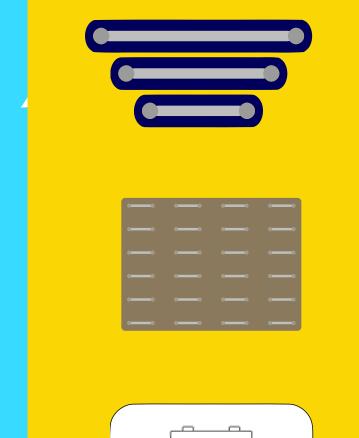
## Explore... Learn... Create

**Tinker Logics** 

**Booklet** 

Ages +8



## **Jumpers**

flexible wires used to connect different parts of a Snap Circuits project.

## **Breadboard**

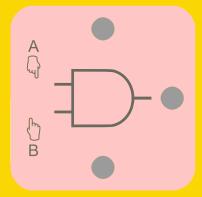
a tool for building circuits without soldering. You can plug in wires and parts to test ideas quickly and easily!

#### Battery

the power source that gives energy to your Snap Circuits projects.

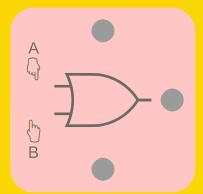


# **Logic Gates**



# AND Gate

a special circuit that needs two signals to be ON at the same time. If both inputs are ON, the output will turn ON too!



## **OR Gate**

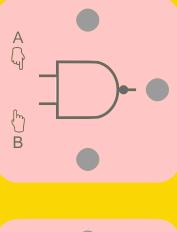
turns ON if at least one input is ON. If either one or both inputs are ON, the output will turn ON too!

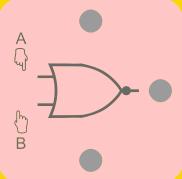


the opposite of an AND Gate. It stays ON unless both inputs are ON at the same time — then it turns OFF!

#### NOR Gate

the opposite of an OR Gate. It only turns ON when both inputs are OFF. If any input is ON, the output stays OFF!

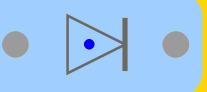




# Outputs



makes a sound when the circuit is closed. It's like a little alarm that lets you know something is happening in your project!



#### LED

a small light that shines brightly when the circuit is on.

#### Motor

makes things move! When the circuit is on, the motor spins and powers fans.

