PHYSICAL CHANGES

Read – Understand – Apply!

Name : _____
Class : _____
Date : _____

1 WHAT IS A PHYSICAL CHANGE?

A physical change is a change that affects the shape, size, or state of matter of a substance.

No new substance is formed.

The substance remains the same.

Example: Ice melting into water, paper cut into pieces, water freezing into ice.

2 CHARACTERISTICS OF PHYSICAL CHANGE

1. **No new substance is formed.**
   The substance remains the same.
   Example: Ice → Water

2. **Only physical properties change.**
   Shape, size, form, or state of matter may change.
   Example: Paper → Pieces of paper

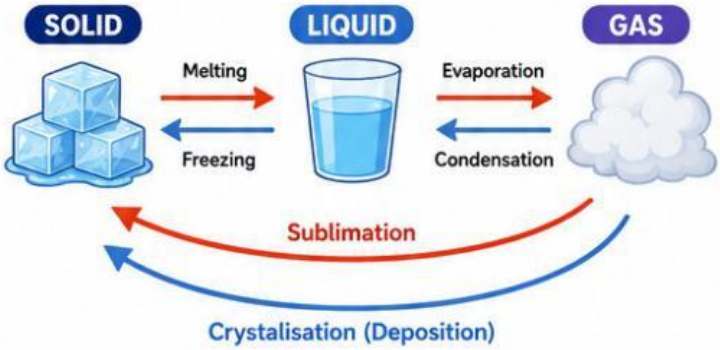
3. **Some physical changes are reversible.**
   The change can be changed back to the original form.
   Example: Ice → Water → Ice

3 EXAMPLES: PHYSICAL CHANGE OR NOT?

Tick (✓) the correct column!

EVENT	PHYSICAL CHANGE	NOT A PHYSICAL CHANGE
Ice melts	☐	☐
Paper is cut	☐	☐
Water evaporates	☐	☐
A glass is broken	☐	☐
Wood is burned	☐	☐
Water freezes	☐	☐
An egg is cooked	☐	☐
A can is crushed	☐	☐

4 THE SIX CHANGES OF STATE OF MATTER



5 MATCH THE PROCESS WITH THE CORRECT EXAMPLE!

Write the correct letter (A–F) for each process.

1. Melting ☐
2. Freezing ☐
3. Evaporation ☐
4. Condensation ☐
5. Sublimation ☐
6. Crystalisation (Deposition) ☐

6 COMPLETE THE TABLE!

Fill in the correct state of matter and whether heat is gained or lost.

PROCESS	FROM	TO	HEAT GAINED / LOST
Melting	Solid	_____	_____
Freezing	_____	Solid	_____
Evaporation	Liquid	_____	_____
Condensation	_____	Liquid	_____
Sublimation	Solid	_____	_____
Crystalisation (Deposition)	_____	Solid	_____

7 THINK LIKE A SCIENTIST!

1. You put ice in a cup and leave it on the table. After a while, the ice becomes water.

   a. What process happened? _____
   b. State change: _____ → _____
   c. Is this a physical change? Why? _____
   _____

2. You take a cold drink from the refrigerator. Water drops appear on the outside of the can.

   a. What process happened? _____
   b. State change: _____ → _____

REMEMBER: Physical change changes the form of a substance, but no new substance is formed.

LIVEWORKSHEETS

CHEMICAL CHANGE

READ • OBSERVE • THINK!

Name : _____

Class : _____

Date : _____

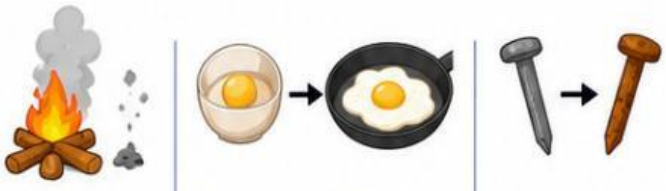
1 WHAT IS A CHEMICAL CHANGE?

A chemical change is a change that produces one or more **NEW SUBSTANCES.**

The new substance has different properties from the original substance.

REMEMBER!

Chemical Change = New Substance Formed!



Wood	Raw egg	Cooked egg	Iron
Ash and smoke		Cooked egg	Rust

2 CHARACTERISTICS OF CHEMICAL CHANGE

1 A NEW SUBSTANCE IS FORMED
The original substance changes into a different substance.
Example: Iron → Rust

2 COLOR MAY CHANGE
A substance may change color during a chemical change.
Example: Iron → reddish-brown rust

3 GAS MAY BE PRODUCED
Some chemical changes produce gas.
Example: A reaction may create bubbles or gas.

4 ENERGY MAY CHANGE
A chemical change may release or absorb energy.
Example: Burning wood produces heat and light.

3 WHICH ONES ARE CHEMICAL CHANGES?

Put a ✓ in the correct box!

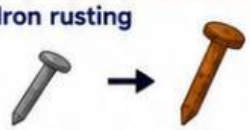
EVENT	CHEMICAL CHANGE	NOT A CHEMICAL CHANGE
Ice melts	☐	☐
Wood burns	☐	☐
Paper is cut	☐	☐
Iron rusts	☐	☐

EVENT	CHEMICAL CHANGE	NOT A CHEMICAL CHANGE
An egg is cooked	☐	☐
Water freezes	☐	☐
A banana turns brown	☐	☐
A can is crushed	☐	☐

4 SPOT THE EVIDENCE!

Look at each event. What sign of chemical change can you observe? Tick (✓) all that apply!

A Iron rusting



- ☐ New substance formed
- ☐ Color change
- ☐ Gas produced
- ☐ Heat or light produced

B Wood burning

- ☐ New substance formed
- ☐ Color change
- ☐ Gas or smoke produced
- ☐ Heat or light produced

C Cooking an egg

- ☐ New substance formed
- ☐ Color or texture changes
- ☐ Gas produced
- ☐ The change is difficult to reverse

FINAL MISSION!

A chemical change happens when a _____ _____ is formed.

Give one example of a chemical change:

_____

Why is it a chemical change?

_____

_____

REMEMBER!

PHYSICAL CHANGE

Same substance → Different form

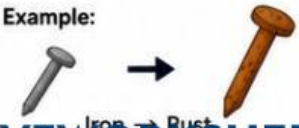
Example:

Ice → Water

CHEMICAL CHANGE

Original substance → New substance

Example:



Iron → Rust

LIVEWORKSHEET