

Matter Change Watch

Read for clues about matter and phase changes.

2.3 "The student will investigate and understand that matter can exist in different phases. Key ideas include matter has mass and takes up space; solids, liquids, and gases have different characteristics..."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline the two sentences that tell why something is matter, circle the words that name the three phases, and box each word that tells about heating or cooling.

Matter All Around

- ① Everything around you is matter, including a pebble, juice, and air in a balloon. Matter has mass, so it can be weighed. Matter also takes up space. A filled balloon takes up more space than an unfilled balloon.
- ② A solid, such as a block, keeps its own shape. A liquid, such as milk, can be poured and takes the shape of its container. A gas, such as air, spreads out and fills all the space it can.
- ③ Heat can change some matter. When ice is warmed, it melts into liquid water. When liquid water is cooled enough, it freezes into ice. Water can also become water vapor when heated. Cooling water vapor can make liquid water.

2 ANSWER WITH EVIDENCE Use the passage

1 What two facts can you use to tell that something is matter?

2 How does a solid act differently from a liquid and a gas?

3 A puddle cools enough to become ice. What change happened, and what caused it?

3 YOUR TURN Your own words

In the three panels, draw a piece of chocolate before heating, after heating, and after it cools. Label each panel solid or liquid, then write one sentence that tells how heating and cooling changed the chocolate.

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PART 1 • READ AND MARK

Underline the two sentences that tell why something is matter, circle the words that name the three phases, and box each word that tells about heating or cooling. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What two facts can you use to tell that something is matter?	Matter has mass and takes up space.
2	How does a solid act differently from a liquid and a gas?	A solid keeps its own shape. A liquid takes the shape of its container. A gas spreads out and fills the space it can.
3	A puddle cools enough to become ice. What change happened, and what caused it?	The liquid water froze into solid ice because it was cooled.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Panel 1: solid chocolate. Panel 2: liquid chocolate. Panel 3: solid chocolate. Heating melts chocolate, and cooling makes it solid again.

Accept equivalent descriptions of mass, space, phase characteristics, and phase changes. For the panel task, accept any accurate solid-to-liquid change caused by heating and liquid-to-solid change caused by cooling.