

General Safety

Name -
Class -
Roll number -

Introduction

Introduction to basic safety, Different electrical safety devices, Types of Circuit breakers and Measuring Instruments

What do you know about safety device?

Why do we need safety devices?

What are the main aspects of protection?



Prepare a circuit-wise list of switches, measuring device and safety devices in your house. Recall all the measuring devices procedures for measurement.



Lesson aims -



1. To reach fundamentals of electrical circuit
2. To understand some types electrical circuits and its component
3. To create electrical circuits

Space for Notes -



Space for rough work

What did you understand about electric current, simple circuits and symbols ?

Electrical safety is a general practice of workers who are exposed to handling and maintaining electrically powered equipment. It is a set of guidelines they follow to mitigate electrical hazards and prevent its dangerous effects in case of an incident

An electric circuit includes a device that gives energy to the charged particles constituting the current, such as a battery or a generator; devices that use current, such as lamps, electric motors, or computers; and the connecting wires or transmission lines.

An electric current is a flow of an electric charge between two points. Imagine it being like water in a river carrying energy. The electric charge in the electrons causes resistors in light bulbs and electric fires to heat up. It also creates magnetic fields in motors, inductors, and generators.

Activity 1

What is a Protection Device?

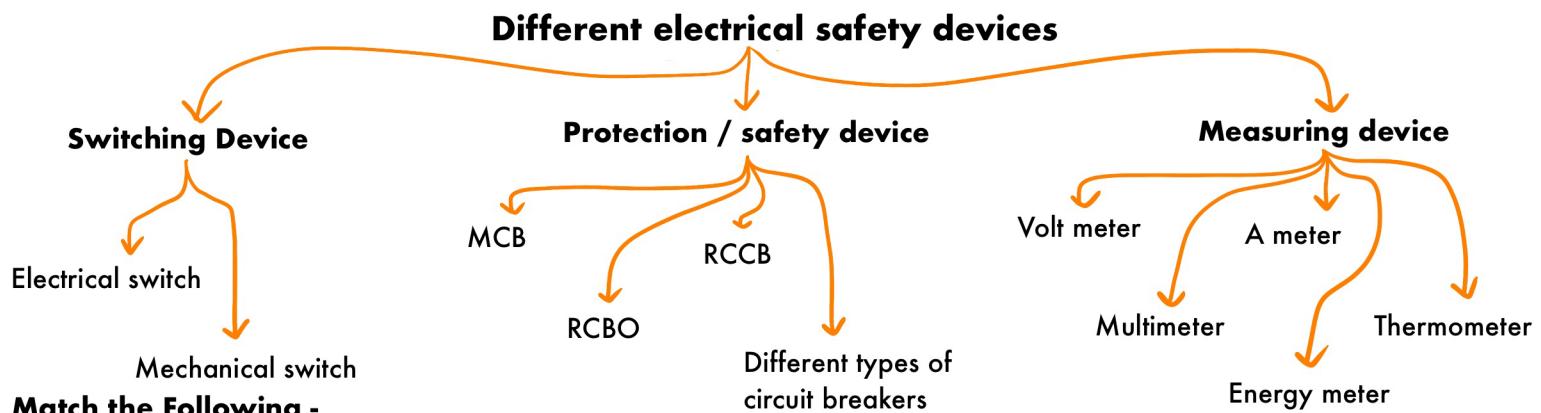
The circuit protection device is an electrical device used for preventing an unnecessary amount of current otherwise a short circuit could occur. To ensure the highest security, there are many protection devices available in the market which offers you a total range of protection devices for circuits such as a fuse, circuit breakers, RCCB, gas discharge tubes, thyristors, and more.

Label Different types of Protection Devices :-



Activity 2

Electricity is everywhere! It powers our kitchen appliances, entertainment systems, computers, water heaters, hairdryers, and countless other necessities in our homes. However, when improperly managed, electricity can be dangerous. It can cause fires and electrocute workers and homeowners, all of which can ultimately lead to serious injury or even death. Thankfully, there are a handful of safety devices that protect users from these hazardous outcomes.



Match the Following -



MCB



Different types of circuit breakers



RCBO



Volt meter



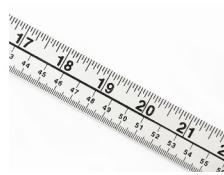
Electrical switch



Energy meter



Mechanical switch



Multimeter



RCCB



Thermometer



A meter

Space for notes -

Reflection

- 1) What are examples of electrical protection devices?
- 2) What are the different energy measurement device?
- 3) What safety elements are found in your home?

Space for notes -



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the qr code

