

Who Turned Out the Lights?

Name _____

Phenomenon: When you walked into the classroom today, you found a dark room with no electricity and no electronic devices working. Write down your observations or questions about this situation below. Write two observations and two questions:

Observations:

- 1.
- 2.

Questions:

- 1.
- 2.

The lights were off today to help us see how not having electricity would affect our learning environment. What would happen if the lights did not come on for the whole period? Give three ideas:

- 1.
- 2.
- 3.

Investigation:

Electricity comes to our classroom in wires from a power plant somewhere nearby. Various energy resources like natural gas, wind turbines, solar panels and hydroelectric dams are used to produce electricity. Today our energy will be provided by a battery (chemical energy) and you will investigate how it can be used to turn on a lightbulb. Write a claim (hypothesis) about how the chemical energy in the battery could be changed into electrical energy to light the bulb.

Claim:

Challenge: Use the circuit kit to get the light to glow.

Draw: Show how the circuit looked when the light was on. Be sure to notice where you placed the wires on the lightbulb:

Evidence and Reasoning: Write down at least two evidence statements which show that electrical energy has been changed into light energy in your experiment.

- 1.
- 2.

Explanation: Now use your claim from above and add reasoning from your experiment to form an explanation for how the chemical energy from a battery might change into electrical energy to light the bulb.
