

LESSON NOTES

Year/Level: 11 C/D

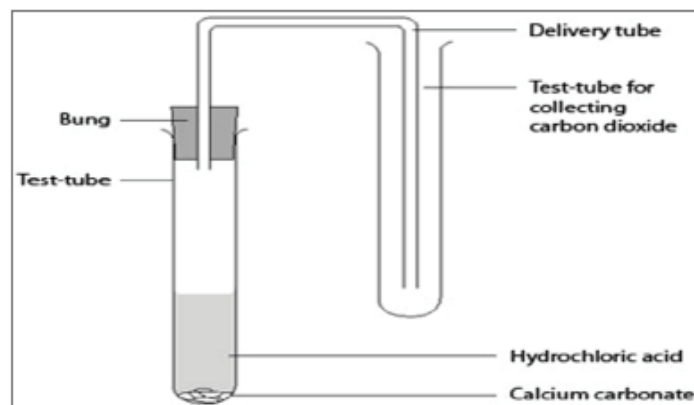
Week 11

Subject: Chemistry

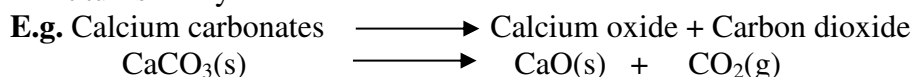
Strand	3 Reactions
Sub Strand	3.2 types of reactions
Content Learning Outcome	Distinguish and describe different types of reactions based on chemical statements and balanced chemical equations

**DECOMPOSITION**

- Some carbonates and nitrates are decomposed by heat.
- Carbonates are decomposed to form carbon dioxide and the oxide of the metal.
- The set up below shows the laboratory preparation of carbon dioxide by the decomposition of marble chips,  $\text{CaCO}_3$ .



- The presence of the carbon dioxide formed can be tested by passing it through lime water, it turns milky

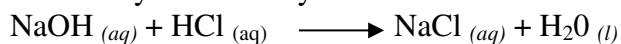


**NEUTRALISATION**

- In a neutralisation reaction, acids react with bases to form salt and water
- The reaction is also known as the acid-base reaction.

**Example**

Sodium hydroxide + hydrochloric acid  $\longrightarrow$  Sodium chloride + Water

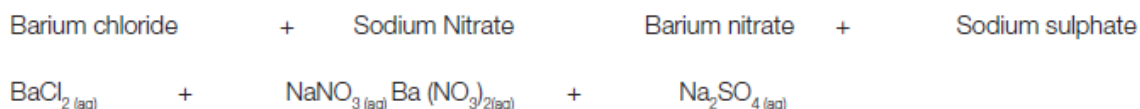


## **DOUBLE DISPLACEMENT**

When two different salt solutions react forming a clear solution. The resultant salts formed are both soluble in water.

It is termed double displacement as the anions are exchanged between the two cations.

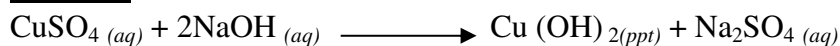
### **Example**



## **PRECIPITATION**

- It is the formation of an insoluble salt from the mixture of two different clear solutions
- The insoluble salt formed is the precipitate (ppt)

### **Example**



## **ACTIVITY:**

1. For each reaction below:

- i. Write a balanced equation.
- ii. Classify the type of reaction and give a reason for your choice.

a. Precipitation of silver chloride by reacting barium chloride with silver nitrate.

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b. Release of carbon dioxide by reacting sodium carbonate with dilute sulphuric acid.

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c. Copper metal formed as iron is placed into a test tube containing copper sulphate solution

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