

Treasure Maps

In this activity, students get the opportunity to create maps of the classroom and a hidden treasure. After they've created their maps, children will test their communication abilities by giving the map to a friend who will try to navigate toward the hidden treasure.

What You Need:

for each student:

- paper
- writing utensils
- an object to hide as hidden treasure (they can probably choose something from their inside their desks)

for the class:

- for demonstration purposes, collect a number of different types of maps (road maps, maps of buildings, relief and topographical maps) to show students before they begin making their own maps



To Get Ready:

The only preparation required for this activity is the gathering of various types of maps.



To Start, Ask:

Have you ever navigated using a road map? Have you ever used a map to find your way around a building? Why do people create maps? What are the advantages of maps?

Now, Try It:

- Pass out the map collection and let students spend some time looking at different types of maps. Ask them to notice the differences between map types, and the different ways that roads, mountains and rivers are represented. Point out the legend (where symbols are defined), the scale (where the units of measurement are noted), and the grid (the pattern of lines, numbers, and letters which can help with location).

- Now that they are a bit more familiar with maps, students will begin making their own maps of their classroom.
- Introduce the idea of a treasure map (a map which helps someone else to find a hidden treasure), and the goal for this activity: *to create a treasure map of the classroom so that someone else can find your hidden treasure.*
- Ask students to start the activity by drawing a map of the classroom as it looks to a bird flying above or to a fly looking down from the ceiling. Encourage them to start by drawing the easily recognizable features of the room, as they would be seen from above. How does a desk look from above? What is the shape of the room? How does the door look if you are directly above it?
- Students may have trouble with the perspective of this activity. Help them by reminding them of their shoe drawings. When you look down on a shoe, you don't draw the sole of it, even though you know that it is there. When you look directly down on a chair, you don't draw the chair's legs, even though you know they are there.
- As they draw, encourage students to think about their map's legend, scale and grid.
- Once they've gotten a basic map image of the classroom, ask each student to choose something from his or her desk to hide (unless you've brought in some other treats for them to hide), and encourage them to think about where in the room they might actually hide the treasure.
- Add symbols to the map to indicate where the hidden treasure is located.
- When the map drawings are complete, ask the students to get together in pairs. One partner should wait outside in the hall, very briefly, while the other partner hides the treasure in the place noted on his or her own map.
- The missing partner can return to the room and use her partner's map to try to find the treasure. Once the first treasure has been found, switch and try again so that everyone gets a chance to be mapmaker and navigator.



Ask Students Again:

What was the hardest part about drawing your own map? What was the hardest part about using someone else's map? How were your maps similar to and different from the maps we looked at earlier today?

If You Want to Try More:

Encourage students to make maps of other places as well: a bedroom, the walk to school, the playground, their neighborhood. As they get more skilled at mapmaking, they can think more carefully about scale and precise measurements.

Scientist Spotlight:

Cartographers are mathematicians who make maps. As they create different maps, they must make choices about the function of the map and what types of information should be represented. They also choose symbols, scale, and the size of the map.

Geologists are scientists who study the structure and forms of rocks on the earth. As they work, they use and create maps to record the location, height, depth, and make-up of various landforms such as mountains, faults, glacial moraines, and underground rivers.



Assess What Happened

Add the treasure maps to students' field journals with a header page that says "Take a Look from Above." Also, using the Field Journal Entry sheet (on p. i), invite students to respond to the following question. Add this one to the scientific field journals also.

