

Maps: Understanding Directionality and Location

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Grade Level 1
Duration 3 class periods

National Standards

GEOGRAPHY Element 1: The World in Spatial Terms

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

Element 2: Places and Regions

4. The physical and human characteristics of places

AZ Standards

ELA

Key Ideas and Details

1.RL.1 Ask and answer questions about key details in a text.

Writing

Text Types and Purposes

1.W.3 Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure. (Extension idea)

Speaking and Listening

Comprehension and Collaboration

1.SL.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).

Language Standards

Conventions of Standard English

1.L.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. (Extension idea)

MATHEMATICS

Measurement and Data

1.CD.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Arizona Social Science Standards

Geography

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

1.G1.1 Use, explore and construct maps, graphs, and other geographical representations to support content focus.
 1.G1.2 Use a grid to locate places.

SIOP Elements

SIOP Elements		
Preparation Adapting content Linking to background Linking to past learning Strategies used	Scaffolding Modeling Guided practice Independent practice Comprehensible input	Grouping Option Whole class Small groups Partners Independent
Integrating Processes Reading Writing Speaking Listening	Application Hands on Meaningful Linked to objectives Promotes engagement	Assessment Individual Group Written Oral

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Arizona English Language Proficiency Standards

Grade 1

Basic

Listening and Reading

Standard 1 By the end of each language proficiency level, an English learner can construct meaning from oral presentations and literary and informational text through grade appropriate listening, reading, and viewing.

B-1: ask and answer questions such as who, what, where, why, when, and how about key details in a text.

Standard 2 By the end of each language proficiency level, an English learner can determine the meaning of words and phrases in oral presentations and literary and informational text.

B-1: determine the meaning of general academic, and content-specific words and phrases, and some common expressions.

Speaking and Writing

Standard 3 By the end of each language proficiency level, an English learner can speak and write about grade appropriate complex literary and informational texts and topics.

B-1: communicate simple messages about a variety of topics, experiences, or events.

B-2: add appropriate drawings or other visual displays to clarify thoughts and feelings about a variety of topics, experiences, or events.

B-3: compose short written texts using appropriate conventions (narrative and informational).

B-4: produce writing with appropriate organization on a variety of topics, experiences, or events using sentence frames.

Overview

Mapping skills are important skills to have. While many rely on GPS tracking devices to navigate their way from place to place. Maps are still important especially where there is no cell service. By engaging students in a series of mapping lessons and activities, students will develop important spatial reasoning skills.

Purpose

In this lesson, students will learn how to read simple maps and understand how to use the compass rose. They will locate places using a grid and learn to give oral directions using directional words (north, east, south, west). This lesson contains adaptations for diverse learners (ELLs).

Key Vocabulary

map - a drawing that helps us know where to go

compass rose - a drawing on a map that is used to find direction (north, east, south, west)

direction - any of the four principal compass directions (north, east, south, and west)

symbol - something that stands for something else

key or legend - a list that explains the symbols on the map

grid - a network of lines that cross each other to help us locate places or things

Materials

- Pretest/Posttest and Answer Key
- Map of Your Classroom (drawn by the teacher on large paper, on whiteboard, or on small sheet of paper and is projected)
- Optional but encouraged: Variety of maps
- Vocabulary Cards
- Projection device and computer
- Map of the School
- Map of the Park
- Books about Maps
 - Follow That Map by Scot Richie
 - Me on the Map by Joan Sweeney
 - There's a Map on My Lap! All About Maps by Tish Rabe
- City Map
- Reading a Map Grid worksheet
- Sheet of Compass Roses
- Object to hide and find (toy, camera, book, pencil, etc.)
- Sentence Frames
- Extension Idea
 - 1 inch graph paper
 - Extension Idea worksheet and Scoring Guide

Objectives

The student will be able to:

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1. Participate in collaborative conversations about maps.
2. Locate places on a map by using a grid.
3. Use spatial language.
4. Construct a simple map demonstrating knowledge of cardinal directions and map symbols and legend.

Procedures

Prior to this lesson: Teacher must understand that maps are drawn looking down on the subject matter. This is called bird's eye view. To understand more, see lesson called Shape of My World: Mapping a Classroom <https://geoalliance.asu.edu/node/232> and look at the Classroom map https://geoalliance.asu.edu/sites/default/files/maps/Classroom_a.pdf
Students are given the pretest.

SESSION ONE

1. Begin the lesson by presenting the class with a map of the classroom. Activate their prior knowledge by asking them: What place is being shown in the map? What are elements they recognize (symbols, title, grid, etc.)? Who do they think made the map? From this map, how would you tell someone where you sit?
(Preparation: Linking to past learning)
2. Then introduce the word "map" and explain that a map is a drawing that helps us know where to go. It is drawn as if you were a bird looking down on the earth. If possible, show or project a variety of maps so students see that maps can show all sorts of things and come in various sizes. You can also project the map found at https://geoalliance.asu.edu/sites/default/files/maps/Classroom_a.pdf
3. Introduce the key vocabulary by projecting the Vocabulary Cards--one card at a time and explaining the definition. Model how to use each word in a sentence and then provide opportunities for students to use the words in context. **(Scaffolding: Comprehensible input; Application: Linked to objectives)**
4. Project a map of the school. Point out at the different buildings such as the office, cafeteria, library, etc. Invite students to identify the location of the different building using the compass rose to identify west, east, south, and east. Support students with sentence frames such as: The office is ____ from the blacktop. Our classroom is ____ from the cafeteria.
5. Follow the same process with the Map of the Park. Make sure to introduce the key feature in this map. Discuss with students what each symbol means. Support students with sentence

frames such as: The slide is ____ from the pond. The lake is ____ from the sand box. Invite students to **name** the different objects that they see at each individual map. **(Scaffolding: Comprehensible input; Application: Linked to objectives)**

SESSION TWO

1. Read the book, *Follow that Map* by Scot Ritchie or one of the other recommended books.
(Application: Promotes engagement)
2. Provide opportunities to check for understanding and engage students in conversations with each other about the story. Pay special attention to explaining the key vocabulary words of this lesson (map, legend or key, compass rose, grid, direction, and symbols) as the words come up in the book.
3. Project the City Map. Point out the different features of the map such as the compass rose. Review the meaning of the letters S, N, E, & W on the compass rose. Invite students to share what they see. Have sentence frames such as: The bank is ____ of the hospital. The church is ____ of the park.
4. Project the Reading a Map Grid worksheet covering up the questions below. Demonstrate how the lines form boxes and the boxes can be identified by going across to get the letter of the box and then going up to get the number of the box. Have students practice locating various places on the map (Police, Water, etc.,) until you are comfortable that they understand how to use the grid. Have students suggest places to add that are on the key but not in the grid (ex: airport). Draw these in.
5. Distribute the worksheet and have students complete it as partners or individually.
(Scaffolding: Comprehensible input; Application: Linked to objectives, Grouping Option: Whole class, Independent, Partners)

SESSION THREE

Prior to the Lesson: Print and cut apart compass roses from the sheet provided.

1. Review how to use the compass rose and place a compass rose on the desks of each student. Also place signs on the walls of the classroom designating north, south, east, and west. Have students adjust their desk version of the compass rose so the directions match the wall signs. **(Scaffolding: Comprehensible input; Application: Linked to objectives)**
2. Tell the students that to practice using the compass rose that they will play a game of Find

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the _____. The directions are: One student faces away from the class, and the rest of the students agree on where to hide the object. Once the object has been hidden, the student is brought to the front of the class and one of his/her classmates gives him/her clues using location language (The camera is north of Charlie. The camera is south of the teacher.) The student who finds the object is less than 3 tries, gets to go again. Otherwise, a new student gets chosen.

3. Project the Sentence Frames. Model the first time playing the game by using the Sentence Frames. Encourage students giving the directions to use the Sentence Frames. **(Scaffolding: Modeling, Guided Practice; Application: Hands on, Promotes engagement; Integrating Processes: Listening, Speaking, Reading)**
4. Play the game whenever there is time during the rest of the year
5. Give the Pretest as a Posttest.

Assessment

Geography and ELA

The posttest can be graded. Mastery will be considered a score of 80% or higher.

Playing the Find the Object game could be graded for participation. Use your classroom rules to determine satisfactory or not.

The Vocabulary Test can be graded to measure language acquisition. Mastery will be considered a score of 80% or higher.

Geography and Mathematics

Reading a Map Grid worksheet can be graded for accuracy. Mastery will be considered a score of 80% or higher. **(Assessment: Written, Oral, Individual)**

Extensions

Students create a map of their bedroom using grid paper. Then they write a story about something that happened in this room (fictional or true) and then they share their map and story with the class.

Sources

Follow that Map by Scot Ritchie ASIN: B01FMVZPY2