

I Am a Pirate Cartographer. How about You?

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Grade Level	2
Duration	2 class periods

National Standards

GEOGRAPHY

Element 1: The World in Spatial Terms

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information
2. How to use mental maps to organize information about people places, and environments in a spatial context
3. How to analyze the spatial organization of people places, and environments on Earth's surface

AZ Standards

ELA

Writing Production and Distribution of Writing

- 2.W.3 Write narratives in which they recount a well-elaborated event or short sequence of events; include details to describe actions, thoughts, and feelings; use temporal words to signal event order and provide a sense of closure.

Language Conventions

- 2.L.2 Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.

Arizona Social Science Standards

GEOGRAPHY

The use of geographic representations and tools help individuals understand their world.

- 2.G1.1 Use and construct maps, graphs, and other geographic representations of familiar and unfamiliar places in the world; and locate physical and human features.
- 2.G1.2 Use maps, globes, and other simple geographic models to identify and explain cultural and environmental characteristics of places in the world based on stories shared.

Overview

Having the ability to use maps and other geographic models to find ones way around our world is an essential part of planning family vacations, taking successful business trips, understanding current events, and possessing knowledge of other cultures and regions. Fostering this ability depends on practice in how maps and geographic models are made.

Purpose

In this lesson, students will apply the essential parts of a map (key, scale, grid, and legend) to create a map to guide other students to a location.

Key Vocabulary

cartographer: a person who makes maps

scale: a line on a map that shows how far things are from each other

legend/ key: a list that explains the symbols on the map

features: objects shown on a map (hills, roads, etc.)

compass rose: a symbol that shows north, south, west, and east

Jolly Roger: pirate flag with skull and crossbones

sea shanties- song sung by pirates onboard the ship

Materials

- 8 Compasses
- [There's a Map on My Lap!](#) By Tish Rabe
- [How I Became a Pirate](#) by Melinda Long
- Vocabulary Cards and Test
- Writing Directions for Amusement Park Map worksheet
- Scoring Guide for Map Work
- Scoring Guide for Written Directions
- Centimeter cubes
- Amusement park map (electronic or paper)
- Grid paper
- Teacher Sample of Completed Map

Objectives

I Am a Pirate Cartographer. How about You?

The student will be able to:

1. Construct maps, graphs, and other geographic representations.
2. Read maps, graphs and other geographic representations.
3. Write coherent directions to help others locate a place or feature located on the map.

Procedures

Prerequisite Skills: Students should know the directions on a compass rose and the elements of map reading taught by TOADS/DOGTAILS.
<https://geoalliance.asu.edu/toads> (younger students)
<https://geoalliance.asu.edu/dogstails> (grades 6- HS)

SESSION ONE:

Prior to this session, print up a set of Vocabulary Cards for every 4 students. Then cut the word, definition, and image apart on the Vocabulary Cards and place a set in a baggie.

1. Introduce the lesson by telling the students, "I am a pirate cartographer, How about you? If they look at you funny, continue with, "I am a pirate cartographer. And soon you will be one also. But before we can be cartographers, we need to know some words that cartographers use."
2. Divide the students into groups of four and distribute a set of vocabulary cards to each group. Have the students sort the words, based on prior knowledge of the words. Explain that they need to match the a picture with a vocabulary word and a definition. Model how to do compass rose with them as an example.
3. When the groups think that they are finished matching the word, image, and definition; the class can work together to correct any misconceptions. Post the vocabulary words on the classroom word wall.
4. Continue the lesson with "Imagine you are a pirate. As a pirate cartographer, what elements would I need to include on my treasure map so I can find my loot (my treasure) after I hide it?"
5. Generate/brainstorm a list of items that should be included on maps. Record their ideas on the whiteboard. Eventually the list should include: author, title, scale, compass rose, and grid. If they do not brainstorm all of them at this time, then let them come from reading the book and add to the list as you read.
6. Read to the class: [There's a Map on My Lap!](#) by Tish Rabe (about 7 minutes).

SESSION TWO:

1. Review the vocabulary from the previous day's lesson.
2. Divide the students into groups of 4 and distribute an amusement park Map. Inform students that they are going to use this map to find the parts/elements of a map that are present and the parts that are not on the map. Write author, title, scale, compass rose, and grid on the board and hand out stickies with the words written on them. Have students label the parts to the map as they find them. You could use the TOADS labels for locating the parts of a map if you wish.
3. Ask groups to share out why some parts/elements may have been left off and why they weren't needed on this map.
4. Distribute a one centimeter cube, Note: If you believe your students will have difficulty with just one cube, give them a handful of the cubes so they can use them to get to their location.
5. Tell the students that the scale is one cube = 10 steps. Then have the groups pick a place on the map they wish to visit.
6. Distribute the Writing Directions for Amusement Park Map worksheet and explain how they will be creating 5 directions to get to their destination on the amusement park map. Before students begin to fill in the worksheet, point out the word boxes at the bottom that can help with direction and movement words.
7. As groups finish, have them share with the group next to them. See if this group agrees with their directions and number of steps to get to the next place on the map.
8. Conclude the day by telling students that the next day they will be gathering information in order create a map of their own and then have their other groups find the loot/treasure that is hidden there.

SESSION THREE and FOUR:

Prior to this session, enlist some classroom volunteers to help with this part of the lesson. Depending on the age of the students, you may need to sketch out the area. If you give them a map that is pre-drawn, leave off the legend so that the students have to make up their own legend symbols for the objects on the map.

1. Introduce the session by saying, "Okay, pirate cartographers, today you have some loot/treasure to hide. And of course, you will need a map to someday go back and find the loot/treasure.
2. Review the vocabulary words and parts of a map from previous sessions
3. Listen to: [How I Became a Pirate](#) by Melinda Long on You Tube: (7:11 min)
www.youtube.com/watch?v=y4m_BW5yddU

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4. Divide students into groups of 4. Hand out a clipboard, a pencil and grid paper to each student. Explain that each group will be finding spot in the designated area (your schoolgrounds or nearby park) to hide their loot/treasure. Each student will do the assignment, but the group will pick the best one to share.
5. Tell them that they will have to have at least two wayward points/directions before getting to the loot. Remind them they can use the Writing Directions for Amusement Park Map worksheet from Session Two to help guide them through the process.
6. Project the Teacher Sample map so they can see what the map should look like. Project the Scoring Guide for Map Work and for Written Directions so they can see what components are needed on their maps.
7. Take students to the designated area. Hand out a compass to each group. Have the groups practice finding north, east, south, and west using the compass. Challenge them to find southeast and the other intermediary directions. Remind them that their written directions must include the compass directions.
8. Allow time for students to sketch the area (unless given a predrawn map), determine their hiding place, pace out how many steps it takes, and write the directions to direct others to their loot/treasure.
9. At this time, classroom volunteers will work with groups as the groups are walking around, strategizing where they will be hiding their treasure/loot. Etc. Classroom volunteers can also help the groups have clear directions and accurate maps before leaving the designated area.
10. Project or distribute the Scoring Guide for Map Work and the Scoring Guide for Written Directions so students can use them for checking over their work.
11. After the directions are written and the maps are completed, have groups trade maps. Return to the designated area and see if the new groups can find the treasure/loot.

Assessment

Geography

Use the Scoring Guide for Map Work to measure the groups' map making skills. Mastery will be considered 80% or higher on the scoring guide.

ELA and Geography

The Writing Directions for Amusement Park Map worksheet can be graded for completeness and using a variety of words for movement. Mastery will be considered 80% if the worksheet is done well and at least 2 different movement words are used besides "walk."

ELA

Use the Scoring Guide for Written Directions to measure the groups' ability to write directions. Mastery will be considered 80% or higher on the scoring guide.

The Vocabulary Test can be given to measure vocabulary acquisition. Mastery will be considered 80% or higher on the test.

Extensions

- Students could create their own sea shanties, using geography terms such as map, compass, scale, key, legend, etc.
- Students could critique each other's directions. What helped them the most?, What was hard to understand in the directions?
- Students could write riddles to identify the next object they are trying to have the other group find.
- For younger students, have them practice counting out the steps to get to each waypoint. They could even count by 2, 5, 10 etc.

Sources

Map of favorite amusement park: Google.com
Universal Studio Map, Universal Studio company
Book:

Rabe, Tish [There's a Map on My Lap](#), Random House publishing, New York, NY 2002 or look up on Google.com-read aloud

How I Became a Pirate by Melinda Long on YouTube: www.youtube.com/watch?v=y4m_BW5yddU