Solid Shape Sort

Sort the solids, then explain how you knew for two figures.

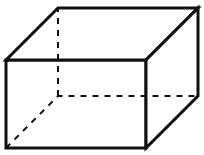
3.GM.1 "Analyze and use geometric attributes to describe and create polygons and three-dimensional figures in various contexts. Sort three-dimensional shapes based on attributes..."

NAME _____ DATE _____

FLAT FACES ONLY

Every part of this solid's surface is flat. It has no curved surface.

A brick.



HAS A CURVED SURFACE

At least one part of this solid's surface is curved. It may have flat faces, too.

Half of a ball.



1 SORT

8 items

Look at each figure and circle FLAT or CURVED.

1.

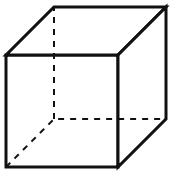


Figure 1

FLAT **CURVED**

2.

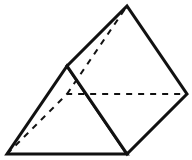


Figure 2

FLAT **CURVED**

3.

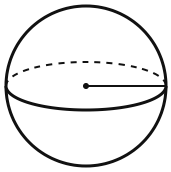


Figure 3

FLAT **CURVED**

4.

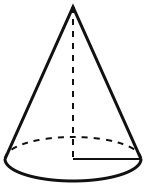


Figure 4

FLAT **CURVED**

5.

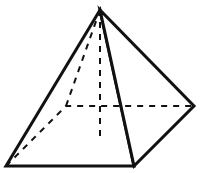


Figure 5

FLAT **CURVED**

6.

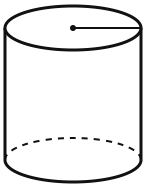


Figure 6

FLAT **CURVED**

7.

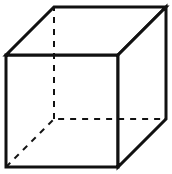


Figure 7

FLAT **CURVED**

8.

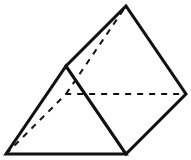


Figure 8

FLAT **CURVED**

2 PROVE IT

Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ **HOW I KNEW** _____

ITEM # _____ **HOW I KNEW** _____

3 MAKE YOUR OWN

One of each

Write one real-world object for each category: one that has only flat faces and one that has a curved surface.

FLAT _____

CURVED _____

CHALLENGE

Name a solid that has both a flat face and a curved surface. State its category and explain why.

ANSWER KEY # Solid Shape Sort

GRADE 3 · 3.GM.1

PART 1 · SORT

#	ITEM	CATEGORY	WHY
1	Figure 1 (cube)	**FLAT**	A cube has only flat faces.
2	Figure 2 (triangular_prism)	**FLAT**	A triangular prism has only flat faces.
3	Figure 3 (sphere)	**CURVED**	A sphere has a curved surface.
4	Figure 4 (cone)	**CURVED**	A cone has a curved surface, even though its base is flat.
5	Figure 5 (pyramid)	**FLAT**	A pyramid has only flat faces.
6	Figure 6 (cylinder)	**CURVED**	A cylinder has a curved surface, even though its ends are flat.
7	Figure 7 (cube)	**FLAT**	A cube has only flat faces.
8	Figure 8 (triangular_prism)	**FLAT**	A triangular prism has only flat faces.

PART 2 · PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 · MAKE YOUR OWN (SAMPLE ANSWERS)

- **FLAT**: A book has only flat faces.
- **CURVED**: A marble has a curved surface.

Challenge: A cone is CURVED because it has a curved surface, even though it also has a flat face.

For PROVE IT, have students pick two numbered figures and explain how they knew each category. Accept explanations that point to flat faces only or to at least one curved surface.