

# Map Adventures: Introducing Geography Concepts

Robert L. Stevens and Marsha Hatfield

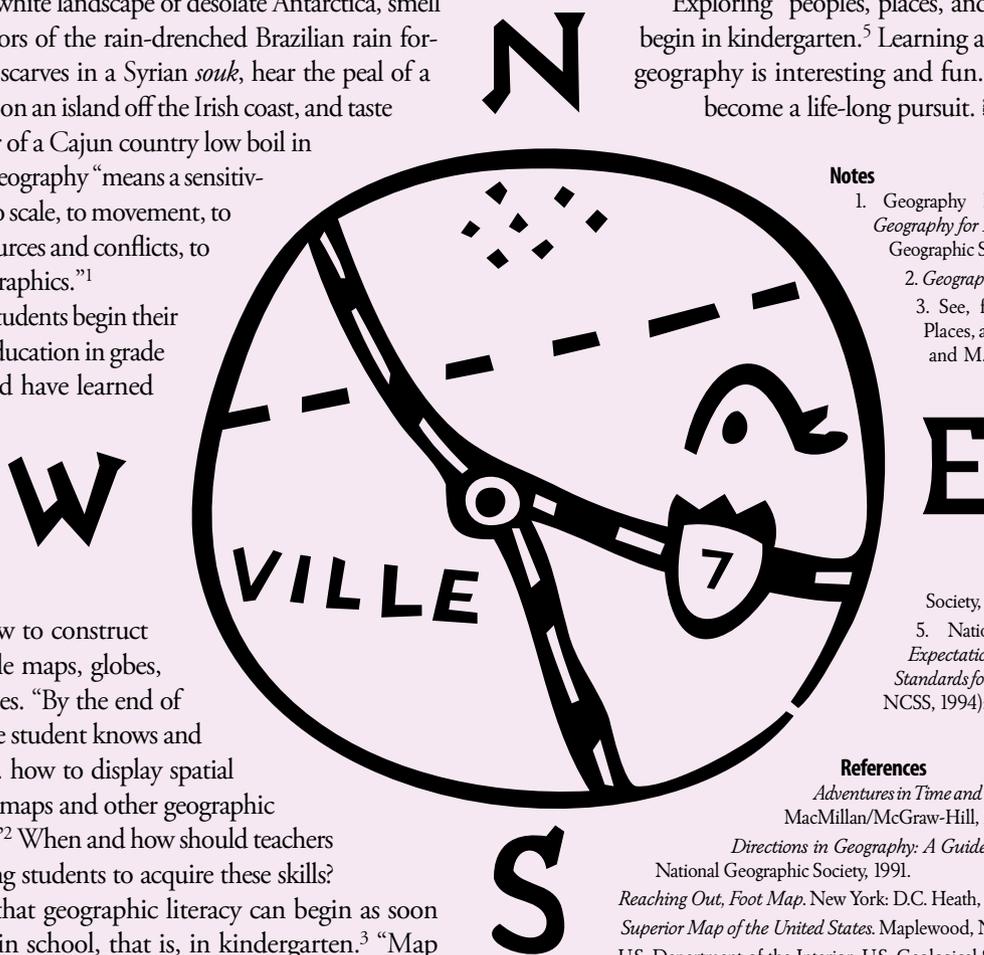
**GEOGRAPHY INSPIRES THE IMAGINATION.** It takes us to places we have never been, exposes us to cultures and landscapes we have not seen, and helps us to understand what it is to be part of a larger humanity. The geographical imagination allows the mind's eye to scan the sun-white landscape of desolate Antarctica, smell the pungent odors of the rain-drenched Brazilian rain forest, feel the silk scarves in a Syrian *souk*, hear the peal of a monastery's bell on an island off the Irish coast, and taste the savory flavor of a Cajun country low boil in New Orleans. Geography "means a sensitivity to location, to scale, to movement, to patterns, to resources and conflicts, to maps and geo-graphics."<sup>1</sup>

By the time students begin their middle school education in grade five, they should have learned not only how to read and comprehend basic geographic information, but how to construct their own simple maps, globes, graphs, and tables. "By the end of fourth grade, the student knows and understands . . . how to display spatial information on maps and other geographic representations."<sup>2</sup> When and how should teachers begin challenging students to acquire these skills?

We believe that geographic literacy can begin as soon as students begin school, that is, in kindergarten.<sup>3</sup> "Map Adventures" is a kindergarten unit of instruction that introduces geographic concepts to young learners with age-appropriate activities. Six lessons, based on a series of questions, provide teachers with instructional strategies that can help kindergartners understand basic spatial relations, represent physical features on paper, and use some of the basic vocabulary of geography. (See the lessons following this article.)

Geography helps us comprehend the world in an orderly way, to look for relationships and patterns, and to resolve a wide range of issues. Knowledge of geography provides us with the information and tools we need to be responsible citizens able to act on issues and policies that affect the quality of life in our neighborhoods, our nation, and our world.<sup>4</sup>

Exploring "peoples, places, and environments" should begin in kindergarten.<sup>5</sup> Learning about physical and social geography is interesting and fun. With any luck, it will become a life-long pursuit. ☞



## Notes

1. Geography Education Standards Project, *Geography for Life* (Washington, DC: National Geographic Society, 1994): 18.
2. *Geography for Life*, 106.
3. See, for example, "Part 3: People, Places, and Environments" in M.E. Haas and M.A. Laughlin, eds, *Meeting the Standards; Social Studies Readings for K-6 Educators* (Washington, DC: NCSS, 1997): 65-84.
4. *Directions in Geography: A Guide for Teachers* (Washington, DC: National Geographic Society, 1991): 19.
5. National Council for the Social Studies, *Expectations of Excellence: Curriculum Standards for Social Studies* (Washington, DC: NCSS, 1994): 35, 54-56.

## References

- Adventures in Time and Place: My World Map*. New York: MacMillan/McGraw-Hill, 2001.
- Directions in Geography: A Guide for Teachers*. Washington, DC: National Geographic Society, 1991.
- Reaching Out, Foot Map*. New York: D.C. Heath, 1998.
- Superior Map of the United States*. Maplewood, NJ: Hammond, 1995.
- U.S. Department of the Interior, U.S. Geological Survey. 2001. [www.usgs.gov/education/](http://www.usgs.gov/education/)

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### Lesson 1. A Mouse's Perspective

Begin class by reading aloud *As the Roadrunner Runs*, by Gail Hartman. Ask students to point out what each animal sees from its perspective. Describe the various habitats of the different animals, and discuss how each animal's perspective relates to where and how it lives. Then take your students outside to the edge of the playground. Ask them to lie down on their tummies on the asphalt and observe the edge of a grassy lawn from the point of view of a mouse. Ask them to reach out and stick their finger in the grass while still lying down, then to look for their finger hiding in the blades of grass (or weeds or pebbles).

Give each a paper and pencil and ask them to record observations by drawing what they see. If you would like, take a digital photograph at ground level to compare later with your student's artwork. (You might wish to take a few snapshots of the young geographers-in-action as well.) When you return to the classroom, discuss with your students their observations and their drawings, which can be hung on the wall.

- What colors did they see from the mouse's point of view?
- What shapes did they see?
- Could they see their fingers in the grass?
- Was it easy or difficult to draw what they saw?
- How did it feel to look at the Earth from a mouse's point of view?



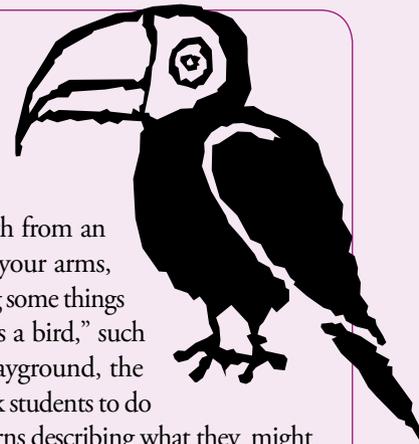
### Lesson 2. A Bird's Perspective

Begin class by reading aloud *As the Crow Flies*, by Gail Hartman. The book illustrates different settings from an overhead perspective.

Model how to imagine the Earth from an aerial perspective by extending your arms, closing your eyes, and mentioning some things that you can "see from the air as a bird," such as the top of the school, the playground, the road, and winding river. Then ask students to do the same. Students could take turns describing what they might see from a high vantage point.

Once again, take your students out to the playground. This time explain that even though this is the same playground that they have been on many times, it will appear different when we change our perspective. Ask the students to take turns climbing to the top of a piece of playground equipment (the monkey bars, slide, bridge, etc.). Do not let them crowd together in a high place, of course, as they might jostle and fall. Ask them to draw just one thing that they can see from the bird's perspective. Again, take photographs to compare with your student's illustrations. Back in the classroom, discuss their observations, helping students to remember some of the differences between the mouse-eye-level view and the eagle's perspective.

- How is the bird's view different from the mouse's view?
- Is it easy to see individual blades of grass from high up?
- Who sees more of the landscape at one glance: the bird or the mouse?
- Who probably sees more bugs on the ground: the bird or the mouse?

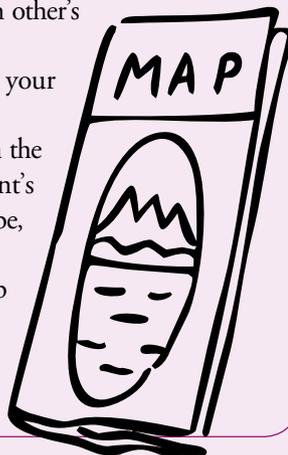


### Lesson 3. Map and Symbols

After the students have had practice looking at a familiar outdoor environment from different perspectives, they are ready to draw a map of their classroom. Give them a large piece of paper. On the blackboard, draw six or seven items that are in the room: a student's desk, teacher's desk, bookshelf, globe, and flag, for example. Ask students to draw these items on the paper to show where they are in the room. If students are unclear on how to do this, begin a map on the board, with the teacher's desk and a row of student desks.

After the maps are drawn, gather the students in small groups and ask them to examine each other's maps.

- Can you recognize the items on your neighbor's map?
- Did your neighbor find a place on the map for all of the symbols (student's desk, teacher's desk, bookshelf, globe, and flag)?
- Can you find the spot on the map that shows where you are right now on your neighbor's map? On your map?

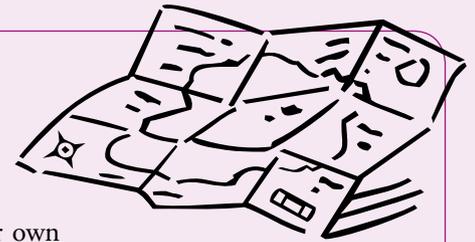


### Lesson 4: School Map and Journey

Once students have drawn a map of their own classroom, they are ready to study a school map.

Provide them with a simplified line drawing of the school's floor plan, showing "landmarks" such as their classroom, nearest exit from the building, restrooms, gym, cafeteria, main entrance, and office.

Demonstrate for your students how to use their school maps to locate places in the school by taking them on a journey around the school. Use the map as a guide. Each child can use a watercolor marking pen to highlight on the map the path they travel (following the teacher's example). Pause at intersections and at the "landmarks" noted above. Students can be invited to talk with different staff about their work as they arrive at each various workplaces: cooks in the cafeteria, secretaries in the main office, media specialists in the library, and custodians in the hallway.

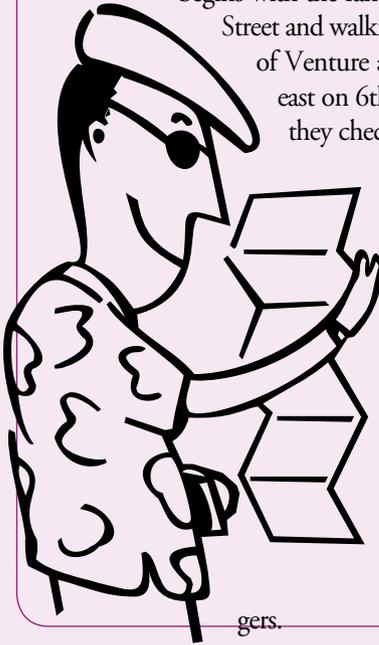


### Lesson 5. Neighborhood Map/Cardinal Directions

Once the students have used a map of their school, they are ready to view a map of their neighborhood. First, introduce a generalized, fictional neighborhood map (like those in *Adventures in Time and Place*) and ask students to use their fingers to trace the cardinal directions along their axes: north/south and east/west. Then, give each student a neighborhood map. This can be a simplified drawing of a map of the community, or it can be a fictional neighborhood.

Tell a story to the class about a child and parent going on an adventure together. Ask the children to follow the path of the adventure on their map with a pointed finger, following your example using a map posted up front. (Example: "The adventure begins with the family leaving their house on Elm Street and walking to the bus stop at the corner of Venture and 6th Street. The bus travels east on 6th and stops at the library where they check out several books. They leave the back door of the library and walk south to the Post Office. After that, they wanted to see the firemen wash the fire trucks. Finally, they walk over to the park to see the new petting zoo.")

Any variation on this idea can be used to describe a neighborhood that is familiar to your children. Just be sure the class follows along by tracing the journey's path with their fingers.



### Lesson 6: Hands-On Blue Planet

This activity introduces students to a globe and to the concept of graphing. Introduce the lesson by reading *I Live in So Many Places* by Jane Hengesaugh. Students will realize how many places people can live on the Earth. The teacher can use a globe to locate where on the Earth the students live. They can also observe that much of the Earth's surface is made of water.

The next activity is a globe roll. You will need a paper bag filled with 50 blue 2x2 inch squares and a different paper bag filled with 20 brown 2x2 inch squares.

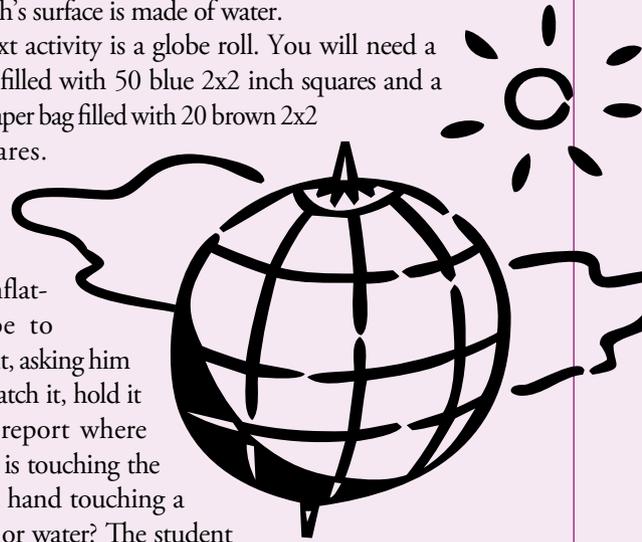
Children sit in a circle.

Roll an inflatable globe to one student, asking him or her to catch it, hold it still, and report where each hand is touching the globe. Is a hand touching a land mass or water? The student will select two squares from the bags depending on where his hands caught the globe (that is, most of the time students' hands will touch water, so two blue squares will often be selected. If one hand touches land and the other water, a brown square and a blue square are selected. Rarely, two brown squares may be selected).

When all the children each have selected two squares, gather up the squares into two piles, grouped by color. Tape all the blue squares in a line going from the corner of the floor on up the wall; likewise for the brown squares. A large bar graph results.

Students will observe that there are many more blue squares than brown. The stack of blue squares is higher. The teacher can state that "Most of us touched water, and so we chose blue squares. The blue stack is bigger."

Holding up the globe, the teacher can observe, "Most of the surface of the Earth, three-quarters in fact, is covered by water." Although the precise meaning of the phrase "three quarters" will probably not be understood by children until later grades, the idea of representing information with a three-dimensional graph (a globe) and with a bar graph (stacks of colored squares) has now been planted in their minds.



## An Annotated Selection of Geography Books for Kindergarteners

**Asch, Frank. *The Earth and I*. New York: McGraw-Hill, 1994.**

A young child interacts with the Earth. The story follows the child on a journey while explaining what humans are able to do for the Earth as well as the gifts we all receive from the Earth.

**Baer, Edith. *This Is the Way I Go to School*. New York: Scholastic, 1990.**

This story takes the reader on a journey around the world, celebrating the many different ways children travel to the classroom, such as on foot, by bus, on a boat, and on horseback.

**Daniels, Michele. *A Playground*. New York: McGraw-Hill, 2001.**

This picture book illustrates the objects and features in a typical school playground. The pictures show a ground-level view.

**Dillow, John. *Picture Atlas of the World*. Auburn, MN: Ladybird Books, 1992.**

Today, radio and television bring us news and stories from every part of the world. But you may not be quite sure exactly where the places you hear about are found. In this atlas, you will find maps full of information about the world we live in. Colorful symbols and illustrations show the main features of each country at a glance. The book includes sidebars with interesting facts and an index listing more than 1,000 places.

**Hartman, Gail. *As the Crow Flies: A First Book of Maps*. New York: Bradbury Press, 1991.**

A look at different geographical areas from the perspectives of an eagle, rabbit, crow, horse, and gull. For schools in the Southwest, there is *As the Roadrunner Runs—A First Book of Maps*. Simple maps show how different animals—including a lizard, a jackrabbit, a roadrunner, mules, and deer—travel over the land.

**Hengesaugh, Jane. *I Live in So Many Places*. New York: Children's Press, 1956.**

Children discover that not only do they live in a house on a street, but they are part of so much more. They are part of a city, state, country, and continent. The book extends the idea to include belonging to a hemisphere, planet, and universe. Children really do live in so many places.

**Hoban, Tana. *I Read Signs*. New York: Greenwillow Books, 1983.**

Long before children know they can read, they are reading signs they see every day. WALK, EXIT, STOP and many other words are often recognized in context—and read—almost as soon as a child can talk. Tana Hoban's photographs of signs that are part of our everyday lives will have young learners exclaiming and even reading long. Similarly, the book *I Read Symbols* presents images that are recognized around the world, even by the very young.

**Hoban, Tana. *Over, Under and Through*. New York: MacMillan, 1973.**

Children leap-frog over a fire hydrant, duck under “London Bridge,” and crawl through a large pipe. Tana Hoban's brilliant photographs of these activities set the stage for an exploration of spatial concepts.

**Wright, Ethel. *Saturday Walk*. New York: William R. Scott 1991.**

This book takes the reader on a walk with a father and son on a Saturday. They see the firefighters at a fire station, a man working on a bulldozer, garbage men emptying trash into the truck, and many other people doing a variety of things. The book talks about signs, directions, and people at work and play.