Predict–Observe–Explain (POE) Activity Worksheet

Changes in State of Matter Due to Temperature

Name: _____
Grade & Section: _____
Date: _____

Title: Melting and Evaporation

Learning Target

Describe how changes in temperature cause matter to change in state, such as solid to liquid to gas.

Materials

- Ice cubes
- Small bowl or cup
- Warm water
- Spoon
- Teacher demonstration of boiling water (optional)

Part 1 – PREDICT

Question: What do you think will happen to the ice cube when it is placed in warm water?

_____

_____

Draw your prediction:

Prediction Drawing

Part 2 – OBSERVE

What happened to the ice cube?

☐ The ice stayed hard.

☐ The ice melted into liquid water.

☐ The water disappeared.

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What happened when the water became hotter?

☐ Nothing changed.

☐ Steam or water vapor appeared.

☐ The water turned solid again.

Write your observations:

_____

_____

_____

Draw what you observed:

Observation Drawing

Part 3 – EXPLAIN

Why did the ice change from solid to liquid?

_____

_____

Why did the liquid water change into gas or steam?

_____

_____

Complete the Sentences

1. When temperature increases, ice changes from a _____ to a _____.

2. When water gets very hot, it changes from a _____ to a _____.

3. Heat can cause matter to change its _____.

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States of Matter Table

State of Matter	Example	Shape
Solid	_____	Fixed
Liquid	_____	Takes the shape of container
Gas	_____	No fixed shape

Reflection

What did you learn about temperature and matter?

_____

_____

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