

# Area, Surface Area, or Volume

## Content Standards:

- Find the area of two-dimensional figures.
- Find the surface area and volume of solid figures.

## Task:

You must choose different objects and either find the area, surface area, or volume. You can find object in the classroom, school, at home, outside, etc. Choose the measurement that is most meaningful. After you find the area, surface area, or volume, explain what that measurement might be used for. For example, I found the volume of my fish tank. This is useful so I know how much water I need to put in the fish tank. Also, some types of fish need to live in a certain size tank.

You need to find the measurements of at least 5 different objects. You must find the area of one, the surface area of another, and the volume of a 3<sup>rd</sup> object. The other two objects are your choice. You must explain what the measure can be used for. Also, you must use at least 3 different kinds of solids. You can't keep using only one kind of solid.

## Criteria

- Students found the area, surface area, or volume of different solids
- Students explained why the measurement might be useful
- Students found each type of measurement at least once
- Student used at least 3 different kinds of solids

| Criteria                                     | POOR - 0                                        | SATISFACTORY - 1                                    | GREAT - 2                                         |
|----------------------------------------------|-------------------------------------------------|-----------------------------------------------------|---------------------------------------------------|
| OBJECT 1                                     |                                                 |                                                     |                                                   |
| Found area, surface area, or volume          | Found measurement incorrectly                   |                                                     | Found the correct measurement                     |
| Explanation of usefulness                    | No explanation of how measurement can be useful | Little explanation of how measurement can be useful | Good explanation of how measurement can be useful |
| OBJECT 2                                     |                                                 |                                                     |                                                   |
| Found area, surface area, or volume          | Found measurement incorrectly                   |                                                     | Found the correct measurement                     |
| Explanation of usefulness                    | No explanation of how measurement can be useful | Little explanation of how measurement can be useful | Good explanation of how measurement can be useful |
| OBJECT 3                                     |                                                 |                                                     |                                                   |
| Found area, surface area, or volume          | Found measurement incorrectly                   |                                                     | Found the correct measurement                     |
| Explanation of usefulness                    | No explanation of how measurement can be useful | Little explanation of how measurement can be useful | Good explanation of how measurement can be useful |
| OBJECT 4                                     |                                                 |                                                     |                                                   |
| Found area, surface area, or volume          | Found measurement incorrectly                   |                                                     | Found the correct measurement                     |
| Explanation of usefulness                    | No explanation of how measurement can be useful | Little explanation of how measurement can be useful | Good explanation of how measurement can be useful |
| OBJECT 5                                     |                                                 |                                                     |                                                   |
| Found area, surface area, or volume          | Found measurement incorrectly                   |                                                     | Found the correct measurement                     |
| Explanation of usefulness                    | No explanation of how measurement can be useful | Little explanation of how measurement can be useful | Good explanation of how measurement can be useful |
| Found each type of measurement at least once | No                                              |                                                     | Yes                                               |
| Used at least 3 different kinds of solids    | No                                              |                                                     | Yes                                               |

Total \_\_\_\_\_/24