

**WORKSHEET 18**School: Ba Sangam CollegeYear/level: 10Subject: Basic Science

NAME: _____

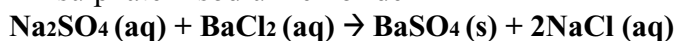
Strand	2	Matter
Sub Strand	2.3	Reactions
Content Learning Outcome	Investigate the different types of chemical reactions and discuss the factors that affect the rates of reactions.	

Lesson Notes –Types of Chemical Reactions**2.Precipitation (also known as double replacement)**

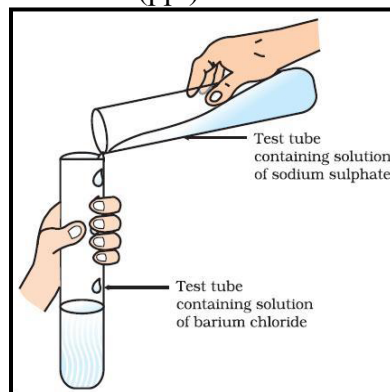
-Two solution is mixed

-Insoluble (precipitate) forms as one of the products e.g sodium sulphate solution is mixed with 3ml of barium chloride solution

-A white precipitate of Barium Sulphate is formed barium chloride +sodium sulphate → barium sulphate + sodium chloride



Sodium sulphate + Barium chloride → Barium sulphate + Sodium chloride
(ppt)

**3.Synthesis (also known as combination reaction)**

• A synthesis reaction is one where two substances combine to make a new substance. It can be shown in an equation such that: **A + B AB**.

• The properties of the reactants are different from the properties of the compound formed.

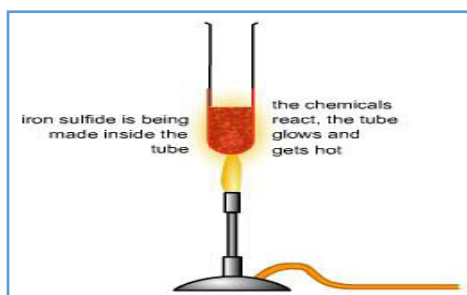


Iron +Sulphur → Iron sulphide

(grey)

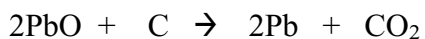
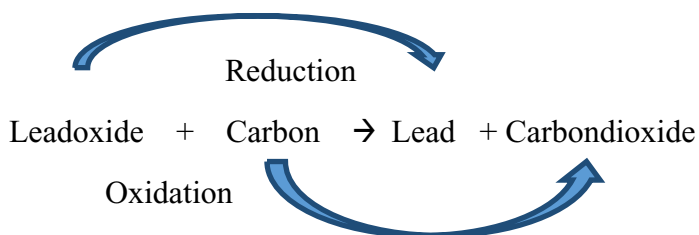
(yellow)

(black residue)



4. Oxidation and Reduction (REDOX)

- Oxidation- where an element gains oxygen e.g $4\text{Fe} + 3\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3$
- Reduction-when a substance loses oxygen e.g mercury oxide when heated decomposes to form Mercury and Oxygen e.g $2\text{HgO} \rightarrow 2\text{Hg} + \text{O}_2$



Activity

1. Describe what happens in precipitation reaction?

(2 marks)

2. Give an example of a precipitation reaction

(1 mark)

3. Explain synthesis reaction using an example.

(2 marks)
