

Nova's Guide to States of Matter

Learning objective: To identify and describe the three states of matter: solids, liquids, and gases.

Read the text carefully. Then, answer the questions below. Use the word bank if you need help with spelling.

Nova the owl loves to explore the world of science. Today, Nova is looking at the three states of matter. Everything around us is made of tiny particles. These particles act in different ways. Solids, like a wooden block or a rock, keep their own shape. Their particles are held tightly together. Liquids, like water or juice, do not have a fixed shape. They can flow and take the shape of their container. If you pour water into a cup, it fills the bottom. Finally, there are gases. Air is a gas that we cannot always see. The particles in a gas move very fast and spread out to fill all the space available. Nova likes to watch steam rise from a hot mug of cocoa. The steam is a gas changing from a hot liquid. Whether it is a solid, a liquid, or a gas, everything is special. Nova says science is like a big puzzle waiting to be solved!

Word bank: solid · liquid · gas · shape · flow · particles

1. According to the text, what happens to the shape of a liquid when you pour it into a container? (2 marks)

2. Name one example of a solid mentioned by Nova in the passage. (1 mark)

3. Why do you think gas particles move differently than solid particles? (2 marks)

4. If you had a balloon, what state of matter do you think is inside it? Explain why. (2 marks)

5. Nova says that science is like a big puzzle. Do you agree with Nova? Why? (2 marks)

Draw: Draw a picture showing three boxes. In the first, draw a solid (like a rock). In the second, draw a liquid (like water in a glass). In the third, draw a gas (like steam or a balloon).

A large, empty rectangular box with a thin black border, intended for a student to draw three boxes representing different states of matter: a solid, a liquid, and a gas.

Extension challenge: Can you find three things in your classroom that are solids and two things that are liquids? Write a list of them.