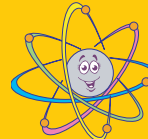


SHORT CIRCUIT!



In **SHORT CIRCUIT!** You will move through a circuit and try to be the first to reach the light bulb. Batteries and short circuits will speed you up but resistors and diodes could slow you down. Have fun!

Game play:
Before you begin, you must decide which path you will take when you get to the "junction" square. One path is shorter, but you could lose three turns. The other path is longer but safer.

Each player takes turns drawing numbers and moving forward. When you land on a square read it out loud and follow any instructions. If you land on a "short circuit" square you get to immediately travel through the short circuit path. You must draw an exact number to land on the light bulb and win the game. The first person to reach the light bulb wins!

RESISTORS WHICH HAVE RESISTANCE SLOW CURRENT DOWN!

The higher the resistance, the more slowly current flows.

CAPACITOR!
Lose 3 turns while the capacitor charges before moving ahead 7 spaces!
CAPACITOR!

CAPACITATORS STORE ENERGY, THEN RELEASE IT QUICKLY!

When there is a short circuit, current can skip some resistors.

SHORT CIRCUIT!
Take the short circuit to advance to the square below.

MEDIUM RESISTANCE!
LOSE 2 TURNS

BATTERIES MAKE CURRENT FLOW FASTER.

A BATTERY GIVES YOU ENERGY! MOVE AGAIN!

LOW RESISTANCE!
LOSE 1 TURN

CURRENT FLOWS THROUGH A CIRCUIT!

START HERE!

Usually, some current chooses to go one way and some chooses to go the other way.

JUNCTION
←
↓

AT A JUNCTION, CURRENT CAN DECIDE WHICH WAY TO GO.

The arrow tells which way current is allowed to flow in a diode.

Blocked by a diode, lose one turn!

DIODES ONLY ALLOW CURRENT TO FLOW IN ONE DIRECTION!

Batteries store energy and release it slowly.



LOW RESISTANCE!
LOSE 1 TURN

The lower the resistance in a path, the more likely current is to choose that path.

Have all the players say why they chose the path they did.

HIGH RESISTANCE!
LOSE 3 TURNS

Resistance is measured in Ohms, named after physicist Georg Ohm.

CAPACITOR!
Lose 3 turns while the capacitor charges before moving ahead 7 spaces!
CAPACITOR!

In 1895, Nikola Tesla built a power plant powered by Niagara Falls.

SHORT CIRCUIT!
Take the short circuit to advance to the square below.

MEDIUM RESISTANCE!
LOSE 2 TURNS

How many things can you think of that are powered by batteries?

Did you know that Thomas Edison invented the electric light bulb in 1879?

HIGH RESISTANCE!
LOSE 3 TURNS

A BATTERY GIVES YOU ENERGY! MOVE AGAIN!

A: Because they liked each other!

ELECTRICITY JOKE!
Q: Why did the lightbulbs go out?

The diode lets you through, move again!

Did you know your brain sends signals to your muscles using electricity?