

Area Units

Comparing the Areas of Our Hands

In this lesson you ask students to compare the areas of their hands by tracing their hands and then using various materials to cover the area and determine whose hand is the biggest.

You will need:

Paper

Grid paper- cm and inch

Materials for students to use to cover their hand (these are just ideas, you just want some irregular size things) Some ideas are:

Popcorn kernels

Spaghetti

Pipe cleaners

Sequins

Snap cubes

Yarn

Two color counters

Beans

Buttons

Paper clips

- Students will decide how they want to trace their hand, open or closed (needs to be a class consensus), then find the area using any material that they want to use. (Hopefully someone will pick the graph paper.) Pick a few interesting ones that the students did to discuss in order to pull out the big ideas of area.
 - **Big ideas to pull out:**
 - Identical units- area must be measured with identical units.
 - Tiling- the units of area should tile the space to be measured.
 - Iteration- use the same unit over and over with no gaps or overlaps
 - Partial Units- partial units can be combined to make whole units
 - Common unit- in order to compare our hands, we need to have all used the same unit for the comparison to be valid.
- If no one uses the grid paper, ask how it could be used to compare the sizes of two students' hands.
- After discussion: have everyone use both the inch grid paper and the cm grid paper to trace their hands. Ask them to compare the two measures. Ask them why they got a bigger number with the cm than with the inch. BIG IDEA: The smaller the unit, the more iterations of the unit it will take.
- To wrap up, give the formative assessment.