

LED Circuit and Phototransistor

30 minutesDiscovering the Magic of Circuits

WHAT THIS LESSON DOES

Guide your students through building a circuit with a phototransistor and LED using Snap Circuits. Introduce the concept of phototransistors, assist with assembling components on the base grid, and demonstrate how light activates the circuit, reinforcing electricity flow concepts.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand the function and purpose of a phototransistor in a circuit.
- Build a simple circuit using snap circuit components, including an LED and phototransistor.
- Recognise the importance of correct component orientation for proper circuit functionality.
- Demonstrate how light can control electrical flow in a circuit.
- Explore creative applications of light-sensitive circuits through hands-on experimentation.

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HOW THE LESSON RUNS	
Introduction	
Prepare the Base Grid	
Inserting Batteries	
Place the battery holder (B1)	
Place wire block (3)	
Place the red LED light block (D1)	
Place the phototransistor block (Q4)	
Lighting Up the Circuit	
Exploration and Conclusion	