

Notes 1 – ELECTRICITY

1. Electricity is a form of **energy**.
2. All **electrical appliances** use electricity to do work.
3. The two sources of electricity are the **mains** and the **electric cells**.
4. Most electrical appliances use **mains electricity** which comes from the **power station**.
5. In electrical appliances, **energy changes** take place.
6. Electricity costs money, therefore we should try to **save electricity** in our homes and schools.
7. Mains electricity are dangerous if it is not used properly, therefore **safety precautions** is important to prevent ourselves from electric shocks.
8. The two examples of electric cells are **dry cells** and **solar cells**.

DRY CELLS :

- a. Dry cells change **stored energy to electrical energy**.
- b. A dry cell has two terminals, namely **the positive(+)** and **the negative(-)** terminals.

SOLAR CELLS:

- a. Solar cells change **light energy into electrical energy**.
- b. Solar cells **cannot work in the dark**.

ELECTRIC CIRCUITS:

1. A circuit which allows electricity to pass through is a **closed or complete** circuit.
2. A circuit which does not allow electricity to pass through is an **open or incomplete** circuit.
3. A **switch** is used to open or close a circuit.
4. In a **closed** circuit, the switch is **'on'**. Thus electricity flows and lights up the bulb.
5. In an **open** circuit, the switch is **'off'**. Thus electricity does not flow and the bulb does not light up.
6. We can use **symbols** for electrical components.

Components	Symbols	Components	Symbols
One cell		Wire	
Two cells		Switch 'off'	
Light bulb		Switch 'on'	

7. In the symbol for a cell, the **longer line** is the positive terminal and the **shorter line** is the negative terminal.
8. Electrical components connected one after another are **in series**.
9. Two or more cells connected in series is called a **battery**.
10. As the number of cells in series **increases**, the brightness of the bulb **increases**.
11. As the number of bulbs in series **increases**, the brightness of the bulb **decreases**.

CONDUCTORS & NON-CONDUCTORS:

1. A material that allows electricity to pass through is called a **conductor**.
2. All **metals** are **good conductor** of electricity.
3. **Carbon** used in pencils is a non-metal but **it conducts electricity**.
4. A material that does not allow electricity to pass through is called a **non-conductor**.
5. **Non-metals** such as rubber, glass, wood and plastic are **non-conductors** of electricity.

THE END

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