



Building a Simple Telegraph

Send messages with electricity!

Name: _____ Date: _____

GOAL

Build a simple telegraph using a battery, wires, a key (switch), and a buzzer. Use it to send and receive messages.

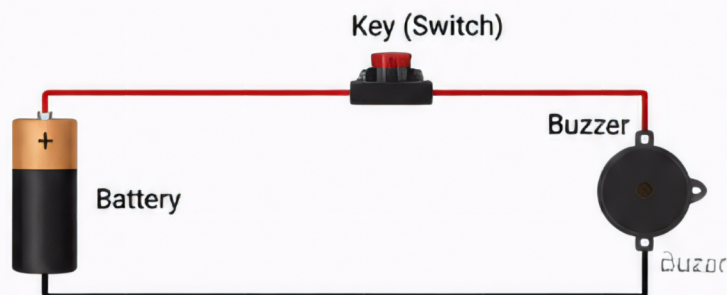
BACKGROUND

Telegraphs were early communication devices that used electricity to send messages. In this experiment, pressing the key closes the circuit and turns on the buzzer. Releasing the key opens the circuit and turns the buzzer off. Short buzzes and long buzzes can represent "dots" and "dashes" to make letters.

MATERIALS

- 1 × 1.5V battery (AA or D cell)
- 1 × buzzer (3V)
- 1 × key (push button switch)
- 3–4 × alligator clip jumper wires
- Tape (optional)
- Paper and pencil

CIRCUIT DIAGRAM



PROCEDURE

1. Connect one wire from the positive (+) end of the battery to one terminal of the key (switch).
2. Connect a second wire from the other terminal of the key to the positive (+) terminal of the buzzer.
3. Connect a third wire from the negative (–) terminal of the buzzer to the negative (–) end of the battery.
4. Check all connections. The circuit should match the diagram.
5. Press the key. You should hear the buzzer sound.
6. Release the key. The buzzer should stop.
7. You have built a simple telegraph!

SENDING CODE

- Short press = dot (•)
 - Long press = dash (–)
 - Pause between letters
 - Longer pause between words
- Use the code chart below to send secret messages!

MORSE CODE CHART (EXAMPLES)

A • –	G – – •	M – –	S • • •
B – • • •	H • • • •	N – •	T –
C – • – •	I • •	O – – –	U • • –
D – • •	J • – – –	P • – • •	V • • – –
E •	K – • –	Q – – • –	W • – –
F • • – •	L • – • •	R • – •	X – • • –
			Y – • – –
			Z – – • •

THINK & REFLECT

1. What happens when you press the key? _____
2. What happens when you release the key? _____
3. How could people use a telegraph in the past? _____
4. Challenge: Can you send your name in Morse code? Try it!

