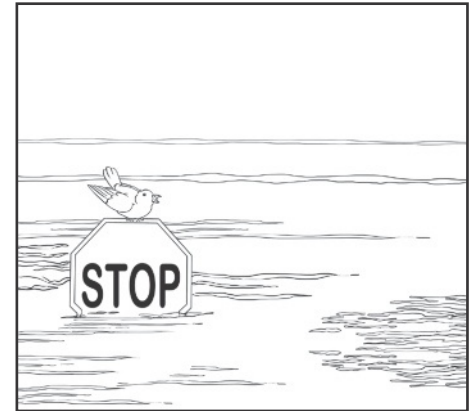


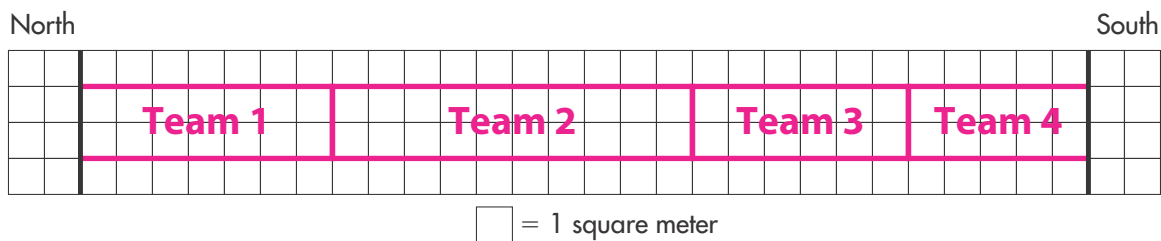
Floods

Did You Know? Floodwater only 2 feet deep can move a car! Rainstorms, hurricanes, and melting ice and snow can all cause flooding. Floods damage crops and harm plant and animal environments.

Floods can be beneficial too. Soil is improved by floodwaters. Better soil means new plants can grow. Floods can also wash away invasive weeds that harm an ecosystem.



Volunteers are using sandbags to build a levee along the side of a river. A levee can help control flooding. To make the building easier, the group splits the levee into parts.



- 1 Team 1 starts on the North side and builds a levee that is 2 meters high and 7 meters long. Draw the levee on the grid and find the area.

14 square meters

- 2 Team 2 builds their levee to the right of Team 1's levee. There is no space between the two levees. Team 2's levee is 2 meters high and 10 meters long. Draw the levee on the grid and find the area.

20 square meters

- 3 Team 3 and Team 4 finish the levee to the South side. The area of Team 3's levee is 12 square meters. The area of Team 4's levee is 10 square meters. Complete the drawing of Team 3's and Team 4's levees.

- 4 **Extension** Use the Distributive Property to find the total area of Team 1's and Team 2's levees.

$$\mathbf{34 \text{ square meters; } (2 \times 17) = 2 \times (7 + 10) = (2 \times 7) + (2 \times 10) = 14 + 20 = 34}$$