



Acids & Bases

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CHEMICAL REACTION OF ACIDS AND BASES

-  REACTION WITH METALS
-  REACTION WITH METAL CARBONATE
-  REACTION WITH METAL HYDROGEN CARBONATE
-  REACTION WITH METALLIC OXIDES
-  REACTION WITH NON-METALLIC OXIDES
-  REACTION WITH EACH OTHER.

Acids and Metal Carbonates

When a metal carbonate reacts with an acid, the products are a salt, carbon dioxide and water.

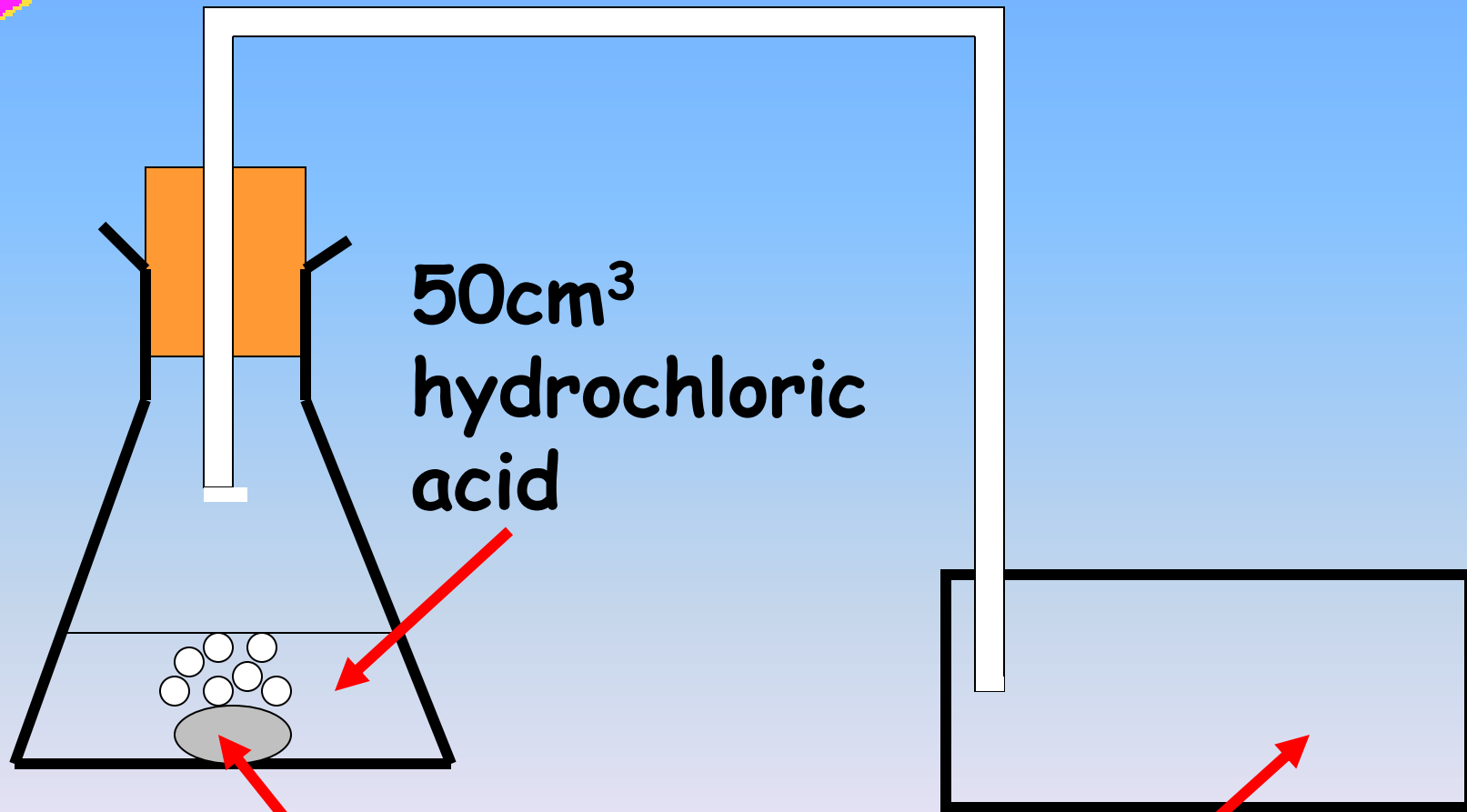


The salt produced depends on the metal carbonate and type of acid involved in the reaction:

- When a metal carbonate reacts with **hydrochloric acid**, the salt produced is a **metal chloride**.
- When a metal carbonate reacts with **sulfuric acid**, the salt produced is a **metal sulfate**.
- When a metal carbonate reacts with **nitric acid**, the salt produced is a **metal nitrate**.

Complete the following equations

- Metal carbonate + Acid →
- Magnesium Carbonate + Nitric acid →
- Zinc Carbonate + Hydrochloric acid →
- Sodium Carbonate + Sulphuric acid →



50cm³
hydrochloric
acid

Metal Carbonate

Lime water

Practical Activity

EXPERIMENT-

Add metal carbonate to acid and collect the gas that comes off. Test the gas. Write what you observe

We will conduct a test for carbon dioxide gas (lime water test)



ON PASSING THE CARBON DIOXIDE GAS THROUGH LIME WATER , IT TURNS CLOUDY.

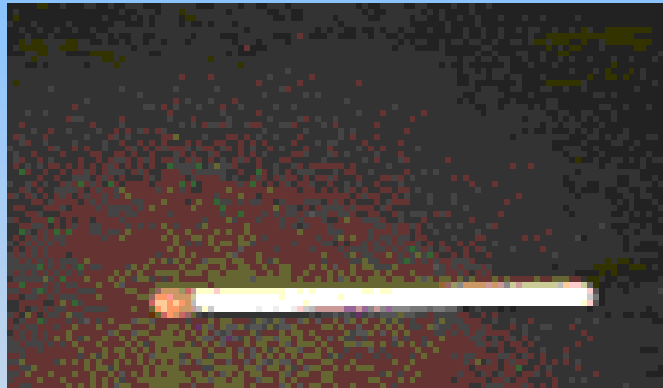
**ON PASSING EXCESS CARBON DIOXIDE ,
FOLLOWING REACTION TAKES PLACE:**



**LIMESTONE , CHALK AND MARBLE ARE
DIFFERENT FORMS OF CALCIUM CARBONATE.**

Testing Carbon Dioxide

It puts out a lit spill.



It turns limewater cloudy.

Complete these word equations

sodium carbonate + **A** → sodium nitrate + **B** + water

C + nitric acid → calcium nitrate + carbon dioxide + water

zinc carbonate + sulfuric acid → **D** + **E** + **F**

calcium carbonate

?

C

solve

