

The Primary Stage of Grades (4-5) School Year 2022 - 2023

Name: Key

Unit (6): Physical and Chemical Changes Worksheet (2)

Date: / /

Objective:

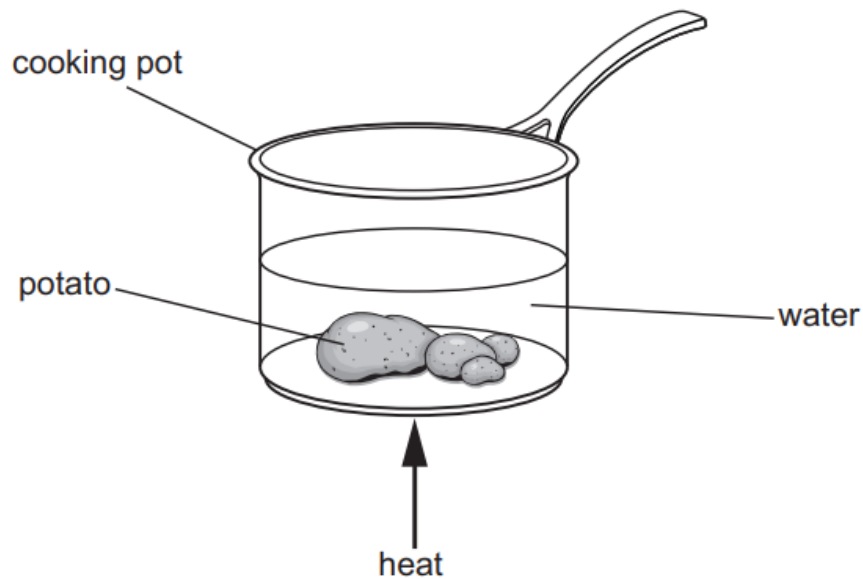
- Differentiate between physical and chemical changes.
- Classify different changes into reversible and irreversible changes.

Question 1: Classify the following changes into physical or chemical changes, then tell whether this change is reversible or irreversible change.

	Change	Physical/ Chemical Change	Reversible/ Irreversible
1.	An egg being fried.	Chemical	Irreversible
2.	Water being frozen to make ice cubes.	Physical	Reversible
3.	Burning wood in a fire.	Chemical	Irreversible
4.	Dissolving salt in water.	Physical	Reversible
5.	Mixing cement with water.	Chemical	Irreversible
6.	Adding Bicarbonate of soda to vinegar.	Chemical	Irreversible
7.	Attracting an iron nail by a magnet.	Physical	Reversible
8.	Adding yeast to flour and water to make dough.	Chemical	Irreversible
9.	Baking a loaf of bread.	Chemical	Irreversible
10.	Folding a piece of paper.	Physical	Reversible
11.	A gate being rusty.	Chemical	Irreversible
12.	Water vapor condensing into liquid water.	Physical	Reversible
13.	A seed germinating and growing into a plant.	Chemical	Irreversible
14.	Breaking glass.	Physical	Irreversible

Question 3:

Anastasia cooks potatoes in hot water.



She puts the cooking pot over a flame and heats the water for 25 minutes.

(a) What happens to water when it is boiling?

Water changes from liquid to gas.

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(b) Explain why boiling water is a **reversible** change.

We can change the steam into liquid again by condensation.

.....

.....

(c) Explain why cooking a potato is an **irreversible** change.

Because you cannot uncook the potatoes back into its original form.

.....

.....

(d) Suggest a material that **the handle of the pot** can be made of?

..... **Plastic/ wood.**

(e) Suggest a material that **the pot** can be made of?

..... **Steel.**

.....

Question 4:

The students are putting different materials into water.

They used one spoonful of each substance and stirred it well. Then they left the mixtures for 2 minutes.

This is what they observed.

	<i>Material A - a white powder</i>
	<i>It disappeared as we stirred it. There was nothing there when we checked it.</i>
	<i>Material B - brown crystals</i>
	<i>It moved about as we stirred it but sank to the bottom when we left it.</i>
	<i>Material C - a white powder</i>
	<i>It fizzed and bubbled when we first put it in and then disappeared.</i>
	<i>Material D - blue crystals</i>
	<i>The solid disappeared as we stirred but then the water turned blue.</i>

(a) (i) Write down the letters of the materials which did not dissolve.

Material B.

[1]

(b) What happens to the solid when a soluble material is added to water?
Tick (✓) **one** box.

The material is still there but cannot be seen.

The water soaks up the solid.

The solid disappears into the air.

The solid melts in the water.

(c) Which material cannot be got back?
Tick (✓) **one** box.

Material A

Material B

Material C

Material D

- A **chemical change** has happened when this material was added to water.

What is the evidence?

Gas Production (bubbles).

.....

d) What is smoke? Tick (✓) **one** box.

Gases made by melting.

Liquid from evaporation.

New materials made by burning.

Solids made from condensation.

