Solids, liquids and gases

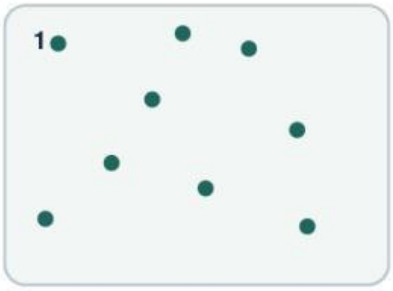
Use properties and particle models to identify each state.

Name _____ Date _____

A. Read the particle models

Each dot represents a particle. Label each model solid, liquid or gas.

1



2



3



_____ _____ _____

B. Sort the examples

Write solid, liquid or gas beside each example.

1. A pencil _____
2. Air inside a balloon _____
3. Cooking oil _____
4. An ice cube _____
5. Water vapor _____
6. Juice _____

C. Explain your thinking

1. Which state keeps its own shape? Use one example.

_____

_____

2. What happens to the shape of juice when you pour it into a bowl?

_____

_____

_____

LIVEWORKSHEETS

How matter changes

Identify what happens when matter gains or loses thermal energy.

Name _____ Date _____

A. Complete the changes

Use each term once. Then circle gains or loses in each row.

melting / **evaporation** / **condensation** / **solidification**

Change of state	Name of change	Thermal energy
Solid to liquid	_____	gains / loses
Gas to liquid	_____	gains / loses
Liquid to solid	_____	gains / loses
Liquid to gas at the surface	_____	gains / loses

When liquid water solidifies, we also say it freezes.

B. Name the change in each example

1. An ice cube turns into a puddle on a plate.

_____

2. A wet shirt dries on a clothesline.

_____

3. Water droplets form on the outside of a cold glass.

_____

4. Water in an ice tray becomes ice.

_____

LIVEWORKSHEETS

Follow the water

Use the four changes of state to explain an ice cube's journey.

Name _____ Date _____

A. Track the changes

For each step, write the change and the state of the water afterward.

1. An ice cube in a dish turns into liquid water.

   Change _____ State afterward _____

2. Some water in the dish becomes water vapor in the air.

   Change _____ State afterward _____

3. Some of that vapor touches a cold lid and forms droplets.

   Change _____ State afterward _____

4. The droplets are collected and put in a freezer until they turn to ice.

   Change _____ State afterward _____

B. Think like a scientist

1. A sealed bottle is cold and dry. Later, drops appear on the outside.
   Where did the water come from? What change took place?

_____

_____

2. Two identical wet cloths are hung up. One is in a warm room and the other in a cool room. All other conditions are the same.
   Which cloth will likely dry first? Explain why.

_____

_____

_____

LIVEWORKSHEETS