

Lesson plan

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Map Scale

Key point

- The scale of the map is the relationship between a distance on the map and actual distance on the ground.

Lesson objectives

- Students will learn about scale and what it does.
- Students will learn how to use the scale on a map to determine distance and to measure the size of objects.

Materials needed for this lesson

- Illustration 3, showing a map of the park.
- Paper and pencil.

Suggestions for teaching this lesson (35-minute lesson)

- Begin by asking the students if illustration 3 shows the park in its actual size. The answer, of course, is no. Explain that the size of the park and everything inside has been proportionately reduced to fit on this paper. To find out how much smaller this illustration or a map is than the actual area on the ground, we refer to the scale. The scale **on** a map is usually located in the legend.
- Continue the discussion by telling the students that the scale **of** a map is in proportion to the area it represents. In illustration 3 the proportion is 1 to 48. Tell the students this means that 1 inch on the map represents 48 inches on the ground.
- Point out the scale in the legend of the map (illustration 3). Students will see that the distance of 1 inch on the scale is marked as equaling 4 feet on the ground. [You may want to show the students that multiplying four (the number of feet) by twelve (the number of inches in a foot), equals forty-eight (inches).]
- Explain to the students that one reason people use maps is to find the distance between two places. Demonstrate how they can use the scale to measure the length of objects in the park and the distance between two points. Take a piece of paper and follow the path between two points, marking lines on the edge of the paper until you have marked the total distance. Take the paper and count how many times the scale will go along the marked line on the paper. Use repeated addition or multiplication to determine the distance.
- Have the students use the scale to determine the distance Nikki's mother would have to walk to get to the pasture where Nikki landed. Have Nikki's mother stand at different areas of the park and let the students develop a list of distances between these areas and the pasture. For example, how far is it from the south gate to the pasture? How far is it from the carousel to the pasture? How far is it from the bridge to the pasture?

Extended activities

- Select a few of the items found in the illustration. Have the students use the scale to determine the size of these features. Next, help them draw the outline of the selected features, at their actual size, on your school playground. You can use string, chalk or another material to mark the outlines.