

## Solid Shapes

Leader



Patterns and a look at solid symmetry enhance students' ability to find volume and surface area of rectangular solids.



You will need:

- Sugar cubes or wooden blocks



Do this:

- Solve the problems by building, counting, and “guesstimating” the total number of cubes (cubic units) and squares (square units) that constitute the measures of *volume* and *surface area*, and by visualizing unseen surfaces in the pictorial or the material representation of solid shapes.



Student \_\_\_\_\_



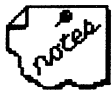
Do this:

- With your sugar cubes, build these solid geometric shapes below.
- Count the total number of cubes needed for each shape. Write the number as the measure of the volume of the shape.

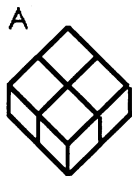


Volume is always measured in *cubic* units.

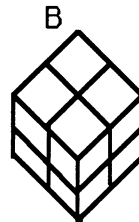
- Count the number of squares that cover the top, bottom, and all sides that make up the surface (area) of the shape.



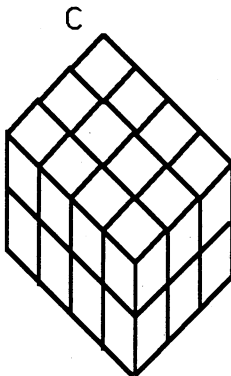
Area is always measured in *square* units.



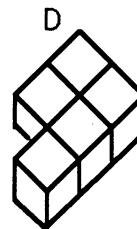
Volume = \_\_\_\_\_  
Surface area = \_\_\_\_\_



Volume = \_\_\_\_\_  
Surface area = \_\_\_\_\_



Volume = \_\_\_\_\_  
Surface area = \_\_\_\_\_



Volume = \_\_\_\_\_  
Surface area = \_\_\_\_\_



In what way is shape D not like shapes A, B, and C?



WHAT I FOUND