

Measurement Estimation Strategies

Purpose: Using mental and visual information to measure without the use of measurement tools. For example, we can estimate the length of a room or the weight of a watermelon in the grocery store.

Techniques:

- 1. Develop and use benchmarks for important units.** Using mental benchmarks or reference points for measurement promotes multiplicative reasoning.
*The width of the building is about one-fourth the length of a football field – about 25 yards.
My bed is about 7 feet long (benchmark), I could get about 3 beds in my bedroom, so this room must be about 21 feet wide.*
- 2. Use “chunking” when appropriate.** It might be easier to estimate the shorter chunks than to estimate the whole length as one.
I have 3 windows that are about 3 feet wide on a wall, with about another 3-4 feet left over, so my wall must be between 12-13 feet.
- 3. Use subdivisions.** A similar strategy to chunking, but with the chunks imposed on the object by the estimator. Length, volume and area measurements all lend themselves to this technique.
For example, if the wall has no useful chunks, it can be mentally divided in half and then fourths or even eighths until a more manageable length is arrived at.
- 4. Repeat a unit mentally or physically.** For length, area and volume, it is sometimes easy to mark off single units visually.
You might use your hands or make marks or folds to keep track as you go.