



YAYASAN PELITA HARAPAN CEMERLANG
SMP PELITA CEMERLANG
JALAN PERDANA NO.8 PONTIANAK TENGGARA
MAINS ELECTRICITY
WORKSHEET



ACADEMIC YEAR 2024/2025

Subject : PHYSICS

Grade: IX

Date/Day: _____

NAME : _____

CLASS : _____

INSTRUCTION:

1. Watch the video in every section
2. Answer the questions given
3. You may do the work in pair.

VIDEO #1

LINK: <https://www.youtube.com/watch?v=fbu3o9wavHk>

1. There are 3 core wires used as electrical cables. We can differ them by their colors, which are _____, _____, and _____.
2. What are the wires made up of? Suggest why these materials are used?

3. What is the function of live wire?

4. What is the function of the neutral wire?

5. What is the function of the Earth wire?

6. A Wire which is connected to the fuse is _____.
7. Draw the symbol of fuse.



VIDEO #2

LINK: https://www.youtube.com/watch?v=2g8SusMrX_o

1. The potential difference of live wire is _____ Volts, while the potential difference of neutral wire is _____ volts.
2. Some electrical appliances are fitted with an earth wire. Describe how an earth wire acts as a safety feature.

3. What would happen if someone unfortunately touched a live wire? How could it happen?

VIDEO #3

LINK: <https://www.youtube.com/watch?v=S8lB2kxT1n0>

1. What is the most common problems of electricity? What is it called? How can it happen?

2. Describe the function of a fuse and circuit breakers.

3. Mr. Rolly produces 100 electric fans with an electric current of 3A each. He uses a 2A fuse for each fan. Is his decision correct? Explain your answer.

4. Explain how the circuit breakers work to overcome electricity problems.

5. Mr. Antony chose to use circuit breakers instead of fuse to be installed in his electric kettle. Before the kettles were distributed and produced in massive numbers, he tried to use the kettle first. He turned on the kettle, and unfortunately, he got shocked when he touched the kettle.

Suggest how could it happen and what should he do to prevent it.

6. A kitchen has a water supply, an electricity supply and electric lighting. There are several electrical appliances in the kitchen including a toaster, a kettle, a clothes iron, a microwave oven, and a dishwasher.

Discuss three hazards of using electricity in this kitchen.

1)

2)

3)
