



# MODEL PRIVATE SCHOOL, ABU DHABI

## PHYSICS-WORK SHEET

Name: \_\_\_\_\_ Grade: 8

### Topic: Strength of an electromagnet

- **My Learning Goal:** I will be able to \_\_\_\_\_

#### Observation

**Activity:** Use the **PhET simulation** explore the ways to increase the strength of an electromagnet by changing

- Number of coils (turns)
- Battery voltage

Number of coils	Strength of the electromagnet	Voltage	Strength of the electromagnet
	Increases/Decreases		Increases/Decreases
	Increases/Decreases		Increases/Decreases
	Increases/Decreases		Increases/Decreases

#### ➤ **My Hypothesis:**

- If the number of coils increases, then the strength of the electromagnet will \_\_\_\_\_
- If the battery voltage increases, then the strength of the electromagnet will \_\_\_\_\_

#### • **Extension Question:**

Which is the other factor that influences the strength of an electromagnet?

#### • **Super-Extension Question:**

Which factor do you think has the **greatest effect** on the strength of an electromagnet? Why?