

PNL Lesson 1
INTRODUCING THE UNIT AND MENTAL MAPS
TEACHER INFORMATION

Lesson Summary: This activity introduces the essential question for the unit: “How do we know where we are?” and sets the stage for the unit through a mental map activity and class discussion.

Objectives: Students will understand that mental maps are “maps of the mind;” and that they are important tools because they are the maps that we think with.

Estimated Time: 45 minutes

Correlation to Alaska Standards:

Geography A Make and use maps, globes and graphs to gather, analyze, and report spatial (geographic) information.

BACKGROUND FOR THE TEACHER

When most of us think of finding our way or knowing where we are, we think of paper maps—the street, topographic and shaded relief maps of our classrooms, or the digital images so prominent on televisions and computers. But when it comes to knowing where you are in the world, we rarely think first of the maps we have in our heads; the mental maps that do the daily and unseen work of helping us know where we are.

Such mental maps are models in our mind—the images and memories of places and events that we carry in our heads. These models enable us to know quite well where we are or in what direction to go without consulting a physical map. We have mental maps of our room, the local store, our town, other places we have visited and even places we have never been to but about which we have acquired information. Mental maps are important geographic and cultural tools because they are one way that we make sense of the world. They help us store and recover information and connect with places, events, environments and people. They are the maps we think with.

Mental maps help individuals navigate but can also be shared with others to communicate the location of something: “It’s directly across the street from the general store.” This relational system works well as long as the landmark descriptions are distinct and sufficient for the listener to navigate. Landmarks can be as prominent a feature as a mountain or river, or as common as a stop sign or a building of particular color. Landmarks can also be places of historical, aesthetic or cultural importance.

It is important to think ahead of time about just how much guidance you want to provide students as they begin to sketch. Should the area they attempt to draw be limited to a small area or route (like school to home), a larger area like your community as a whole, or an even larger area such as home to a favorite camping spot? Or should there be no boundaries at all? In practice, we've found that an open-ended assignment often yields a thought-provoking array of sketches from those focused tightly on home to those inclusive of river drainages, but not everyone is comfortable with such an approach.

It is also important to note that when students sketch their mental maps, they are attempting to capture a rich, varied and multi-dimensional set of images on paper. Depending upon their drawing ability and their prior experience with maps, student sketches may or may not be accurate to scale, location and cardinal direction. That's okay. The point of this lesson is simply to help them become aware of their mental maps and to realize how valuable they are. As map work proceeds, their knowledge of place will change and they may want to re-draw their mental maps several times to reflect this evolving understanding.

MATERIALS

- Colored pencils
- Writing and drawing paper
- Erasers
- Tape

INSTRUCTIONAL PROCEDURES

Gear-Up

- Ask students: "How do you know where you are? If you were going from your bedroom to your neighbor's house, how would you find your way?" Ask them to picture the route in their mind and then listen as a few others explain their routes.
- Ask as many questions and do as much probing as necessary to get students discussing what they see in their mind. Don't accept "I just know" for an answer.
- Expand the distance of this imaginary trip to something a little more complicated but still within their reach (for example, from school to the store, to home and then home to church). Listen for landmarks, spatial references and descriptions. Then explain that geographers call these internal images "mental maps," and explain what a mental map is and why it's important.
- Explain that students will now get to draw their own mental map. Depending upon how much guidance you want to give, you might have them think about places they usually go, places where friends or relatives live, favorite places or places where they've camped, hunted, picked

berries or simply traveled to. How do they get to these places (roads, paths, trails, shortcuts)? What kinds of things do they see along the way? Suggest that they make a list of the places and things that they want to include on the map.

Explore

Provide each student with pencils, an eraser and drawing paper. Ask each one to draw a sketch of their mental map of the area including things that are important to them. (They might want to sketch it out a bit on small paper before using a larger sheet.) Explain that this is not about creating a beautiful map, but about trying to provide a glimpse of the maps they have in their heads.

Generalize

- Ask student volunteers to show their maps to the class (and tape maps to the wall next to one another for comparison in the next step).
- As students are sharing, start a large class list of landmarks used (houses, stop signs, streets, stores, mountains, rivers, etc.).
- After volunteers have shared their maps, guide students in a comparison of maps asking questions such as:
 - How are these maps alike (area and features shown, detail, spatial arrangement)?
 - How are these maps different?
 - What places were chosen most frequently as landmarks or references and why?
 - What might a map tell you about the person who drew it? Do they seem to have lived here a long time? Traveled a lot? Stayed close to home? Why do you think so?
- Reinforce the idea that we generally know where we are because we have mental maps to think and navigate, and that these mental maps are:
 - Formed from our experience
 - Contain useful geographic and cultural information
 - Needn't be standardized to be valuable.

Apply/Assess Options

Journal entry prompt: Think of someone you know who travels your area extensively for hunting, fishing, trapping, etc. What do you think their mental map might look like? What kinds of landmarks might they use? How might their map be different from yours and why do you think so?

MORE EXPLORATIONS

- Narrow or enlarge the mental map area (for example, the classroom, school yard, state of Alaska).
- Create a large, classroom mental map, including important landmarks that have been identified. (Note: classroom negotiation of a common map can be very interesting and also very time-consuming.)
- Provide time throughout the unit for students to enhance/change their sketch maps to reflect new understanding.
- Invite in a local expert who has traveled your area extensively to share his/her mental map and stories.

TEACHER REFERENCES

Rosenberg, Matt. "Mental Maps: How We See the World". Available online at:
<http://geography.about.com/cs/culturalgeography/a/mentalmaps.htm>