

States of Matter

Week 6 — Wednesday | States of Matter Experiment

Remember: Three States of Matter

Solids keep their shape. They do not flow or change shape on their own. A rock, a book, and an ice cube are all solids.

Liquids flow and take the shape of their container. Water, milk, and juice are all liquids.

Gases spread out to fill all available space. Air, steam, and the helium in a balloon are all gases.

Today's Experiment: Ice Cube Investigation

Materials: ice cubes, a clear plastic cup, a bowl of warm water

Step 1: Place an ice cube on a plate. Observe it for 2 minutes. Is it a solid, liquid, or gas?

Step 2: Put the ice cube in the clear cup. Watch what happens over 10 minutes.

Step 3: Place one ice cube in warm water and one on a plate. Which melts faster?

Step 4: Record your observations in the chart below.

Observation Chart

Time	What does the ice look like?	State of Matter (S/L/G)
Start (0 min)		
5 minutes		
10 minutes		
15 minutes		

Experiment Questions

1. What happened to the ice cube over time?
2. What state of matter was the ice at the start? What state was it at the end?
3. Which ice cube melted faster — the one in warm water or the one on the plate?
4. What caused the ice to change from a solid to a liquid?

Draw Your Experiment

Draw the ice cube at the beginning and end of the experiment.

Before (Solid)

After (Liquid)

Sorting Challenge

Sort these items by state of matter: water, apple, helium, milk, chair, steam, rock, orange juice, sand, smoke

Item	Solid	Liquid	Gas
Water			
Apple			
Helium			
Milk			
Chair			
Steam			
Rock			
Orange juice			
Sand			
Smoke			

New Vocabulary

Write a definition or draw a picture for each word.

Melt

Solid

Liquid

Evaporate

Think About It

1. Why does ice melt faster in warm water than on a plate?

2. Have you ever seen water change from a liquid to a gas? How did it happen?

3. Can you think of something that can be a solid, liquid, AND gas? Explain.

True or False

- ☐ 1. Solids keep their shape.
- ☐ 2. Liquids take the shape of their container.
- ☐ 3. Gases are always visible.
- ☐ 4. Ice is a liquid form of water.
- ☐ 5. Heat can cause a solid to melt into a liquid.

Fill in the Blanks

Word Bank:

solid liquid gas melts container shape

- 1. Ice is a _____.
- 2. When ice gets warm, it _____ into a _____.
- 3. A _____ takes the shape of its _____.
- 4. A _____ spreads out to fill all available space.

Home Challenge

Look in your refrigerator and kitchen. Find **one example** of each state of matter:

State	Where did you find it?	Name of the item
Solid		
Liquid		
Gas		