

Area Units

Sweeping Area

In this unit students will learn that area constitutes sweeping a horizontal length through a vertical length to cover the space to be measured.

You will need:

6 x 6 L-shaped Ruler Reproducible for Sweep Lesson

Paper plates

Sponges cut to 3 in size (make sure they are moist)

Finger paint

Spaghetti

Tape

- Give students the 6 x 6 L-shaped ruler paper and a sponge. Place a plate of paint at the table for students to share. Tell them to dip the sponge in the paint and make ONE sweep that is 3 inches by 4 inches. It is important that they get enough paint because they should only make one sweep.
- Then give students some dry spaghetti noodles and some tape and tell them to find the area of their figure. Remind them of the BIG IDEAS they learned in the hand lesson. They might use square inches, but you will have some students who use $\frac{1}{2}$ in squares, or don't do squares at all. You are hoping that some do this so you can have a discussion about why it is important for them to use same size units.
- Pick some that do a good job of finding the 12 square units and some that have some errors. Lead a discussion about the need for a common unit and how area is measured in square units, not rectangular ones.
- You can have them repeat the process again with new dimensions, such as 3 in x 6 in sweep to see if they can correct what they did in the first attempt. (Good opportunity for formative assessment)
- BIG IDEA: Area is a measurement of space covered when a length is swept through another length. (The formula for area may come out at this time)
- Give the formative assessment.