

Name \_\_\_\_\_

## The Magic of Electricity Distribution

### Short Answer Key

1. Transformers change the voltage of electricity by using electromagnetic induction. When electricity flows through the primary coil, it creates a magnetic field, which induces an electric current in the secondary coil.
2. The two main types of transformers are step-up and step-down transformers. Step-up transformers increase the voltage, while step-down transformers decrease the voltage.
3. Step-up transformers in power plants increase the voltage for efficient long-distance transmission, while step-down transformers in local substations reduce the voltage for safer distribution to homes and businesses.
4. The electrical grid contributes to reliable electricity distribution by connecting power plants to substations and homes through a network of power lines and transformers. It ensures electricity reaches its destination efficiently.
5. Safety measures mentioned in the passage include handling transformers with care, conducting regular maintenance, and implementing proper safety protocols to protect workers and the public.

