

Name _____

The Power of Outlets

Short Answer Key

1. The hot wire carries electricity from the power source to the device. The neutral wire completes the electrical circuit by providing a return path for the electrons. The ground wire provides a safe path for excess electricity in case of a fault, preventing electrical shocks and fires.
2. Circuit breakers in the home's electrical panel protect outlets and devices by tripping and cutting off the electricity in case of a surge in electrical current or an overload, preventing damage to the wiring and appliances.
3. Alternating current (AC) is preferred for most household electrical outlets because it can efficiently travel over long distances, making it suitable for powering homes and devices throughout a building.
4. Shutters in some electrical outlets cover the slots until both prongs of a plug are inserted simultaneously, ensuring safety, especially for curious children.
5. Electrical outlets make our lives easier and safer by providing a convenient and safe way to access electricity for lighting, charging devices, running appliances, and more.

