

Shape Detectives

Classify matter by how its shape behaves.

3.6.B “describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container;”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline the names of the solid, liquid, and gas samples. Write S, L, or G above each underlined name, then circle the sentences that tell what happens to each sample's shape.

Maya Tests Matter

- ① At the school picnic, Maya investigated matter, anything that takes up space. She placed a smooth pebble, a lump of modeling clay, and an empty metal spoon on a tray. Each sample was a solid. A solid has a definite shape. The pebble stayed round, the clay stayed lumpy, and the spoon stayed spoon-shaped when Maya moved them to a different tray.
- ② Next, Maya poured apple juice from a tall bottle into a wide bowl. The juice was a liquid. It did not keep the bottle's tall shape. In the bowl, the juice spread across the bottom and had the shape of the bowl. Maya could pour the same liquid into a cup, where it would take the cup's shape instead.
- ③ Finally, Maya trapped air in a small paper bag, then in a large paper bag. Air is a gas. In each bag, the air filled the space inside and took the shape of that bag. Gases do not have a definite shape. Air also spreads out to fill a room, but it is still matter even when you cannot see it.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Name the three solids Maya put on her tray.

2 What happened to the apple juice's shape when Maya poured it from the bottle into the bowl?

3 How did the air act in the small paper bag and the large paper bag?

4 Which type of matter has a definite shape? Which two types take the shape of their containers?

3 YOUR TURN _____ Your own words

Draw one solid, one liquid, and one gas in the three panels. Label each one, then write a sentence under each panel telling how its shape does or does not match its container.

PART 1 • READ AND MARK

Underline the names of the solid, liquid, and gas samples. Write S, L, or G above each underlined name, then circle the sentences that tell what happens to each sample's shape. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Name the three solids Maya put on her tray.	The smooth pebble, the lump of modeling clay, and the metal spoon.
2	What happened to the apple juice's shape when Maya poured it from the bottle into the bowl?	It did not keep the bottle's tall shape. It spread across the bottom and took the shape of the bowl.
3	How did the air act in the small paper bag and the large paper bag?	In each bag, the air filled the space inside and took the shape of that bag.
4	Which type of matter has a definite shape? Which two types take the shape of their containers?	Solids have a definite shape. Liquids and gases take the shape of their containers.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Panel 1: A coin on a plate, labeled solid. The coin keeps its round shape. Panel 2: Milk in a glass, labeled liquid. The milk takes the shape of the glass. Panel 3: Air in a balloon, labeled gas. The air takes the shape of the balloon.

Accept the stated passage evidence or equivalent wording for Questions 2 through 4. For the open task, accept accurate examples that are correctly classified and correctly describe that solids keep a definite shape while liquids and gases take the shape of their containers.