

Name _____

How Do Redox (oxidation-reduction) Reactions Work?

Short Answer Key

1. One example of an everyday device that relies on redox reactions is a flashlight, where the flow of electrons (redox reactions) produces light.
2. Oxidation can be illustrated using the example of a sliced apple turning brown when exposed to air. In this process, oxygen in the air oxidizes compounds in the apple, causing it to change color.
3. In photosynthesis, redox reactions occur in the chloroplasts of plant cells. Chlorophyll captures sunlight and facilitates the reduction of carbon dioxide into glucose while releasing oxygen.
4. Redox reactions lead to the oxidation of iron in the presence of oxygen and water, resulting in the formation of rust (iron oxide).
5. Redox reactions can be used to break down and neutralize harmful contaminants in groundwater, ensuring its safety for consumption and environmental health.

