

The Power of Electricity (Level 3)

Assessment Questions

Powering Against Blackouts, Part 1

1. What is an analogy?
2. What is an atom? What does it consist of?
3. Rub a balloon on your hair or sweater. What happens then? Why?
4. Can you draw a circuit?
5. Arrange these materials from high to low conductivity – copper, glass, salted water.
6. Look around you, what requires a circuit to work?
7. What are some forms of electricity around us?

Powering Against Blackouts, Part 2

1. What are some sources of power/to generate electricity? Which sources are renewable, which are not?
2. How is hydroelectric power generated?
3. Imagine that you have been hired by a local newspaper to create a news article on power outages in your community. The article will spotlight the experience of someone in the community and how they have been affected by blackouts. Write 3 questions for the interview.
4. Draw an outline of a power grid and how it should be used.
5. Depending on your country's natural resources, which renewable power is the best to utilize to generate electricity? Do you know how it is generated?
6. Why do we use power grids?

Build An Electrifying Quiz Board

1. Can you name two materials that are good conductors of electricity and two materials that are bad conductors of electricity?
2. What materials do you need to build a simple electric circuit?
3. What is the purpose of a switch in a circuit?
4. True or False: Plastic is a good conductor of electricity.
5. What is an insulator?
6. Why is it important to follow safety rules when building a circuit?
7. Can you draw a simple electric circuit with labels for the battery, wires, and light bulb?
8. What can you do if you don't have enough wires to complete your circuit?

Invent Your Own Electric Gadgets

1. List the main components of an electric circuit and describe the purpose of each.
2. Describe the steps to create a simple electric circuit using a battery, wire, and a small bulb.
3. Draw a simple circuit diagram that includes a battery, a switch, and a light bulb.
4. Why is it important for an electric circuit to be closed?
5. Explain the difference between a series circuit and a parallel circuit.
6. What is the heating effect of electric current, and provide an example of an appliance that uses this effect.
7. Choose one household appliance that uses the heating effect of electric current and explain how it works.
8. Explain the magnetic effect of electric current and give an example of an appliance that uses this effect.
9. What factors should you consider when designing an electric appliance?