

CHAPTER
14 **Project Recording Sheet**
Set Theory and Discrete Math

What Goes Around Comes Around

Electricity flows through a circuit. The circuit must begin at a power source and return to the power source without a break.

1. Experiment with electrical circuits by using a small battery, a bell wire, and a flashlight bulb. On another piece of paper, draw various ways that a circuit can be created.
2. Write a description of one way to make a circuit.

3. Sketch two-switch circuits where
 - a. both switches must be closed for the light to work.
 - b. either switch can operate the light.
4. Decide if each situation is an “and” or “or” situation. Explain your reasoning.

Smoke/CO ₂ Alarm		
Inputs		Output
Smoke	CO ₂	Sound
Smoke	No CO ₂	Sound
No Smoke	CO ₂	Sound
No Smoke	No CO ₂	No sound

Car Buzzer		
Inputs		Output
Door open	Key in ignition	Sound
Door open	Key not in ignition	No sound
Door closed	Key in ignition	No sound
Door closed	Key not in ignition	No sound
