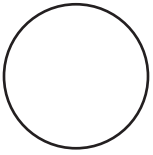
Welcome to *Rock, Paper, Physics!*

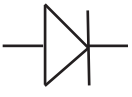
This is an instructable activitiy that uses physics to help teach your subject, designed by your teacher! Enjoy!



This is a battery. It holds a lot of charge.

This is a resistor. It uses charge to create heat.
A potentiometer is a a resistor that can change resistance.

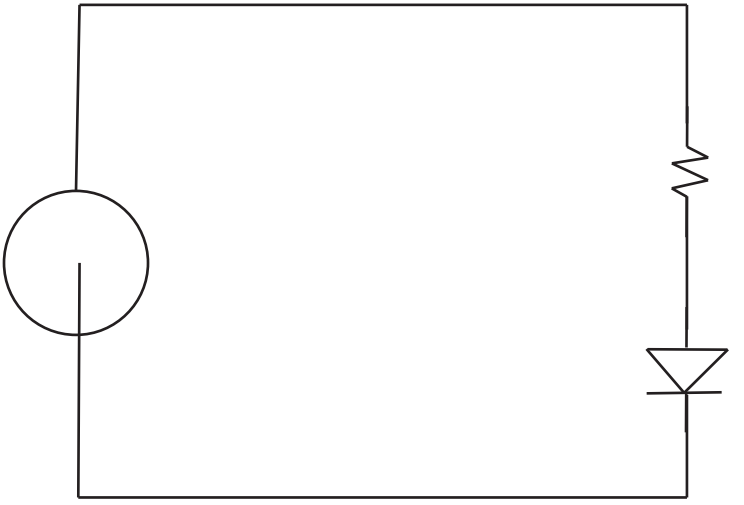
This is an LED. It uses charge to create light.



This is a capacitor. It holds a little charge.

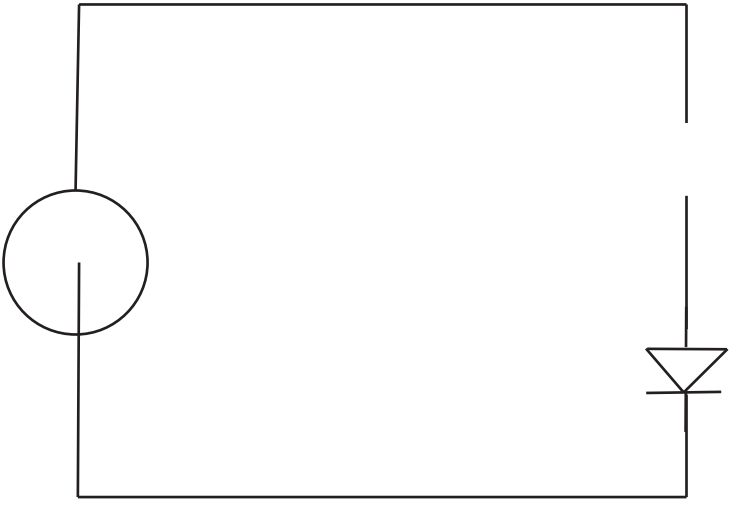
This is a wire. It lets current move from one element to another. ———

When put together, they create a circuit.



Activity 1: Introduction

Tear the circuit elements out from the previous circuit and place them in their corresponding symbol below. Roll up a piece of provided copper tape, sticky side out, and attach the battery to the tape going down within the circle. Connect the top of the battery to the tape going up with another piece of copper tape.



Begin with just putting a resistor in the gap to complete the circuit. Replace the resistor with another element (wire, capacitor, potentiometer, LED) and pay attention to how the initial LED reacts.

Activity 2: Simile

In this activity, we will use our circuit to learn about **simile**. A **simile** is when we compare two things using **like** or **as**.

For each circuit element write 3 **similes** comparing that element to something else.

Battery

1 **EXAMPLE:** The battery is like the sun.

2 _____

3 _____

LED

1 _____

2 _____

3 _____

Wire

1 _____

2 _____

3 _____

Resistor

1 _____

2 _____

3 _____

Choose your best **simile** and write 3-5 sentences explaining it.

How does this activity help you understand **simile**?

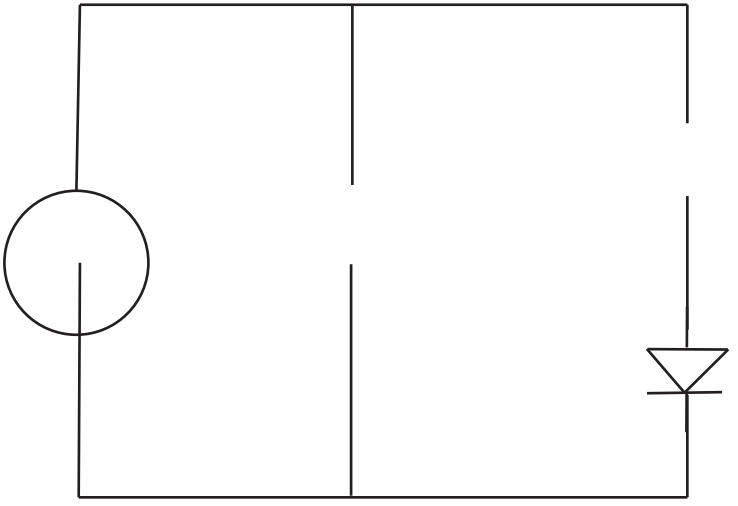
How does writing **similes** help you understand the circuit?

Activity 3: Personification

In this exercise we will use the circuit to learn about **personification**. **Personification** is when we assign life-like characteristics to something non-human.

Directions:

1. Remove the circuit elements from the previous circuit and place them in the labelled spots below. Remember to connect the battery using the same method as last time.
2. Play with the circuit.
3. Consider how each element acts in the circuit.



Now, work with your group to create "dating profiles" for each circuit element. Describe each element as though it were a person.

Battery

Personality Traits: Energetic, humble, consistent, always ready to go

Likes: Energy drinkgs, scuba diving

Dislikes: shorts, high temperatures

Looking for: someone chill, respectful, & appreciative

Nickname: The bunny

Capacitor

Personality Traits: _____

_____

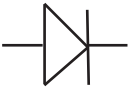
Likes: _____

Dislikes: _____

Looking for: _____

Nickname: _____

LED



Personality Traits: _____

_____

Likes: _____

Dislikes: _____

Looking for: _____

Nickname: _____

Resistor

Personality Traits: _____

_____

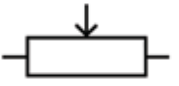
Likes: _____

Dislikes: _____

Looking for: _____

Nickname: _____

Potentiometer



Personality Traits: _____

_____

Likes: _____

Dislikes: _____

Looking for: _____

Nickname: _____

How did personifying each circuit element help you understand the circuit?

How did the circuit elements help you understand personification?

How is personification different from descriptive writing (like what we did in exercise 1)?