

Island Maps

To continue in the map-drawing groove, this activity involves students in the creation of a map of a place larger than the classroom. As they think about what an island looks like from above, they'll also ponder how best to represent features such as rivers, hills and trees. The challenge of representing height and depth on a two-dimensional piece of paper will facilitate a new understanding of perspective.

What You Need:

for each student:

- paper
- crayons

for the class:

- for demonstration purposes, a topographical map or relief map

To Get Ready:

No preparation is required for this activity.



To Start, Ask:

Now that we've drawn a map of the classroom, let's think about maps of larger places. If you wanted to draw a map that showed mountains, how would you represent the height of the mountains? If you were in an airplane flying above the ground, what would a river look like?

Now, Try It:

- Invite the students to imagine an island in the middle of the ocean. Let them know, as they are imagining, that this island has at least one river, one hill, one tree, and at least one building.
- Ask your students to envision themselves in an airplane flying above this island. How does the river look from above? Is the hill near the river? Does the tree stand on its own or in a grove with many other trees? Is the building far enough away from the river to avoid flooding?
- Once they've gotten a clear vision of their imaginary island, pass out the paper and crayons, and ask students to create a map of this island. They should think carefully about how they'll represent the river, the hill, the tree, and the building.

- As they're working, remind students that a tree looks differently to a bird than it does to a person standing on the ground. Can a bird flying above actually see the trunk of the tree? How does a four-story building look different from a one story building?
- For those who finish early, encourage them to think about additional features which might be on an island map: the dock for boats, bushes and flowers, a store for provisions, roads for bikes or jeeps. Students might also want to add the legend and scale to this map.
- Save the maps for use in the next activity!

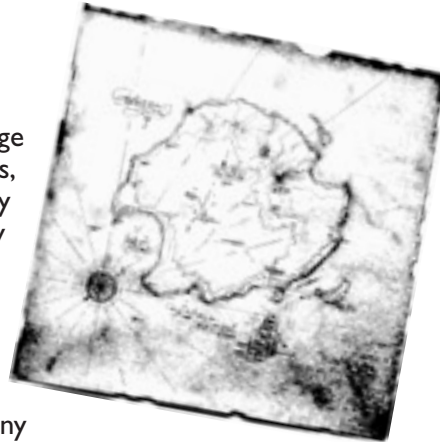


Ask Students Again:

What was the hardest part about representing a hill on your island map? If you were trying to draw the island from the point of view of a crab walking on the ocean floor below your island, what would you draw? How would the river look?

Scientist Spotlight:

Civil engineers create plans and drawings of large structural features like bridges, canals, highways, and buildings. Although they don't usually design islands, they do think carefully about the placement of structures in relation to each other, and how natural features, such as rivers, mountains, and slopes, will affect these structures. Like architects, civil engineers create scale drawings of their structures from many different perspectives.



Assess What Happened

Using the Field Journal Entry sheet (on p. i), invite students to respond to the following question.

If you were a civil engineer in your community, what natural features would you have to keep in mind as you designed structures? How would weather conditions in your community affect your plans?

