

Electric Magnetism [Activity]

This activity allows students to reenact Ørsted's discovery of the link between electricity and magnetism. It also allows them to see the geometry of magnetic fields as it relates to electric currents.

Answers to Procedure Questions

- A. 3. The current affects the compass; the compass needle can be redirected by the current-carrying wire.
4. North-south.
5. Yes, the current affects the needle even if it's running beneath the compass.
6. Reversing the current reverses the deflection of the compass needle.

Answers to Summing Up Questions

1. a. Current is moving away from observer.
b. Current moving toward observer.
2. Right hand.
3. Moving electric charge (current) is the source of all magnetic fields.