



Beginning Orienteering Post-visit

Classroom Activities

Brief Synopsis

The post activities are designed to reinforce what the students learned at Eagle Bluff and practice the skill of map reading. Students will search for sunken treasure using the cardinal points, read an Alaskan map, and create their own map & legend using a literature reading as the context.

Ages: Designed for 5th–8th grade.

Time Considerations: 30 minutes per/activity. Activity #3; *Map Making*, requires additional class time.

Materials: Worksheets: “Sunken Treasure”, “Distance and Direction” key and “Alaskan Map Reading”. Pencils, literature book, ruler, large paper, colored pencils or crayons.

Outcomes:

1. Students will write directions using the eight cardinal points.
2. Students will read a map to identify six geographical features.
3. Students will create a visual representation of an area from a literary selection.

Vocabulary:

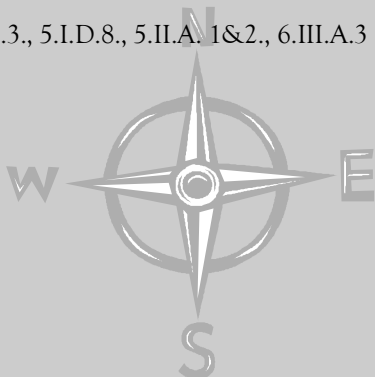
Cardinal points, Cartography, Legend, Scale

Minnesota Academic Standards:

Geography: V.B.1. 1 & 3., V.B.2. 1&2

Math: 7.C.1

Language Arts: 5.I.C.3., 5.I.D.8., 5.II.A. 1&2., 6.III.A.3



Revised March 2009

Activity 1: Sunken Treasure

Background: This activity is similar to the pre-visit activity; “*Mystery Drawing*”. Students will sink their treasure and write directions to its location. Classmates will then attempt to locate the sunken treasure.

Supplies: Two copies of the “*Sunken Treasure*” worksheet to each student. One “*Direction & Distance*” Key per student and pencil.

Procedures:

1. Distribute a “*Sunken Treasure*” worksheet to each student along with a “*Distance & Direction Key*”.
2. Students will select a location on their ocean grid that will indicate where their treasure has sunk. Mark that square with an “X”.
3. To begin, the student will start in the upper left hand corner and use a pencil to draw a route to his or her sunken treasure.
4. The route must follow the grid line except when a diagonal line is drawn. The route cannot double back or go through objects such as land, boat, or fish.
5. Once the route is determined, the student will jot down the **Distance and Direction** on the key using the abbreviations: N,S,E,W,NW,SW,NE,SE. Begin at Start and end at the treasure.
6. Students should double check their directions for accuracy.
7. Hand each student a second “*Sunken Treasure*” worksheet.
8. Students will exchange their “*Distance & Direction Key*” with another student to locate the sunken treasure of their classmates.

Extension

- Instead of using the attached worksheet, distribute a state map or city map to each student. Use directions and road names to plan a route to a specific location or city.

Discussion Questions:

- Name a situation in which a person might depend on a map.
- What information can you gather when looking at a map? (scale, map title, legend, landmarks, roads, contour lines, directions, etc...)
- How can distance be measured on a map?

Activity 2: Alaskan Map Reading

Background: Cartography is the art and science of map making. Humans have been drawing maps for thousands of years as part of an effort to understand their environment. A map can be very simple or very detailed depending on its purpose. Map reading is an essential skill learned in school and used throughout one’s lifetime.

Procedures:

1. Distribute an “*Alaskan Map Reading*” worksheet to each student.
2. Review with the class the information that can be drawn from reading a map.
3. Complete the worksheet and check with the answer key.



Extensions:

- Create a list or collect as many different types of maps as possible. Review what makes them similar and different.
- Be a cartographer and draw a map of your classroom. Don't forget to include the legend.
- Select a map all students have access to. Each student will write ten geographical questions that can be answered by reading the map. Exchange questions.

Activity 2: Literature Map Making

Background: Literature books are often filled with narratives describing a place or location. In this activity students will read a selected book and draw a two dimensional map representing both manmade and natural objects.

Supplies: Literature book, large paper, pencils, ruler, colored pencils or crayons

Procedure:

1. Students may either work individually or in teams.
2. Choose one of the book selections below or select a book for the students to read. The book selected should include literature narrative that describes a place.
3. Allow students to read at least half of the book before beginning the mapping process.
4. As a class, brainstorm the different locations of objects described in the book. Write the items on a chalk board and create a symbol for each.
5. Distribute a large piece of paper to each team. Use a pencil to begin drawing a map, placing the pre-determined items and their symbol in the appropriate location.
6. Finish reading the book and add additional symbols if needed.
7. Alter the map to include the new symbols.
8. Use colored pencils or crayons to add color to the final map.
9. Add a legend or key to the map.
10. Display the maps.

Discussion Questions:

- What was the most difficult aspect of making the map?
- What would a cartographer need to consider when making a map?
- List additional books that can be illustrated with a map.

Book Options.

Family Under the Bridge. Carlson, Natalie.

Ronia, the Robbers Daughter. Lindgren, Astrid.

Hatchet. Paulson, Gary.

Island of the Blue Dolphins. O'Dell, Scott.

My Side of the Mountain. George, Jean.

Teacher Tips

- For Activity #1, Sunken Treasure, students are limited to 40 directional changes as there are only 40 spaces on the "Distance and Direction" key.
- If students are having difficulty understanding cardinal directions try the interactive story, "The Wedding", posted on the website Dragon.sleepdeprived.com listed below.
- For additional pre and post activities, visit Eagle Bluff's web page and search under Competitive Orienteering pre and post activities. The following topics covered include:
 - Calculate your pace
 - Estimate distance on land and on a map
 - Read a topographic map
 - Create a map to scale.

Additional Resources:

<http://www.pbs.org/wnet/frontierhouse/> PBS Frontier House. Follow along as three modern families are placed in an 1880's harsh environment and must live as pioneers. Site includes teacher resources, lesson plans, pioneer essays and student interactive pages.

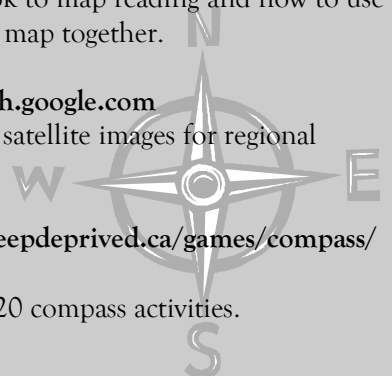
Mapmaking with Children. 1998. Sobel, David
A comprehensive book to help teachers teach map reading skills to students. Hands on activities for a variety of ages.

Be Expert with Map & Compass. 1955.
Kjellstrom, Bjorn.

Introductory book to map reading and how to use the compass and map together.

<http://www.earth.google.com>
Offers maps and satellite images for regional searches.

<http://dragon.sleepdeprived.ca/games/compass/compass.htm>
Website of over 20 compass activities.

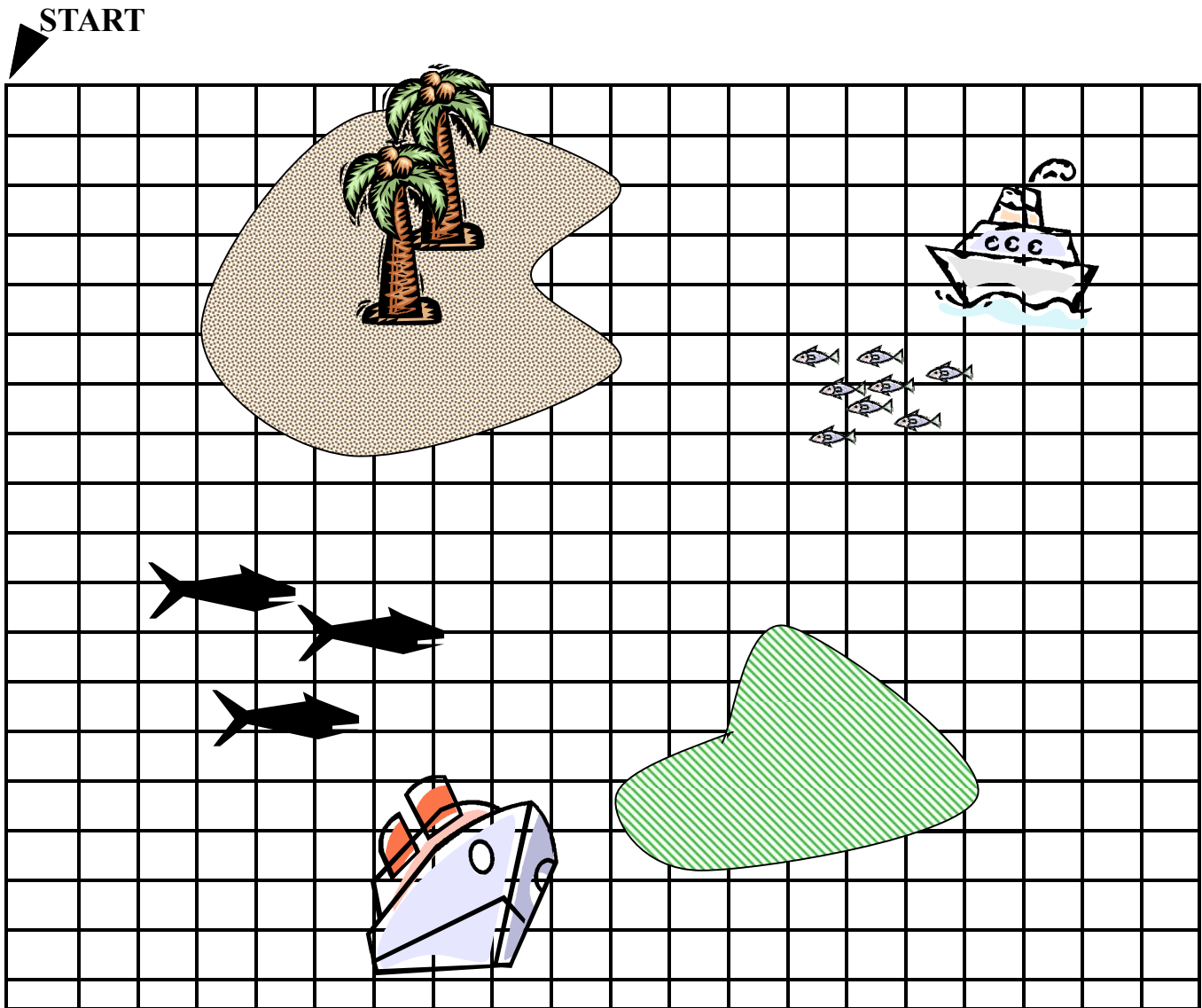


Sunken Treasure

NAME: _____ DATE: _____

Directions: You will need two copies for this activity. On the first copy pick a location within the grid to hide your treasure and mark that box with an "X". Begin at the START and draw a route to your treasure. The route cannot double back or go through objects such as land, boat, or fish. Once the route is completed write down the given distances and directions from START to your treasure. *Example: 2E, 4S, 1NW, etc...* Use the abbreviations: N=North, S=South, E=East, W=West, NE=Northeast, NW=Northwest, SE=Southeast, SW=Southwest. **Double check your work!**

Exchange your "Distances & Directions Key" with another student. Use a second copy of the "Sunken Treasure" worksheet to locate your classmates treasure using the distance and directions given.



Distance & Direction Key Name: _____

1 _____ 11 _____ 21 _____ 31 _____

2 _____ 12 _____ 22 _____ 32 _____

3 _____ 13 _____ 23 _____ 33 _____

4 _____ 14 _____ 24 _____ 34 _____

5 _____ 15 _____ 25 _____ 35 _____

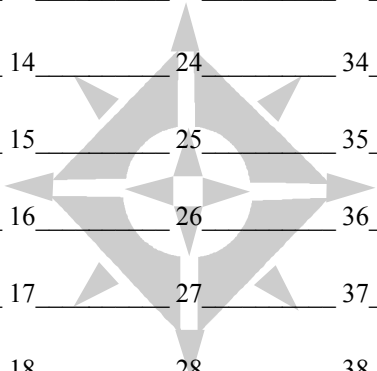
6 _____ 16 _____ 26 _____ 36 _____

7 _____ 17 _____ 27 _____ 37 _____

8 _____ 18 _____ 28 _____ 38 _____

9 _____ 19 _____ 29 _____ 39 _____

10 _____ 20 _____ 30 _____ 40 _____



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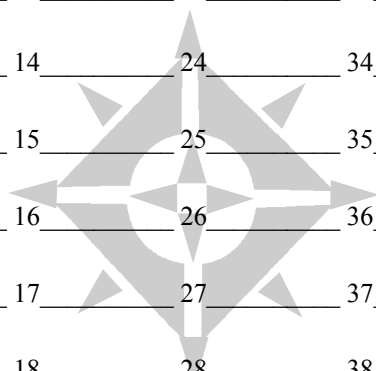
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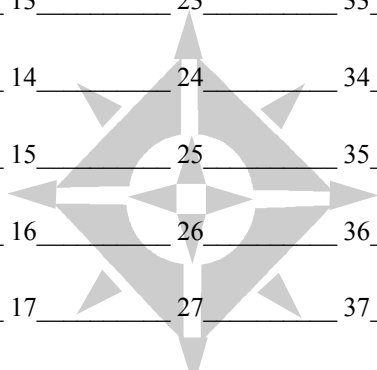
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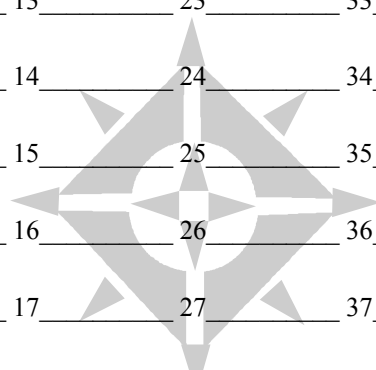
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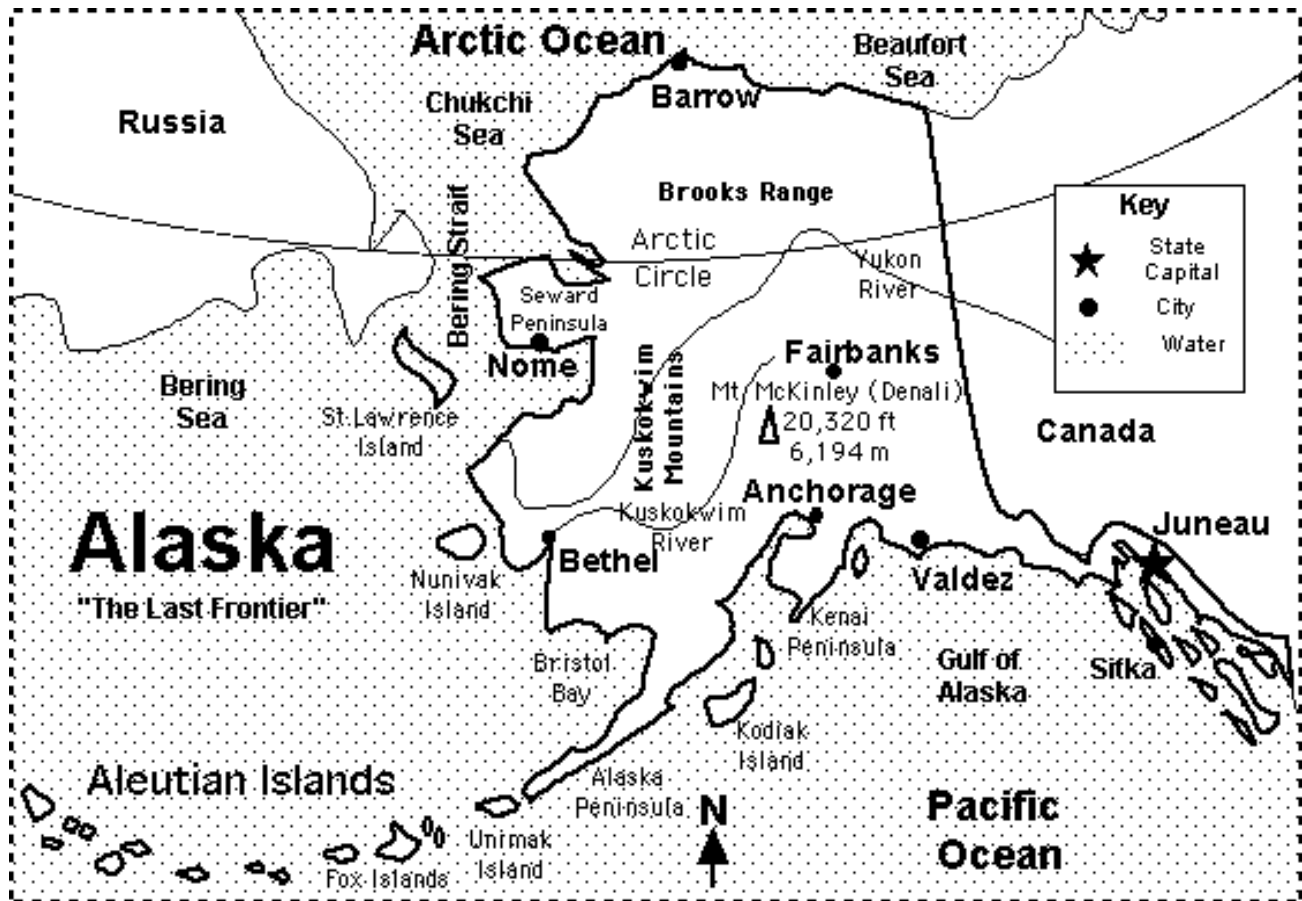
10 _____ 20 _____ 30 _____ 40 _____



Alaskan Map Reading

NAME: _____

DATE: _____



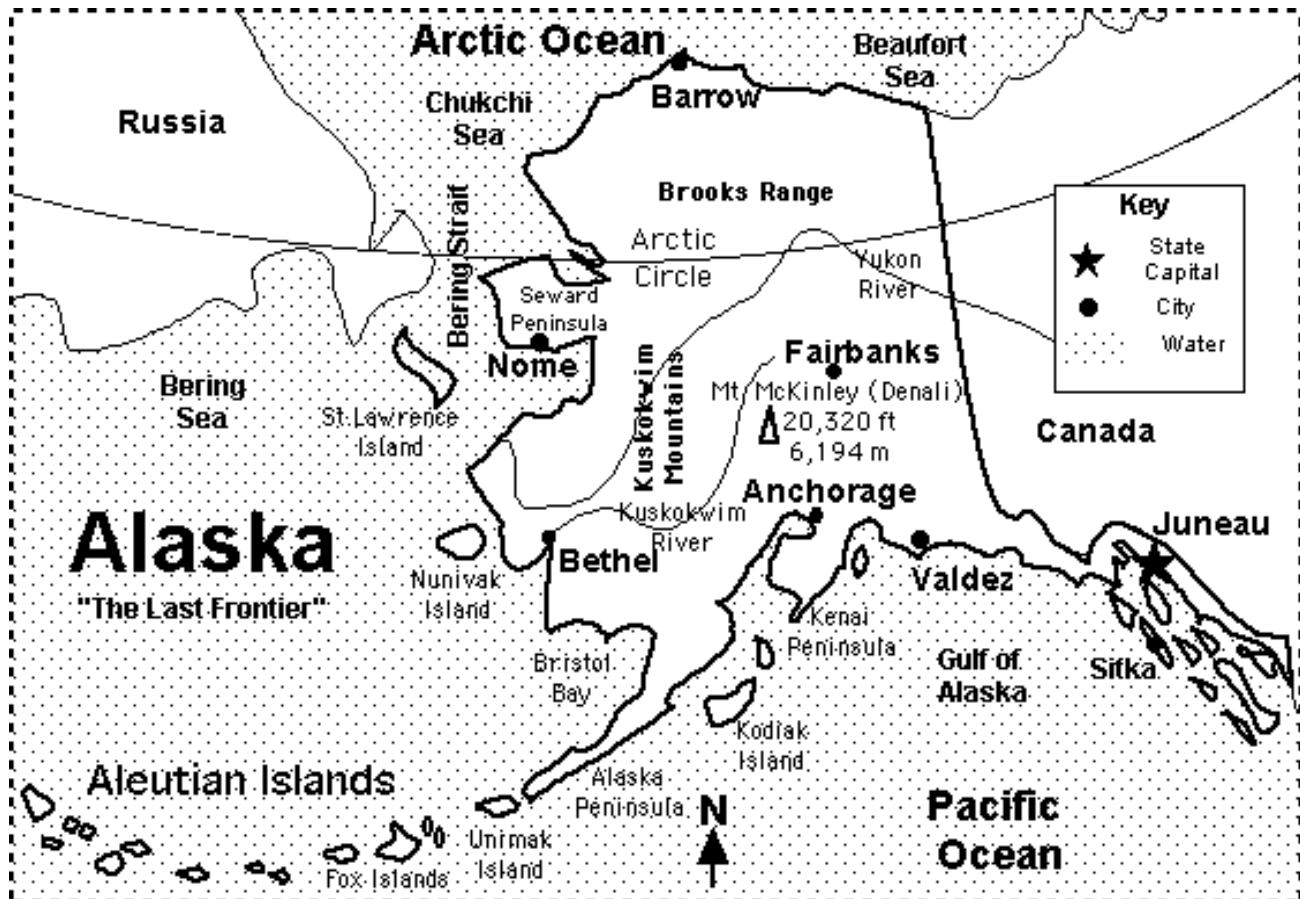
1. What is the capital city of Alaska? _____
2. What country borders Alaska on the east? _____
3. What ocean borders Alaska on the north? _____
4. What ocean borders Alaska on the south? _____
5. What country is just west of Alaska, across the Bering Strait? _____
6. What is the name of the tallest mountain in Alaska (it is also the tallest peak in North America)?

7. What is the name of the river that flows from Canada, across Alaska, and into the Bering Sea?

8. Which Alaskan city is farthest north? _____
9. The Iditarod dog sled race runs from Anchorage to a city on the southern coast of the Seward Peninsula. What is this city? _____
10. What is the name of the mountain range that runs across northern Alaska? _____

Alaskan Map Reading

Answer Key



1. What is the capital city of Alaska? Juneau
2. What country borders Alaska on the east? Canada
3. What ocean borders Alaska on the north? Arctic Ocean
4. What ocean borders Alaska on the south? Pacific Ocean
5. What country is just west of Alaska, across the Bering Strait? Russia
6. What is the name of the tallest mountain in Alaska (it is also the tallest peak in North America)? Mt. McKinley
7. What is the name of the river that flows from Canada, across Alaska, and into the Bering Sea? Yukon River
8. Which Alaskan city is farthest north? Barrow
9. The Iditarod dog sled race runs from Anchorage to a city on the southern coast of the Seward Peninsula. What is this city? Nome
10. What is the name of the mountain range that runs across northern Alaska? Brooks Range