

Section 12.1 Portable Power – Answer Key

1) What are batteries?

Batteries are several cells that are connected together.

2) Name 5 devices in your home that use battery power.

5 devices that use battery power in my home are my computer, cell phone, camera, clock radio and my wireless mouse.

3) Define voltaic cells.

Voltaic cells are cells that have two electrodes in a liquid that uses a chemical reaction to make electric energy.

4) Define electrodes. **Electrodes are the two terminals of a battery or other electricity sources.**

5) Define electrolyte. **An electrolyte is a solution that can conduct an electric current.**

6) What are electrically charged atoms called? **Electrically charged atoms are called ions.**

7) What are radio waves? **Radio waves are electromagnetic waves that travel through the air without wires.**

Section 12.2 Practical Cells and Batteries – Answer Key

- 1) Define dry cell. **A dry cell is an electric cell that contains a chemical paste which creates a potential difference.**
- 2) Define wet cell. **A wet cell is an electrical cell that contains a liquid that creates a potential difference.**
- 3) What are the advantages of dry cells over wet cells? **One advantage is that the spilling and leaking of dangerous chemicals are avoided.**
- 4) How do you recharge a dead cell? **You can recharge a dead cell by reversing the chemical reaction by applying a potential difference from another power source.**
- 5) Define primary cells. **Primary cells are cells that can only be used once, and then must be thrown away.**
- 6) Define secondary cells. **A secondary cell is a cell that can be recharged.**
- 7) How is a 9 volt battery made? **A 9 volt battery is made of 6 small cells that generate 1.5 volts each.**
- 8) Define fuel cells. **A fuel cell is an electric cell that uses energy from chemical reactions, such as hydrogen and oxygen.**
- 9) Define solar cells. **Solar cells are electric cells that use light energy to generate power.**