

Demonstrating Electrical Induction

Electricity All Around Us
Learner Worksheet



Name:

When the magnet moved past the coil, I observed... *(complete the sentence based on what you saw)*

Experiment 1: Does the number of turns of wire in the coil have an effect on how much electricity the coil can produce?

My prediction:

	Current strength (strong or weak)	Galvanometer reading (milliamps)
Coil with 20 turns of wire		
Coil with 30 turns of wire		

Experiment 2: Does the speed of the magnet affect the size of the induced current?

My prediction:

	Current strength (strong or weak)	Galvanometer reading (milliamps)
Moving the magnet slowly		
Moving the magnet quickly		

Experiment 3: Does the strength of the magnet affect the amount of electricity induced in a coil?

My prediction:

	Current strength (strong or weak)	Galvanometer reading (milliamps)
Moving the magnet slowly		
Moving the magnet quickly		

Experiment 4: Which movement produces the most electricity?

My prediction:

	Current strength (strong or weak)	Galvanometer reading (milliamps)
Moving the magnet over the coil		
Moving the magnet through the coil		

1. Based on your observations, what combination of magnets, coils and movements would make the most electricity?

2. Were any of your predictions incorrect? Which one(s)?

3. During which experiment did you notice the greatest increase in electricity?

4. Electrical generating stations have huge machines that contain magnets and coils. When they turn, they make very large amounts of electricity. It takes large amounts of energy to make these machines turn. What are some sources of that energy?
