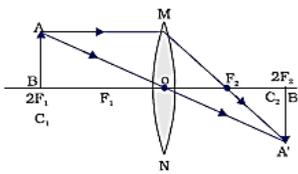
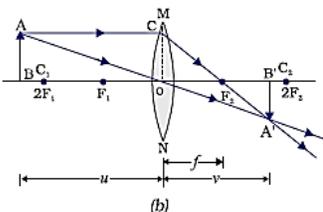


LIGHT- REFLECTION AND REFRACTION

1. Draw the ray diagrams of image formed when the object is placed in front of a bi-convex lens in the following positions.

(a) Beyond $2F_1$

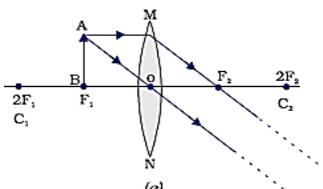
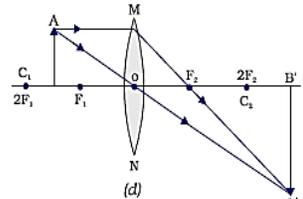
(b) At $2F_1$



2. Draw the ray diagrams of image formed when the object is placed in front of a bi-convex lens in the following positions.

(a) Between F_1 and $2F_1$

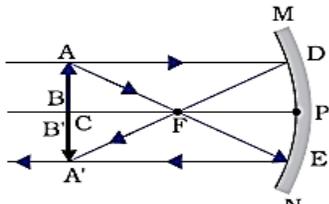
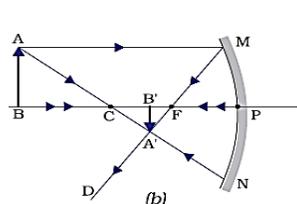
(b) At F_1



3. Draw the ray diagrams of image formed when the object is placed in front of a concave mirror in the following positions.

(a) Beyond C

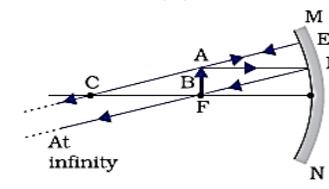
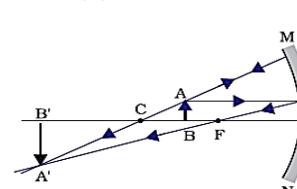
(b) At C



4. Draw the ray diagrams of image formed when the object is placed in front of a concave mirror in the following positions.

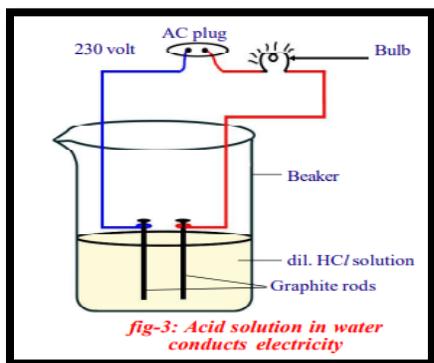
(a) Between C and F

(b) At F

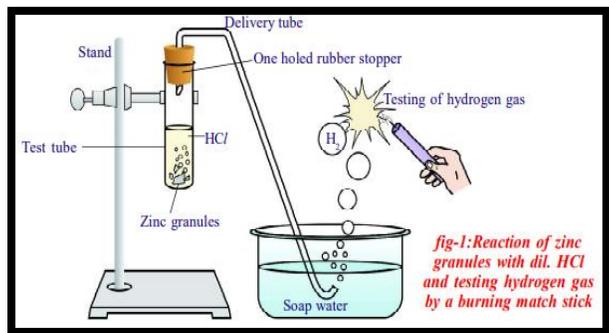


ACIDS, BASES AND SALTS

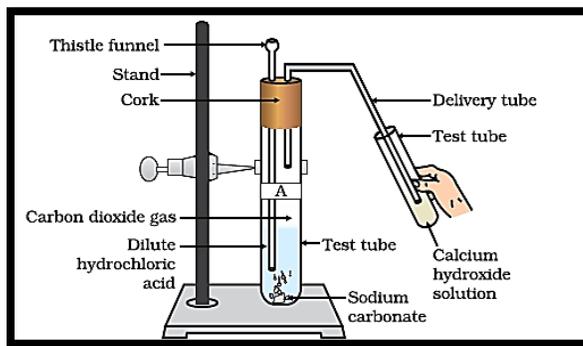
1. Draw the diagram which shows that acid solution in water conducts electricity.



2. Draw a diagram of arrangement of apparatus for the reaction of acids with metals

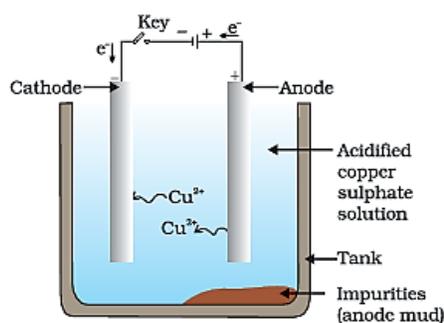


3. Draw a diagram of passing carbon dioxide gas through calcium hydroxide solution when metal carbonates or metal hydrogen carbonates react with acids.

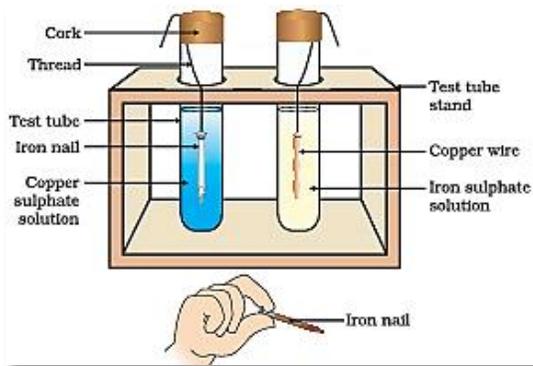


METALS AND NON-METALS

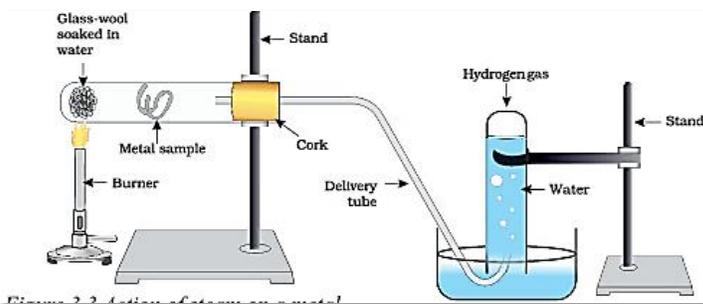
1. Draw a neat diagram to show the electrolytic refining of copper.



2. Draw a neat diagram to show that high reactive metals displace low reactive metals from their compounds.



3. Draw a neat diagram to show the action of steam on a metal (or) draw a neat diagram to show the metal reacts with water.



ELECTRICITY

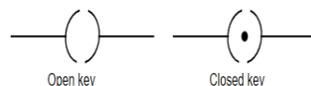
1. Draw the symbol of an electric cell.



2. Draw the symbol of a battery or combination of cells.



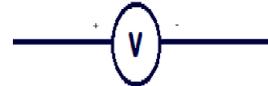
3. Draw the symbol of Plug key or switch



4. Draw the symbol of an ammeter.



5. Draw the symbol of a voltmeter.



6. Draw the symbol of the electric bulb.



7. Draw the symbol of a resistor of resistance.



8. Draw the symbol of rheostat or variable resistance.

