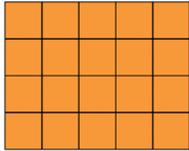


Activity 2 Assessment

Exploring the Relationships among Metric Units of Area

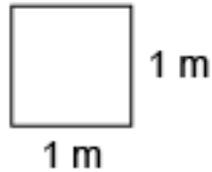
Relationships Among Standard Units of Area

Recognizes that area is measured using square units



"I covered the rectangle with square tiles and determined the area to be 20 square units."

Relates a centimetre/metre to a square centimetre/metre



"A square with side length 1 m has an area of 1 m²."

Expresses the relationship between square centimetres, square metres, and square kilometres

$$\begin{aligned} 1 \text{ m} &= 100 \text{ cm, so } 1 \text{ m}^2 = 100 \text{ cm} \times 100 \text{ cm} \\ &= 10\,000 \text{ cm}^2 \\ 1 \text{ km} &= 1000 \text{ m, so } 1 \text{ km}^2 = 1000 \text{ m} \times 1000 \text{ m} \\ &= 1\,000\,000 \text{ m}^2 \end{aligned}$$

Observations/Documentation

Activity 2 Assessment

Exploring the Relationships among Metric Units of Area

Relationships Among Standard Units of Area (cont'd)

Identifies which metric unit should be used to measure an area

The Classroom Floor

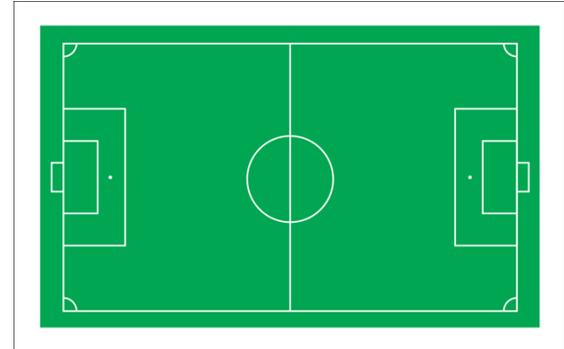
"I could use a metre stick to determine the length and width of the classroom.
So, I would use a square metre to measure the area of the floor."

Uses benchmarks to estimate area using metric units, then measures to check (square centimetre, square metre)

The Classroom Floor

"I visualize covering the classroom floor with about 50 tabletops, so I estimate its area to be about 50 m².
When I measured to check, the classroom was 8 m long and 6 m wide. So, the actual area is $8\text{ m} \times 6\text{ m} = 48\text{ m}^2$.
My estimate was close."

Flexibly chooses an appropriate metric unit to estimate and measure area and explains reasoning



"I'd estimate and measure the area of the soccer field in square metres. I could use square centimetres, but the number would be so large that it would be difficult to relate to."

Observations/Documentation