1st Grade Geography Map Skills Inquiry

How do maps talk to us?

Supporting Questions

1. Why do maps have symbols?
2. How do a map key and compass rose help people read maps?
3. How does a bird’s-eye-view of a place help you see it?
4. How can the same place be represented by different types of maps?

Tes.Com Maps by Ricardo Bonasia  [https://www.tes.com/lessons/fUXgT-AYai5HVw/maps](https://www.tes.com/lessons/fUXgT-AYai5HVw/maps)
# 1st Grade Geography Map Skills Inquiry

## How do maps talk to us?

### Arkansas Social Studies Standards

G.8.1.3 Construct and label maps of familiar places.

### Staging the Compelling Question

Watch [Let’s Explore! Learning about Maps](https://www.youtube.com/watch?v=example) by Anna Crocker available on Youtube to facilitate a discussion about maps.

<table>
<thead>
<tr>
<th>Supporting Question 1</th>
<th>Supporting Question 2</th>
<th>Supporting Question 3</th>
<th>Supporting Question 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>How are symbols used on a map?</td>
<td>How do a map key and compass rose help people read maps?</td>
<td>How does a bird’s-eye-view of a place help you see it?</td>
<td>How can the same place be represented by different types of maps?</td>
</tr>
</tbody>
</table>

### Formative Performance Task

**Make a list of physical and human characteristics and related symbols that might appear on a map.**

### Formative Performance Task

**Create a map key for a map of their classroom and include a compass rose.**

### Formative Performance Task

**Draw a map of a familiar place using a bird’s-eye-view.**

### Formative Performance Task

**Create two different maps; the first map shows major cities and illustrates physical characteristics of AR; the second map illustrates economic resources.**

### Featured Sources

<table>
<thead>
<tr>
<th>Source A</th>
<th>Source B</th>
<th>Source C</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="https://www.nationalgeographic.com">Mapping Penny’s World</a></td>
<td><a href="https://www.youtube.com/watch?v=example">What are Maps?</a> Learn &amp; Grow Kids Geography Lesson – Leap Frog – Youtube (&lt;46)</td>
<td><a href="https://www.youtube.com/watch?v=example">Jon Scieszka’s Trucktown Kat’s Maps</a></td>
</tr>
<tr>
<td><a href="https://www.youtube.com/watch?v=example">My Map Movie Digital Story</a> by Rachel A Dempsey Youtube (4:23)</td>
<td><a href="https://www.youtube.com/watch?v=example">Market Maze</a> Roxie Munro</td>
<td><a href="https://www.youtube.com/watch?v=example">Henry’s Map</a> David Elliot</td>
</tr>
</tbody>
</table>

### Summative Performance Task

**ARGUMENT:** How do maps talk to us? Construct an argument (e.g., detailed outline, poster, essay) that discusses the compelling question using specific claims and relevant evidence from the sources.

**EXTENSION:** Introduce geographic technology. Access Google Earth and zoom in to the local community/city/region. Discuss how these maps look different from the maps they have seen in the sources. Time permitting teacher can show students how to zoom from a bird’s-eye-view to the street view of the school. **Source A:** [Gain a New Perspective](https://www.youtube.com/watch?v=example) by Google Earth (<55)

### Taking Informed Action

**UNDERSTAND:** Maps have a variety of uses; they show us many things about places and help us get from one place to another.

**ASSESS:** How a new student would find their way around the school.

**ACT:** Draw a map of the school including a title, map key, compass rose, and scale.
Overview

Inquiry Description

This inquiry leads students through an investigation of the compelling question, "How do maps talk to us?" Students create symbols, use directional words and a compass rose, develop map keys, and discover relationships among items on a map as they learn to use the language of maps. They are able to distinguish between physical and human characteristics and understand that the purpose of the map dictates what information is on the map. By investigating the compelling question, “How do maps talk to us?” students evaluate the variety of information that maps provide and what information is necessary depending on the purpose of the map. The formative performance tasks build on knowledge and skills through the course of the inquiry and help students gain proficiency in the rudiments of geography. Students create an evidence-based argument explaining ways in which maps speak to us, and why maps represent different things.

In addition to the Key Idea listed previously, this inquiry highlights the following Conceptual Understandings:

- **D2.Geo.2.K-2.** Use maps, graphs, photographs, and other representations to describe places and the relationships and interactions that shape them.
- **D4.3.K-2** – Present a summary of an argument using print, oral, and digital technologies.

It is important to note that this inquiry requires students to acquire prerequisite knowledge of map skills in order to complete the formative performance tasks for Supporting Questions 3 and 4. Thus, the AR standards below are taught in Supporting Questions 1 and 2.

- **G.8.1.1** Use map keys, legends, symbols, compass rose, and directional words to show a relationship between places.
- **G.8.1.2** Use maps, globes, and photographs to describe physical and human characteristics of a familiar place.

The book *Market Maze* provides a wonderful introduction to economic resources, geography, and maps. Roxie Munro’s book fits into this inquiry on several levels; it is a series of maps (mazes) illustrating the sources of certain foods and the routes taken for the food to arrive at specific destinations. This book is one of the Supporting Question 3 sources. Following this inquiry it could be a good time to introduce and discuss connections between geography and economics addressing the following AR standards:

- **G.10.1.2** Discuss reasons and ways that people, goods, and ideas move from place to place.
- **G.11.1.2** Discuss how the consumption of products connects the local community to distant places.

Note: This inquiry is expected to take six (6) 40-minute class periods. The inquiry time frame could expand if teachers think their students need additional instructional experiences (i.e., supporting questions, formative performance tasks, and featured sources). Teachers are encouraged to adapt the inquiry to meet the needs and interests of their particular students. Resources can also be modified as necessary to meet individualized education programs (IEPs) or Section 504 Plans for students with disabilities.
Structure of the Inquiry

In addressing the compelling question “How do maps talk to us?” students work through a series of supporting questions, formative performance tasks, and featured sources in order to construct an argument supported by evidence while acknowledging competing perspectives.

Staging the Compelling Question

In staging the compelling question, “How do maps talk to us?” show students Let’s Explore! Learning about Maps by Anna Crocker available on Youtube (2:19). This video presents a nice overview of types of maps and what maps are for presented in a song. Follow with a discussion, the discussion should include different types of maps, reasons why people use maps, and what types of things are on maps.

Show students a variety of types of maps (local, state, national, physical, resource, climate, road); ask students to select which map they like best; get into groups based on map selection, and have students tell why they chose that particular map. Follow-up by asking what information is on the map, why would a person use this map, and is this map easy to read.

Video option 2: Teachers may prompt students by showing an episode from Dora the Explorer Lost City Adventure Part 1 or Part 2 to facilitate a discussion about maps. The discussion should include different types of maps, reasons why people use maps, and what types of things are on maps.

Supporting Question 1

Supporting Question 1—“How are symbols used on a map?”—offers students the opportunity to learn what symbols are, why we use them, and what they mean on a map. The formative performance task asks students to complete a worksheet defining terms and thinking of ways to represent physical and human characteristics as symbols. The featured sources for this question provide students with examples of maps and map symbols for both physical and human characteristics. The sources include print and video formats.

- **Featured Source A:** Beginner’s World Atlas, National Geographic. This atlas is not as detailed as atlases for adults and older students. It is uncluttered, has simple labels; the lay-out and colors make this atlas age appropriate for grade 1 students. It contains information about basic geographical terms, types of maps, and continents.
- **Featured Source B:** My Map Book Sara Fanelli is a fun look at a variety of maps from the perspective of a very young cartographer. Included are maps of my tummy, dog, bedroom, and a treasure map. It provides a great opportunity to introduce students to maps and map elements.
- **Featured Source C:** 2nd Grade Understanding and Making Maps Symbols Youtube (2:58). This source is appropriate for grade 1. The short video describes what a symbol is and how symbols are used on maps.
Supporting Question 1: Why do maps have symbols? Symbols, physical, and human characteristics chart. Complete the chart below.

1. A symbol is _____________________________________________________________.

2. What is a **physical characteristic**? _______________________________________.

3. What is a **human characteristic**? ________________________________________.

<table>
<thead>
<tr>
<th>Name 5 physical characteristics that you would find on a map.</th>
<th>Draw a symbol each physical characteristic.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lake</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
<tr>
<td>Name 5 human characteristics that you would find on a map.</td>
<td>Draw a symbol of each human characteristic.</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>1. Road</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

4. How do symbols help people read a map? 

______________________________________________________________________________________
Supporting Question 2

Supporting Question 2—”How do a map key and compass rose help people read maps?”—students are asked to think more deeply about ways in which maps speak to us, and how we decipher the language of maps. The variety of maps presented in the suggested sources for this supporting question provide numerous examples of maps and map elements. Students should be encouraged to closely examine a place (real or imaginary) noticing all of the details that should be included on a map. A continuation of symbols from supporting question 1 will assist students in completing the activities for this supporting question.

The formative performance task asks students to create a map key for a map of their classroom and include a compass rose. The teacher may choose to draw a map of the classroom using symbols that the students have drawn on the activity sheet. Then ask the students to make a map key in the appropriate box.

In addition to the resources from the previous supporting question, the featured sources for this question provide students with additional materials that allow them to expand their knowledge of map skills and the essential elements contained on maps. Teachers can introduce scale at this time using these resources and those for supporting question 1. The sources include print and video formats.

- **Source A:** [Mapping Penny’s World](#) Loreen Leedy Appropriately, this book is about Lisa, her dog Penny, and the map making skills Lisa has learned in class. Lisa makes a variety of maps and includes the essential elements needed to be able to read the maps. She even makes a map for her dog Penny. This book reinforces what students have already learned in supporting question 1 and adds supporting question 2 content reinforcing the importance of a map key and compass rose.

- **Source B:** [What are Maps?](#) Learn & Grow Kids Geography Lesson – Leap Frog – Youtube (:31) This video gets to the point quickly explaining what maps are and the essential elements of a map including a scale.

- **Source C:** Jon Scieszka’s Trucktown [Kat’s Maps](#) This is a good source for emerging readers or independent reading. It reinforces you can use maps to show people how to get to a specific place.
Supporting Question 2: How does a map key and a compass rose help you read a map?

Make a list of all of the items you would include on a map of your classroom. Draw a symbol to identify that item on a map.

<table>
<thead>
<tr>
<th>Name of the item that would appear on a classroom map.</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student desks/tables</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>
Make a map key for your classroom using the symbols in your chart above.

<table>
<thead>
<tr>
<th>What does a compass rose tell you?</th>
<th>Draw a compass rose below.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Supporting Question 3

Supporting Question 3—“How does a bird’s-eye-view of a place help you to see it?”—asks students to try to envision a place from above rather than the perspective from the ground. Teachers may choose to begin this supporting question by showing the Youtube video and/or reading Henry's Map. These sources are both good examples of a bird’s-eye-view. Students should quickly grasp the concept of looking from above when creating a map or reading a map based on all the sources they have used so far. This is a good time to discuss spatial relationships, the advantages of being able to see “big” pictures of a place/region, and so on. The formative performance task asks students to draw a map of a familiar place requiring them to use a bird’s-eye-view. In addition to the previous featured sources, the following sources are suggested for this supporting question.

- **Source A:** [My Map Movie Digital Story](https://www.youtube.com/watch?v=423) by Rachel A Dempsy Youtube (4:23). This video was created to assist in teaching first grade students map skills and basics.
- **Source B:** [Henry's Map](https://www.youtube.com/watch?v=423) David Elliot. Henry must have everything in its place! He draws a map of the farm in order to straighten out the mess, but he and his farm friends discover something bothersome. There are no more animals on the farm.
- **Source C:** [Market Maze](https://www.youtube.com/watch?v=423) Roxie Munro. This book is great for introducing the connections between economics and geography (G.10.1.2 Discuss reasons and ways that people, goods, and ideas move from place to place. G.11.1.2 Discuss how the consumption of products connects the local community to distant places.) Market Maze contains several maps depicting a variety of foods going from place of origin to market. Students can interact with the various maps by locating specific items and hidden surprises.

Supporting Question 4

Supporting Question 4—“How can the same place be represented by different types of maps?”—requires students to think about the variety of types and purposes of maps. Sometimes putting everything on one map creates too much confusion. For the formative performance task students must use the skills they have developed throughout this inquiry. They are asked to complete a couple different maps of their state or region of the state depicting different things; physical characteristics and major cities such as your city, Little Rock, Hot Springs, Fayetteville, Jonesboro, Texarkana; economic resources such as trucking, oil, cotton, timber. Students should include the elements of a map (title, key, compass rose, scale) they have previously learned. There is quite a bit of latitude on this activity so use your creativity. In addition to the resources from the previous supporting question, the featured sources provide students with additional materials that allow them to review what they have learned and create their own maps.

- **Source A:** [Beginner's World Atlas](https://www.nationalgeographic.com) National Geographic
- **Source B:** Teacher selected maps of local community or state (physical map, climate map, natural resources map)
Arkansas - The Natural State
At this point in the inquiry, students have an understanding of symbols and maps features, they have examined a variety of maps, purposes of maps, and perspectives of maps.

Students should be expected to demonstrate the breadth of their understandings and their abilities to use evidence from multiple sources to support their claims. In this task, students construct an evidence-based explanatory argument using the sources for this inquiry to answer the compelling question “How do maps talk to us?” It is important to note that students' explanations and argument should be appropriate for grade 1 and could take a variety of forms, including a detailed outline, poster, or essay. For grade 1 students the argument could begin with “Maps talk to us by ...”). Think about having students work as a whole class to orally finish the statement. Then have students copy the sentence from the board and list the ways in which maps talk to us based on the sources used throughout the inquiry. Suggest that students look over the formative performance tasks they have completed to assist in answering the question. At this grade level students are beginning the process of developing an explanatory argument.

Students’ arguments will likely vary, but could include any of the following:

- **ARGUMENT STEM 1:** Maps talk to us with pictures.
- **ARGUMENT STEM 2:** Maps talk to us by showing us where things are located and how to get there.
- **ARGUMENT STEM 3:** Maps can tell us about a city, state, or neighborhood in a small space.
- **ARGUMENT STEM 4:** Maps tell us different things about a place.

To extend their arguments, teachers may access Google Earth and zoom in to the local community/city/region. Discuss how these maps look different from the maps they have seen in the sources. Time permitting teacher can show students how to zoom from a bird’s-eye-view to the street view of the school. Source A: [Gain a New Perspective](#) by Google Earth (:55)

Students have the opportunity to Take Informed Action by drawing on their understandings of map skills, features, and variety of purposes. To understand, students discuss what would happen if a road was under construction or being repaired and they could not take the usual route to school. To assess the issue, students could come up with a few different alternate routes, or scenarios which would require someone to take an alternate route. To act, students could draw a map showing the alternate route.