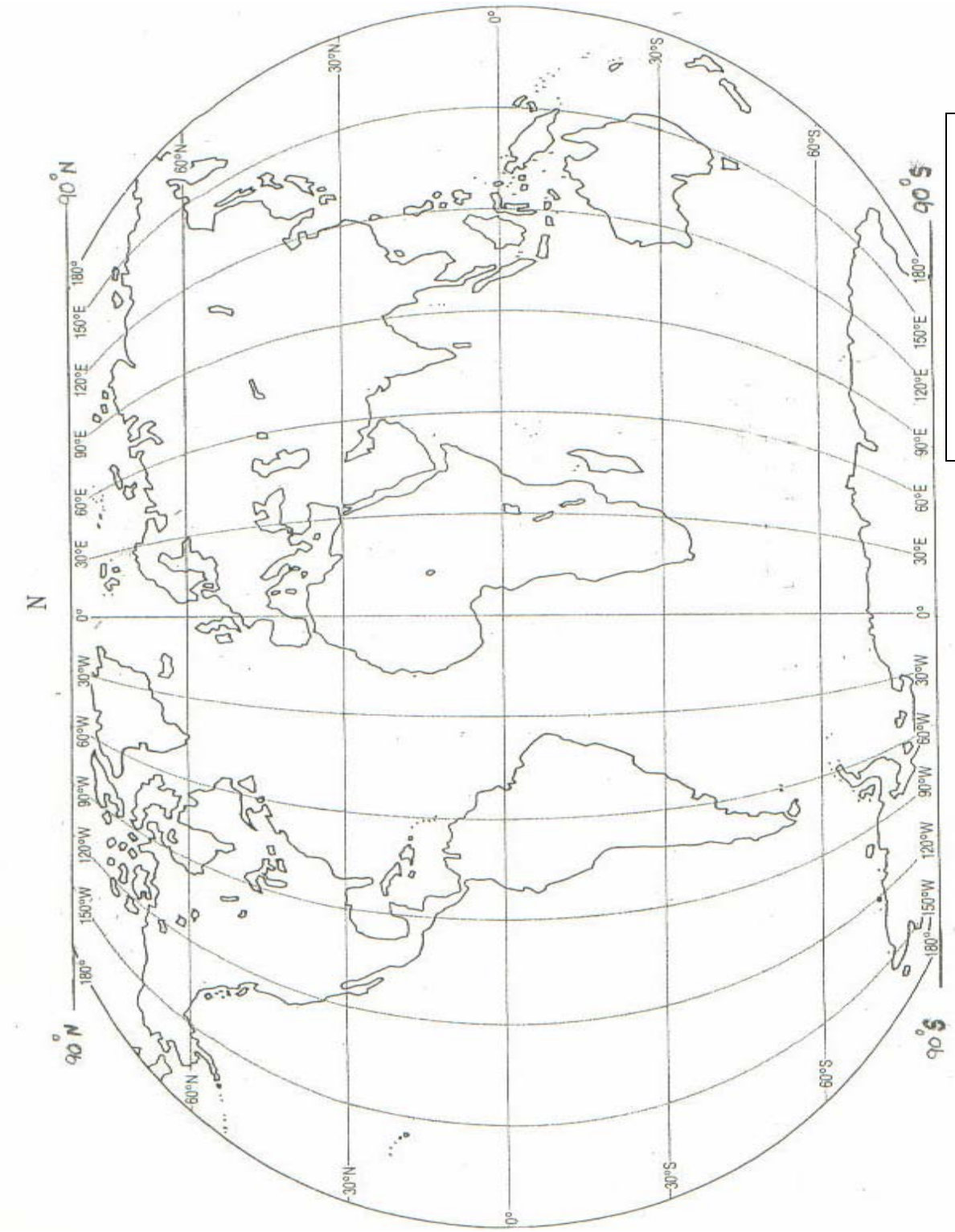


Student Checklist for Map From Schoolhouse to Home

Name: _____

Checklist Items	Yes	No
My map has a title.		
My map has a map scale.		
My map has a map key.		
I labeled the schoolhouse and home.		
My map has other important landmarks (ie: lake, church, river).		
I have checked that the distance from the schoolhouse to my home matches the map scale.		

SPATIAL CONNECTIONS
Appendix Z: Map of the World



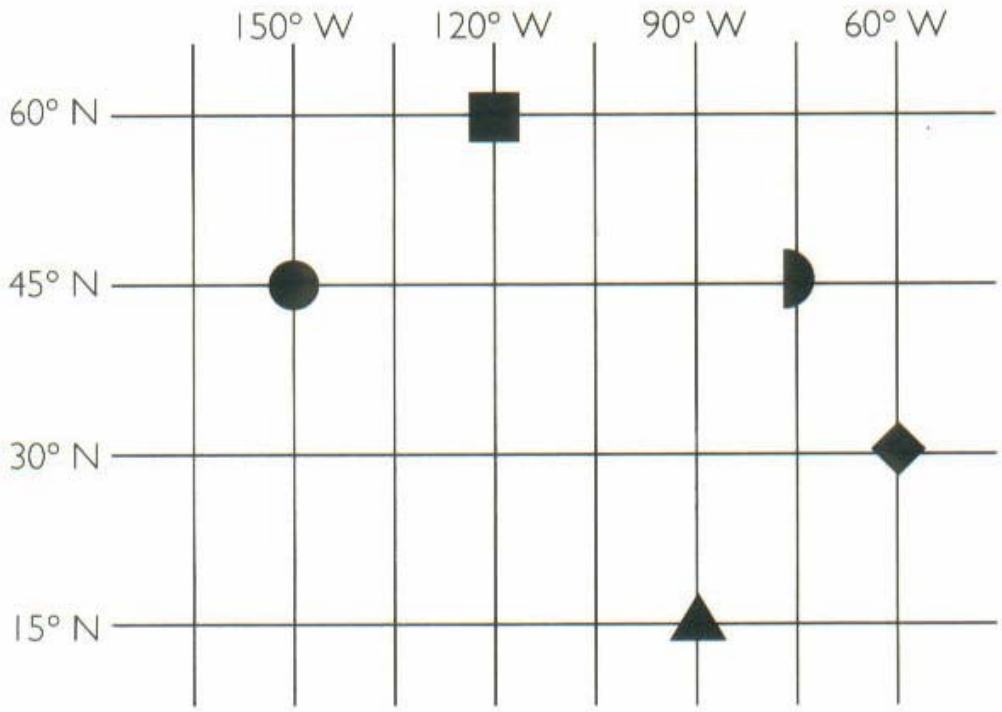
Latitude measures North and South.

Longitude measures West and East.

What are Latitude and Longitude?

MAP ACTIVITY

Directions: Look carefully at the map and answer the questions.
What symbol is located at:



1. 45° N Latitude, 150° W Longitude?_____

2. 60° N Latitude, 120° W Longitude?_____

3. 15° N Latitude, 90° W Longitude?_____

4. 30° N Latitude, 60° W Longitude?_____

5. 45° N Latitude, 75° W Longitude?_____

Name:_____ Date: _____

In My City

*Create a map of your own city in the space below. Include at least **three** main locations for you and your friend to find on the grid (ie: towns, streets, park, church, courthouse, store, mall, etc.). Your map should also include a map key. Be sure to draw and label the lines of latitude and longitude.

Checklist for Gridding Activity

Name of Student: _____

Checklist Items	Yes	No
Student has drawn lines of latitude.		
Student has drawn lines of longitude.		
Map includes a title.		
Map includes a map key.		
Student can identify an item on the map.		
Student can locate an item on the map using the lines of latitude and longitude.		

Comments/ Other Observations:

Concentration Game

Name of Country	Coordinates	Name of Country	Coordinates

SPATIAL CONNECTIONS
Appendix EE: My Travel Brochure Scoring Checklist

Name: _____ Date: _____

My Travel Brochure Scoring Checklist

Checklist Items	Possible Points	Yes, I have completed this task.
I have put my name on the brochure.	5	
I have found a vacation spot.	5	
I have found and included the coordinates of my vacation spot.	15	
I have described what the weather is like there in this time of the year.	15	
I have included the time difference of my vacation spot compared to the U.S.	10	
I have included a list of things that a person would need to pack for the trip.	10	
I have decorated and colored my brochure.	10	
I have created a title for my brochure.	10	
I have researched in the library and on the internet.	20	

Teacher's Scoring Guide for Travel Brochure

Name of student: _____

Project Requirements	Possible Points	Points earned
Student's name is on brochure.	5	
Student has chosen a vacation spot.	5	
Student has found and included the coordinates of the vacation spot.	15	
Student has provided a basic description on the current weather of the vacation spot.	15	
Student has included the correct time difference of the vacation spot compared to the U.S.	10	
Student has included a list of items one would need to pack for the trip	10	
Student has decorated and colored the brochure.	10	
Student has created a title for the brochure.	10	
Student has conducted research in the library and on the internet.	20	

Comments:

Total Points Earned: _____

SPATIAL CONNECTIONS
Appendix GG: K-W-L Chart for Relief Maps

Name: _____ Date: _____

Relief Maps

I already know that...

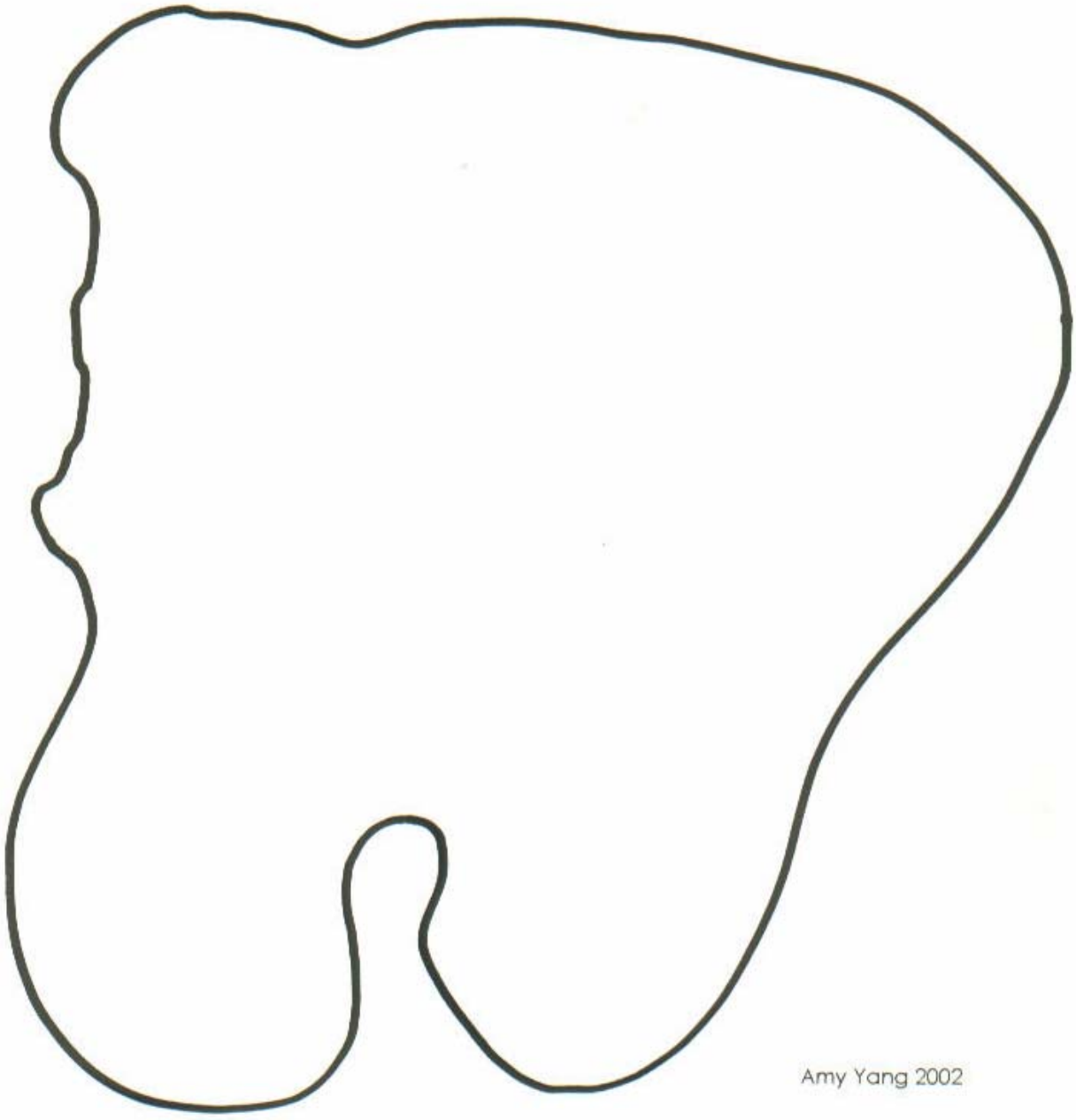
I want to know...

I have learned that...

SPATIAL CONNECTIONS
Appendix HH: Outline Map for "Camp_____"

Name: _____ Date: _____

Name of Camp: _____



SPATIAL CONNECTIONS
Appendix II: Assessment Rubric for Relief Map Project (2pp)

Name: _____

Assessment Rubric for Relief Map Project

	Core Knowledge Content and Skills	Appearance	Presentation
4	Student demonstrates knowledge and understanding by: 1) Including important landmarks on the map. 2) Correctly showing elevation With varying colors and drawings. 3) Correctly showing Depression with varying colors and drawings. 4) Correctly constructing a map key. 5) Correctly constructing a map scale. 6) Labeling the map correctly.	1) The map is neat. 2) Student has colored the map with colored pencils. 3) The map has a title.	1) Student maintains eye contact with the audience. 2) Student uses a clear and audible voice.
3	Student demonstrates most (but not all) knowledge by: 1) Including most of the important landmarks. 2) Correctly showing elevation with varying colors and drawings. 3) Correctly showing depression with varying colors and drawings. 4) Correctly constructing a map key. 5) Correctly constructing a map scale. 6) Labeling the map correctly.	1) The map is overall neat. 2) Student has colored the map with colored pencils. 3) The map has a title.	1) Student maintains eye contact most of the time. 2) Student uses clear and audible voice most of the time.

SPATIAL CONNECTIONS
Appendix II: Assessment Rubric for Relief Map Project (2pp)

2	Student is uncomfortable with the content. Student is uncomfortable with the skills. Student may display the statements above by: 1) Failing to include all important landmarks. 2) Failing to correctly show elevation using the appropriate colors and drawings. 3) Failing to correctly show depression using the appropriate colors and drawings. 4) Missing a map key, Map scale. 5) Failing to construct a map key and/ or a map scale correctly. 6) Failing to label map Correctly.	1) The map is unorganized. 2) Student did not use appropriate materials to construct the map. 3) The map has title.	1) Student occasionally uses eye contact. 2) Audience members have difficulty hearing the presentation
1	1) Student does not demonstrate knowledge and understanding. 2) Student is unable to construct the map. 3) Student is unable to correctly indicate elevation and depression. 4) Student is missing a map key and map scale.	1) The map is not neat. 2) The map is missing a lot of items. 3) The map is difficult to read.	1) Student does not have any basic materials. 2) Student uses no eye contact. 3) Audience is unable hear and follow through the presentation.

Comments: