

### \* Exercise.

1. Give two examples each of modes of transport used on land, water and air.  
→ land - truck, car  
water - ship, Boat  
air - aeroplane, helicopter
2. Fill in the blanks.  
1. one metre is 100 cm.  
2) Five kilometres is 5000 m.  
3) Motion of a child on a swing is periodic motion.  
4) Motion of the needle of a sewing machine is periodic motion.  
5) Motion of a wheel of a bicycle is circular & rectilinear.

3. Why can a pace or a footstep not be used as a standard unit of length?

→ The size of a pace or footstep varies from person to person.

4. Arrange the following lengths in their increasing magnitude.

1 metre, 1 centimetre, 1 kilometre, 1 millimetre  
→ 1 millimetre, 1 centimetre, 1 metre, 1 kilometre.

5. The height of a person is 1.65 m.

Express it into cm and mm.

→ Height of the person = 1.65 m  
 $= 1.65 \text{ m} = 1.65 \times 100 = 165 \text{ cm}$   
 $= 1.65 \times 1000 = 1650 \text{ mm}$

6. The distance between Radha's home and her school is 3250 m. Express it in distance into km.

→ Distance between Radha's home and her school = 3250 m  
1 km = 1000 m



60, 1 m =  $\frac{1}{1000}$  km

Thus,  $3250 \text{ m} = \frac{3250}{1000} \text{ km} = 3.250 \text{ km}$

7. While measuring the length of a knitting needle, the reading of the scale at one end is 3.0 cm and at the other end is 33.1 cm. What is the length of the needle?

→ The length of the needle =  $33.1 \text{ cm} - 3.0 \text{ cm}$   
 $= 30.1 \text{ cm}$

8. Write similarities and differences between the motion of a bicycle and a ceiling fan that has been switched on.

→ Similarities = Both show a circular motion.

Differences = Bicycle shows a rectilinear motion where as ceiling fan does not.

9. Why would you not like to use a measuring tape made of an elastic material like rubber to measure distance? What would be some of the problems you could meet in telling someone about a distance if measured with such a tape?  
 → An elastic measuring tape give incorrect length of distance between two points.

10. Give two examples of periodic motion.  
 → A rocking chair and a rowing ball.

\* Multiple question.

1. Which one from the following is not able 20th century contribution:-

- a) Electric train
- b) Motor sea boats
- c) Monorail
- d) Supersonic aeroplanes



2. In 1910 the French created a standard unit called as:

- a) Metric system
- b) French system
- c) Measuring system
- d) Standard system

3. Each metre (m) is divided into three divisions called:

- a) Millimetre
- b) Decimetre
- c) centimetre
- d) kilometre

4. The ball rolling on the ground represented.

- a) Rectilinear Motion
- b) Rotational Motion
- c) Both A and B
- d) None of these

5) Transport along water roots are:

- a) Beets
- b) train
- c) cycle
- d) Bus

7) Match the following

1. March past of soldier in a parade  
→ Rectilinear motion.

2. electric fan → circular motion

3. The motion of string of a guitar  
→ Periodic motion.

4. True or False

1) The SI unit of distance is centimetre  
→ False

2) The motion of a spinning top is linear motion. → False



3) A ruler metre roof can be used for measuring curved lines  $\rightarrow$  False

4) A child swinging on a swing shape rectilinear  $\rightarrow$  False

5) The object which does not change position with the time is said to be rest  $\rightarrow$  True

Ques

Answer the following question. [Short answers].

- Why can Handspan and arm length not be used as standard unit of length?
- Because, it's vary from person to person.
- How many centimetre are there in 1 metre?
- 100 centimetre are there in 1 metre.
- Name the measuring device which can be used for ~~measuring~~ measuring breadth of tree?
- Measuring tape.
- Give one example of rectilinear motion.
- Motion of car.

• What is the unit measuring you eraser?

→ Centimetre.



Ques

\* Answer the following.

- Q1. Why would you not like to use a measuring tape made up of elastic tape material and rubber. What would you be some of the problems you would could be meet and tell someone about a distance.
- an 'elastic measuring tape gives incorrect length of the distance between two points.
- The length of elastic can tape be vary measurement two - 3 mtrs.

2.

?

- take a comb and fix it on one side of normal sheet. Fix a mirror on the other side. spread a dark colour sheet of paper between the mirror and comb send a beam of light from a torch through the comb you get a pattern of light



- Conductors

- Materials that do not allow electric current to pass through them are called Insulators.

\* Fill in the blanks.

1. A device that is used to break up an electric circuit is called Switch
2. An electric cell has 2 terminals
3. electric cell is device which converts energy of chemicals into electrical energy.
4. The electric energy which is supplied in our home comes from electric Poles near by house.
5. An electric ~~current~~ circuit is a continuous path along which current flows.



6. If a Filament of the bulb breaks it is said to be Fused.

7. Rubber is a good example of electric insulator.

\* True or False.

a) Electric current can flow through metals. [True]

b) Instead of metal wires, a jute string can be used to make a circuit. [False]

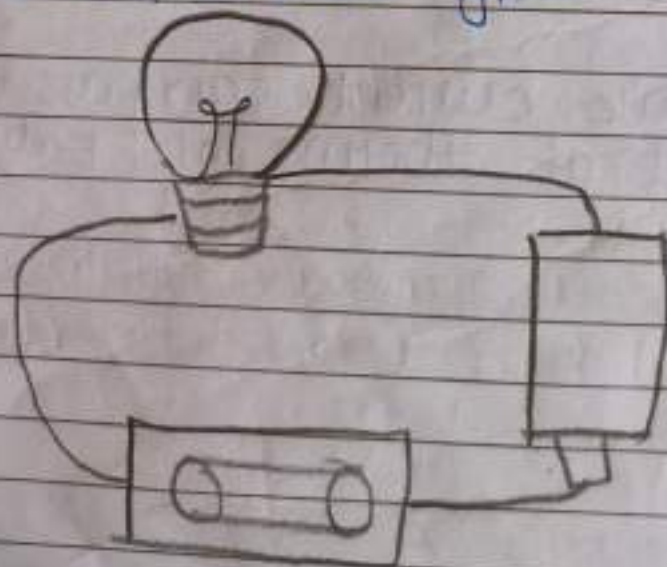
c) Electric current can pass through a sheet of thermocol. [False]

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3. Explain why the bulb would not glow in the arrangement in Fig 9.13.

→ The bulb would not glow in the arrangement shown in the figure because the one end of the tester is made up of plastic which does not allow current to pass through it.

4. Complete the drawing shown in Fig 9.14 to indicate where the free ends of the two wires should be joined to make the bulb glow.





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What is the purpose of using an electric switch? Name some electrical gadgets that have switches built into them.

→ electric switch is used to make electric ~~se~~ circuit open or close for a particular with the help of switch. we can see an appliance according to our desire the electric gadget that have built in switches are the Fan, T.V, A.C

Would the bulb glow after completing the circuit shown in Fig 9.14 if instead of safety pin we use an eraser?

→ No, since eraser is an insulator. So it is not allow current to pass through it. hence, the bulb will not glow.



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7. Would the bulb glow in the circuit shown in Fig. 9.15?

→ yes, The electric current will flow through circuit that will glow the bulb.

8. Using the 'conduction tester' on an object it was found that the bulb begins to glow. Is that object a conductor or an insulator?

⇒ Explain

→ If the object is good conductor of electricity then conductor will pass through conduction tester and bulb will glow.

9. Why should an electrician use rubber gloves while repairing an electric switch at your home? Explain.

→



→ Our body is good conductor of electricity and rubber is insulator of electricity.

- Your repair are switch the body comes in contact with current carrying wire.

- There will now not any accident that rubber does not allow the current pass through it. Hence electrician use rubber gloves repairing electric switch.

10. The handles of the tools like screwdrivers and plier used by electricians for repair work usually have plastic or rubber covers on them. Can you explain why?

→ Plastic or ~~rubber~~ rubber is an insulator which does not allow electric current pass through handles of tools like screwdrivers and pliers used for electricians for repairing & covering for plastic through the electric

Q.1 Match the column.

→ Column A column B

translucent → Butter paper

opaque → wood

transparent → Glass / water

luminous → Sun / torch / bulb

Q.2 Fill in the blanks.

1. A device that is used to break an electric circuit is called switch.

2. An electric cell has 2 terminals.

3. Electric cell is a device which converts energy of chemicals into electrical energy.

4. The electric energy which is supplied in our home comes from electric places nearby houses.



Day

Tuesday

Date: 26/11/2021

Q. true & False

1. Electric current can flow through a circuit the circuit is called open circuit.

→ False

2. An electric bulb has one terminal.

→ False

Q3. Answer the following.

1. What is an electric cell?

→ An electric cell is a device which converts chemical energy into electric energy. It has two different metal plates one is the positive terminal & other is negative terminal.

2. What is electric switch?

→ An electric switch is a simple device which is used to break or complete an electric circuit. Switches are widely used in different electrical or electronic gadgets.

3. What are components of an electrical circuit?

→ A cell or battery which is the source of electric energy. we could have one cell or more cell.

• Connecting wires by which you will connect the electric cell to the electric device.

• Bulb or electric device.

• electric switch.

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