# Map Your Space

## Objectives

Students observe and identify the features of a selected environment from an overhead perspective.

Students graphically organize and represent their ideas from the space on a map. Older students use graph paper to draw to scale.

## Multiple Intelligences

- Logical-mathematical
- Naturalist
- Spatial

## National Standards

**Visual Arts Standard #3**
Choosing and evaluating a range of subject matter, symbols and ideas

**Social Studies Standard #3**
People, Places, and Environments—experiences that provide for the study of people, place, and environments.

**Health Education Standard #1**
Students will comprehend concepts related to health promotion and disease prevention to enhance health.

## Background Information

The first known map was made in the Middle East, on a clay tablet small enough to fit in your hand. It was drawn between 2300 and 2500 BCE! That's more than 4000 years ago. Experts think maps were probably used before then, although they haven't found any earlier examples. Computerized geographic information systems were developed in the 1960s, linking database information with maps to increase the amount of information that maps display.

Architects use maps called blueprints when they build homes. Often these maps or blueprint plans will show where all the features are placed in a room such as doors, windows, closets, and electrical outlets.

Interior designers also create maps of layouts of rooms in homes so they know where beds, dressers, chairs, and other furnishings will go.

## Resources

*As the Crow Flies: A First Book of Maps* by Gail Hartman
Innovative book about maps for 5- to 8-year-olds. Explores the world from various animals' points of view.

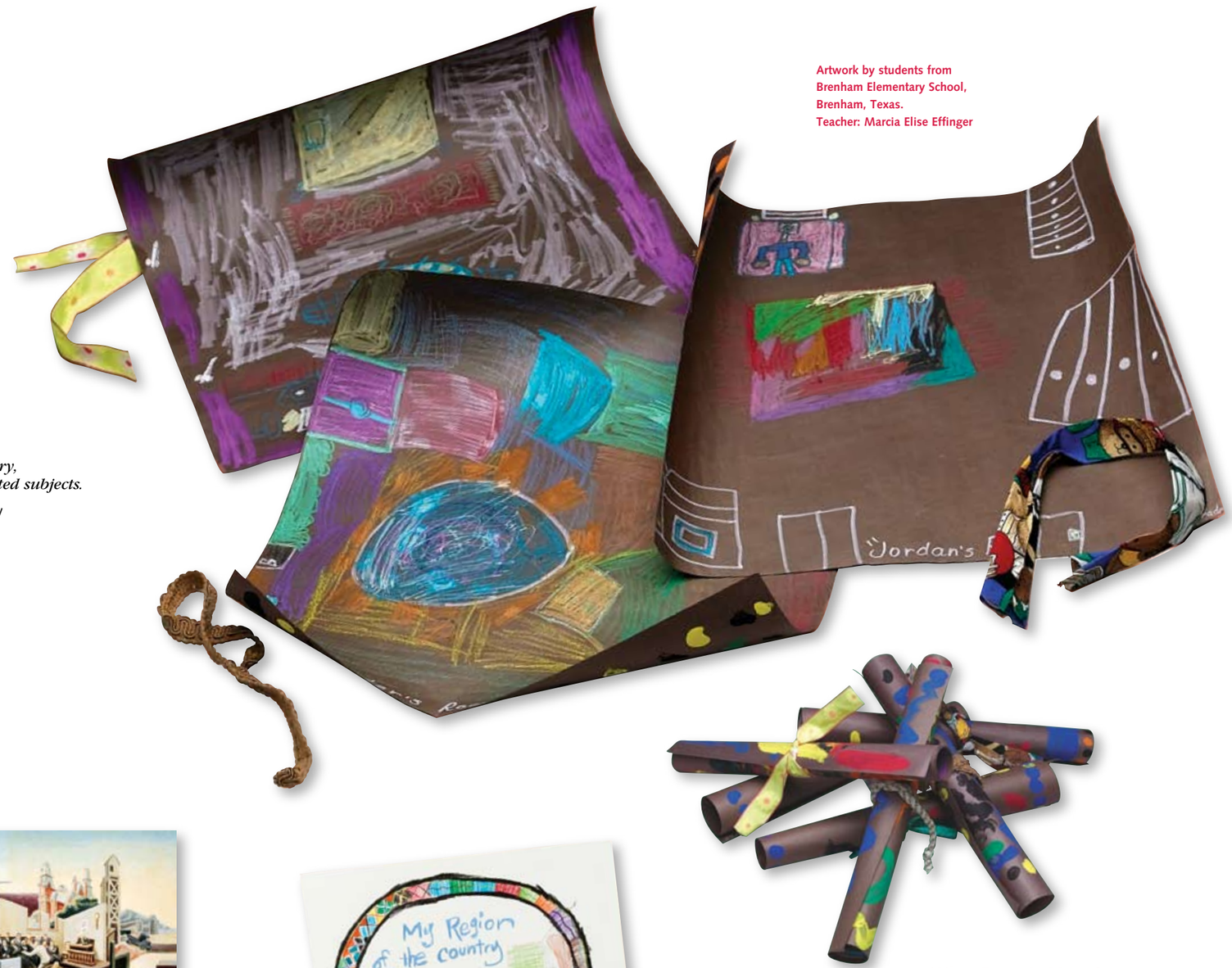
*Mapping Penny's World* by Loreen Leedy
For second to fourth graders. Readable story follows a child's mapping of her room.

*The Geography Book: Activities for Exploring, Mapping, and Enjoying Your World* by Caroline Arnold
Hands-on learning experiences for third through sixth grades.

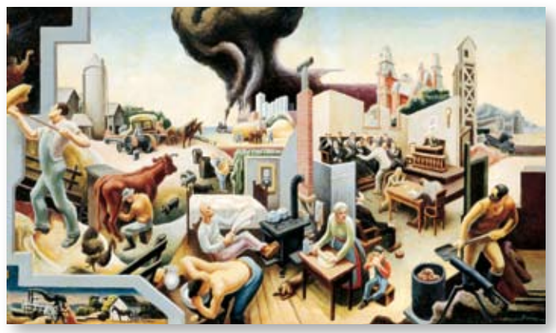
## Vocabulary List

*Use this list to explore new vocabulary, create idea webs, or brainstorm related subjects.*

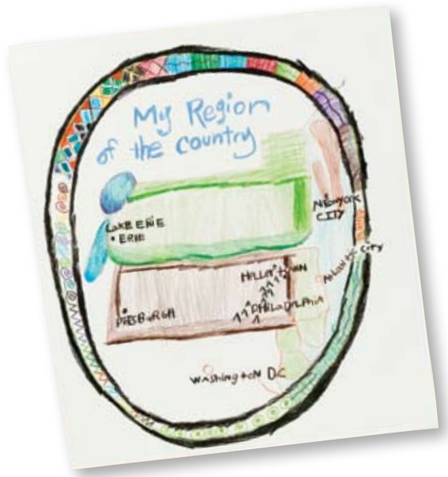
Atlas
Bird's-eye view
Blueprint
Cartography
Chart
Database
Dimension
Direction
Estimation
Graph
Key
Line
Map
Mapping
Maps
Models
Overhead view
Perspective
Place
Proportions
Region
Scale
Scale drawing
Shapes
Size
Space
Symbols
Visualize




Artwork by students from
Brenham Elementary School,
Brenham, Texas.
Teacher: Marcia Elise Effinger



**Interior of a Farm House**
1936
Artist: Thomas Hart Benton, American, 1889-1975
Tempera on board
18" x 30", SN950
Museum Purchase, Collection of The John and Mable Ringling Museum of Art, State Art Museum of Florida.




Artwork by students from
St. Theresa School,
Hellertown, Pennsylvania.

## What Does It Mean?

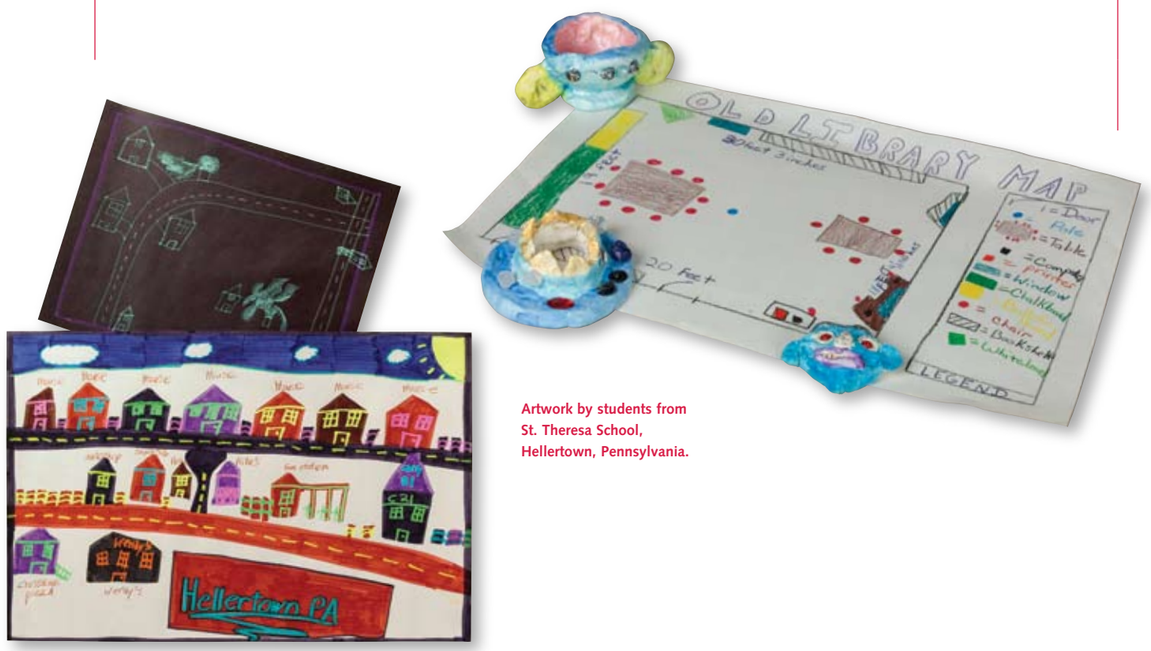
**Bird's eye view:** a view from above, as if one were flying over the object

**Cartography:** the art of creating maps

**Scale:** accurate proportions when drawing two or more objects

# Map Your Space

| | K-2 | 3-4 | 5-6 |
|---|---|---|---|
| **Suggested Preparation and Discussion** | Tour a construction site or building for which blueprints can be studied. Match details on the plans with the actual construction. Point out which blueprints represent a bird's-eye (overhead) view.<br>Take a concrete, visual tour of the classroom. Ask students to find forms, shapes, architectural details (doors, windows), and other features. Point out where items are located in relationship to one another.<br>Help children visualize the classroom from directly overhead by making block structures, models with cardboard boxes, or other 3-D representations that can be viewed from above. | Display various types of maps of your state—road maps, geologic surveys, relief, elevation.<br>Study map keys to determine what symbols and colors represent.<br>Locate your community on each map. Mark major cities, landmarks, industries, rivers, historic locations, and other important places. | Examine local, regional, and global maps, including artistic renderings and historical maps.<br>Explore concepts such as scale, estimation, dimensions, direction, and mapping symbols. Note that the dimension of the drawing is always listed first: 1 inch = 40 miles<br>Demonstrate and have students practice using graph paper to draw to scale. Start with a small, observable item such as an apple, to enlarge.<br>Then experiment with reducing the size of a familiar item, such as a car.<br>Ask children to choose a region of interest to them to map to scale. |
| **Crayola® Supplies** | • Colored Pencils • Gel Markers • Paint Brushes • Scissors • Tempera Paint | | |
| **Other Materials** | | | • Ruler • Graph paper |
| | • Craft paper • Oak tag • Recycled newspaper • Ribbon • Water containers • White paper | | |
| **Set-up/Tips** | • Cover painting surface with newspaper.<br>• Apply paint sparingly to keep paper from curling.<br>• Use an overhead projector or computer to demonstrate the process of enlarging or reducing to scale. | | |




Artwork by students from St. Theresa School, Hellertown, Pennsylvania.

| | K-2 | 3-4 | 5-6 |
|---|---|---|---|
| **Process: Session 1 20-30 min.** | **Decorate map back**<br>1. Cut craft paper into a size suitable for the map.<br>2. Decorate one side. Use designs such as lines, dots, shapes, and symbols common in blueprints or cartography. Air-dry the paint. | | |
| **Process: Session 2 15-20 min.** | **Sketch map**<br>3. On plain paper, sketch the classroom or your bedroom shape—from a bird's-eye view—to fill the map space. Include all walls.<br>4. Locate doors and windows. Mark placement of furniture. | **Sketch map**<br>3. On plain paper, sketch the borders of the state. Make it large enough to fill the map space.<br>4. Mark positions of geographic landmarks such as mountains, bodies of water, and cities. | **Sketch map**<br>3. Choose the scale for the map, making sure the map will fit on the craft paper. Sketch selected region on graph paper.<br>4. Mark positions of geographic landmarks such as mountains, bodies of water, state/province or national borders, and cities. |
| **Process: Session 3 20-30 min.** | **Draw map**<br>5. Using map draft as a guide, copy map on plain side of craft paper with Gel Markers. Use common symbols to indicate details.<br>6. Label important features.<br>7. Prepare a key to map symbols.<br>8. Roll map into cylinder. Tie ribbon around it. | | **Draw map**<br>5. With a ruler, mark a light grid on the plain side of the craft paper.<br>6. Translate region from smaller graph paper to larger map with Gel Markers.<br>7. Label important features.<br>8. Develop a key to map symbols including the scale. |
| **Assessment** | • Do maps accurately represent the classroom from an overhead perspective? Are all major features included? | • Do maps accurately represent the state?<br>• Are major landmarks included and labeled properly? | • How precise is the scale drawing of the region? Is the graph paper draft accurately enlarged on the final map? Is the scale indicated with the drawing measurement first? |
| | • Is back of map designed in an aesthetically pleasing way?<br>• Are map symbols and key easy to understand and accurate?<br>• Ask students to reflect on this lesson and write a DREAM statement to summarize the most important things they learned. | | |
| **Extensions** | Display maps of the school, neighborhood, city, and state. Locate the school and students' homes.<br>Study examples of different types of graphic representations of space such as weather maps, relief maps, and building models.<br>Draw series of ever-expanding views of the classroom—start with a small detail such as a desk and move out from it to encompass big picture.<br>Students with some types of disabilities may need to draw their maps with assistive technology. | Encourage students to share maps from places they have visited including museums, road, mass transit, topical, and imaginary maps. Identify locations with sticky dots.<br>Explore contour maps. Create a 3-D contour map (to scale for older and gifted students).<br>Discuss how and why maps distort distance, area, and shape. Compare the Peter's Projection with the Mercator Projection. | |

**Painted Map Design**
Artist unknown
Painted wood
Collection of Nancy A. De Bellis.