

KIRTON PRIMARY SCHOOL

TERM 3 NEWSLETTER 2021



YEAR FOUR

January 2021

Dear Parents and Carers

We would like to wish you a happy New Year and welcome to the start of 2021. In light of the current government guidance, the majority of children will be learning from home using Google Classrooms: this learning will mirror the learning that takes place in school.

Our Topic

Term 3: Electricity

Children will learn about electricity and how to build different circuits. The children will also be looking at, designing and building bridges.

Maths and English

In maths lessons, children will be learning about: the four basic operations, angles and bar charts. In order to support your child, you could talk to your child about the maths they are learning, identifying the types and names of angles and data they see presented in bar charts. It would really support your child if they were confident with their times tables. This would help them in all areas of maths. This term your child needs to learn up to the 9x table.

x2 x10 x5 x4 x3 x8 x6 x9 x7 x11 x12 p1

In English, we will be learning about: scientific reports, instructions and stories. In order to support your child, you could look at stories and discuss how the authors develop settings, plots and characters. You could also look at instructions and identify common features that appear in nearly every single one.

The spellings that your child will be learning this term can be accessed through our school website; it would be really useful if you could help your child to learn these spellings.

Please encourage your child to read at home every day and ask them questions about what they are reading at every opportunity.

We will be using **Collins Big Cat ebooks** and aim to update the book choices regularly. Login details have been sent home for this.

Important Dates

- 4.1.21 First day of term 3
- 8.2.21 Parents' Evening 3.30 – 6
- 9.2.21 Parents' Evening 3.30 - 6
- 10.2.21 Parents' Evening 3.30 - 6
- 11.2.21 Parents' Evening 3.30 - 6
- 12.2.21 Last day of term 3
- 22.2.21 First day of term 4

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HOW YOU CAN SUPPORT YOUR CHILD'S LEARNING THIS TERM:

Key things that parents can do to support their child this term related to things they will be learning about are:

- Suggesting your child reads instructions that come with toys and games and recipes to any meals you are cooking and identifies similarities between them all
- Identifying whether electrical items in the home are battery powered or using mains electricity
- Why not try the activities below?

Yours sincerely

Mr Slaughter, Mr Batterham and Mr Saw
Year Four Class Teachers

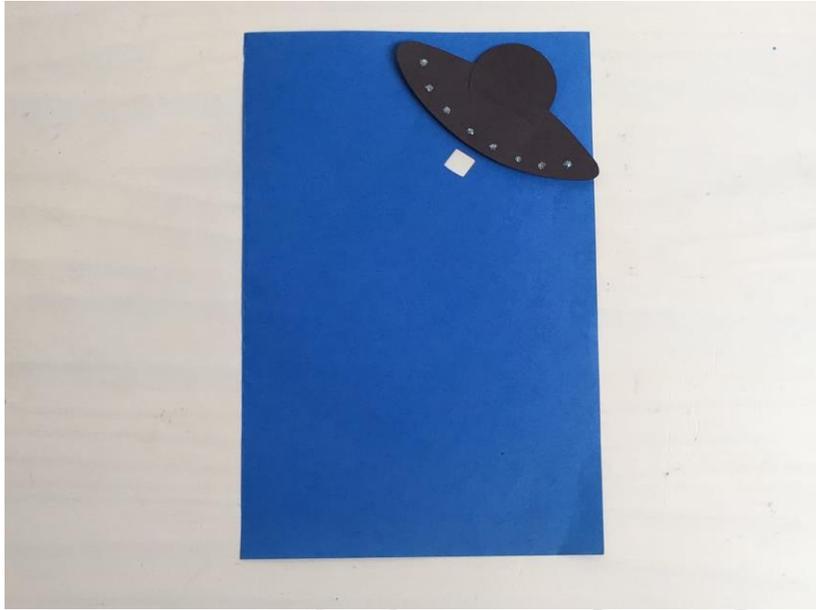
Incredible Card Circuits



Decide how you want to decorate the front of your card and cut out paper shapes.

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Plan where you will place the LEDs. In this example, we will have an LED shine from the bottom of the UFO so we cut a hole in the paper there.



Lay out your paper shapes and stick them down with a glue stick. We also used double sided sticky foam squares under some of the stars and the UFO for a 3D look. Feel free to decorate more with glitter, markers, and more!

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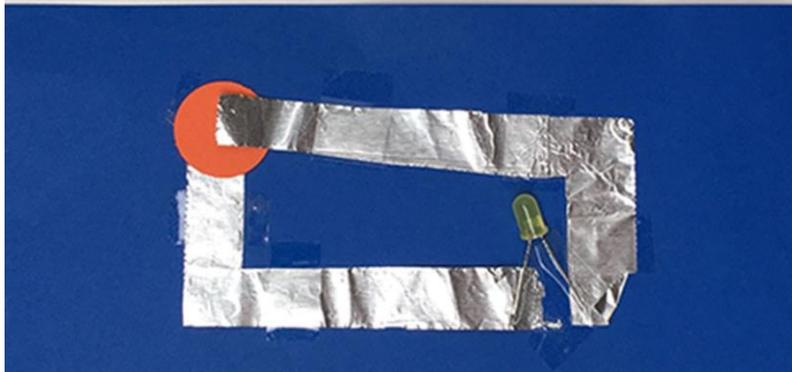
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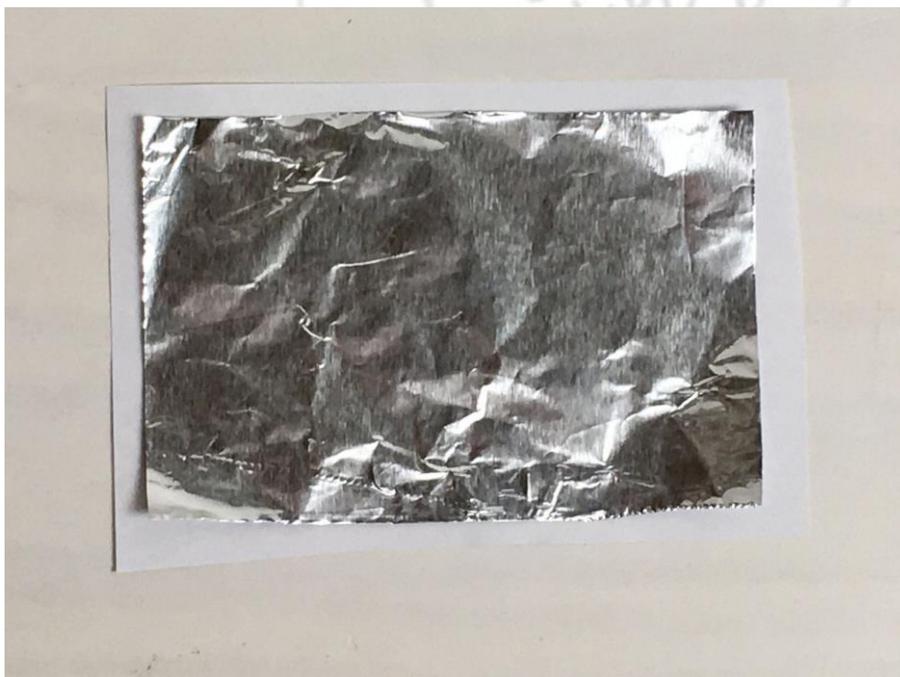
We covered the hole with a piece of tissue paper. This is optional, but we wanted to go for a different lighting effect.

Simple Circuit

● = battery



Note: In this step we used regular LEDs (they have the two wires!), and sewable LEDs (looks like an oval!). Any kind of LEDs work - just be sure the LED, as well as the battery have good contact with the foil and that there is no tape in between the parts and the foil.

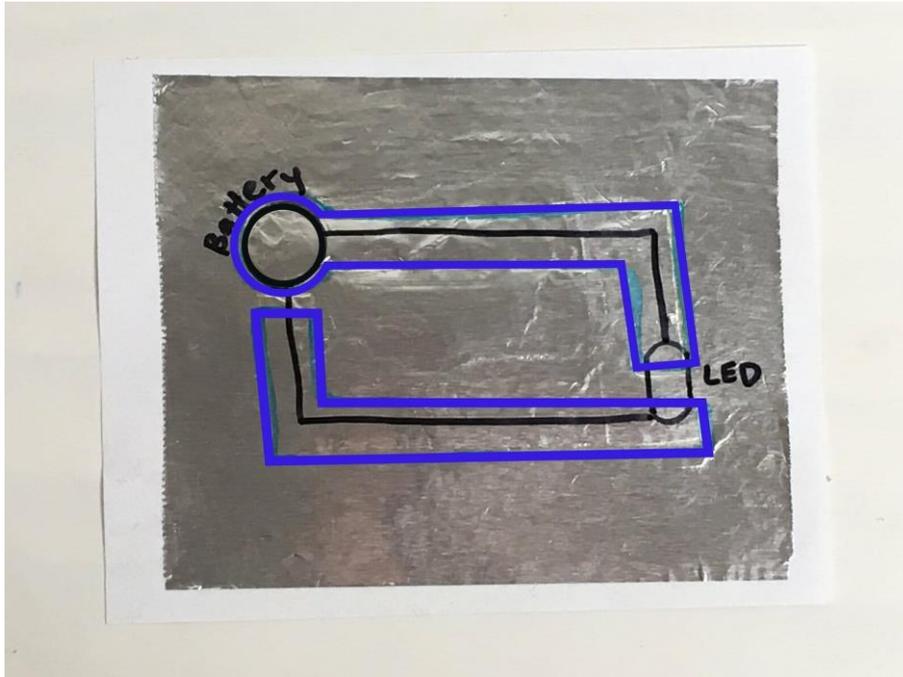


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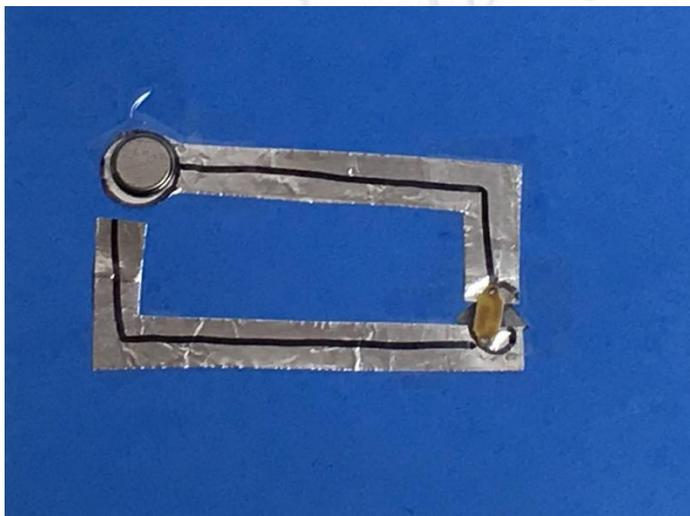


To build a circuit, glue some aluminium foil to a piece of paper.



Draw out a circuit with a coloured sharpie. In our example, we used a blue marker to draw our circuit. Cut out a piece of foil to practice drawing a circuit!

Trace your battery, and LED onto the foil with a black marker. It might be helpful to also draw a black line to visualise the path of the current.



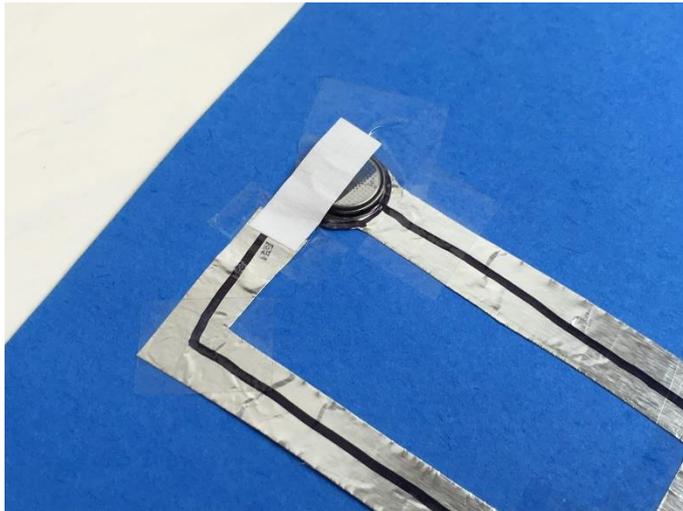
Cut out the foil paths by following the coloured lines. Use clear tape to tape the foil paths to the back of your card.

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Next, tape your LED and battery to the foil. Make sure the LED shines through a hole you've made. Notice the LED bridges a 1 mm gap in the foil paths and that the battery is only sitting on one of the foil paths.



Cut a small piece of rectangular foil with paper backing (from step 5). This flap of foil is used to connect the second foil path to the top of the battery to complete the circuit.



Once the connections are made, your LED should light up. If it doesn't, make sure the connections are secure or try flipping the battery over.

What's going on?

You made a circuit! Electricity flows through circuits as charged particles move from the battery through the LED and back to the other side of the battery forming a closed loop. This flow of electrons is called current. Certain materials like aluminium foil allow electricity to flow whereas other materials like wood and rubber do not.

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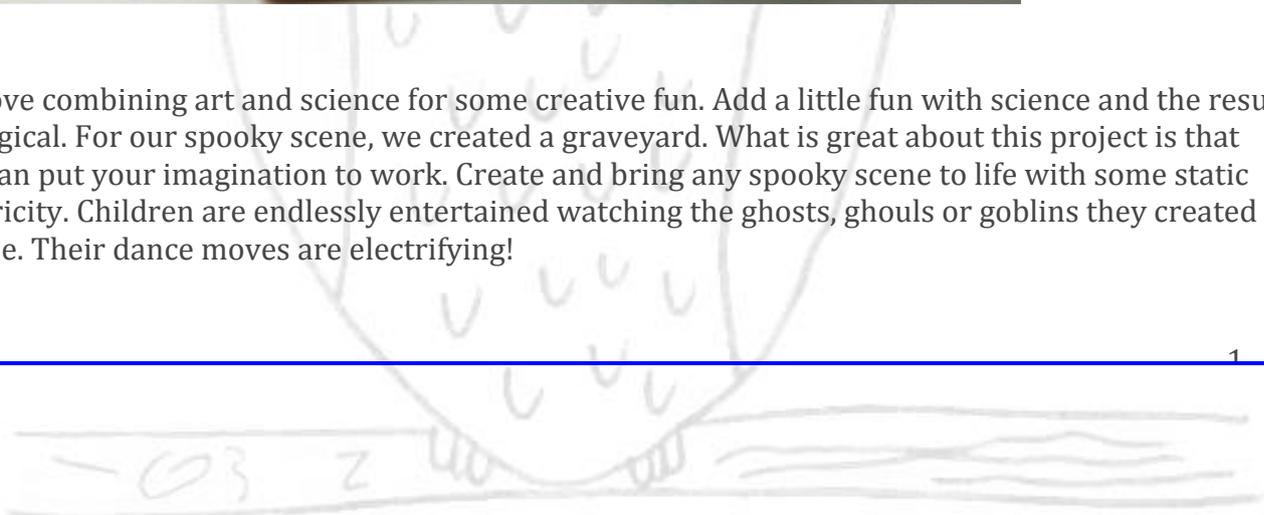


Graveyard Boogie



We love combining art and science for some creative fun. Add a little fun with science and the result is magical. For our spooky scene, we created a graveyard. What is great about this project is that you can put your imagination to work. Create and bring any spooky scene to life with some static electricity. Children are endlessly entertained watching the ghosts, ghouls or goblins they created boogie. Their dance moves are electrifying!

1



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Make your tree:

Draw and cut out a spooky tree on black paper. At the base of the tree, fold back a tab and glue the tab / tree onto the cardboard or black chalkboard. If needed, cut out a tall, rectangular piece of construction paper to prop up your spooky tree. Glue one end of the tall rectangular piece onto the back of the tree and the other end onto the black chalkboard.



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Add tombstones:

Cut tombstones out of black construction paper and some pieces of grass out of the green construction paper. Just like step 1, fold back tabs to glue your tombstones and grass to your graveyard.



Create ghosts, ghouls or goblins:

Cut out ghosts from the white tissue paper. Using the black pen, draw faces onto the ghosts. Glue the bottom edge of the ghost to the back of the tombstones. You could create witches that dance for your next scene!



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Make them boogie:

It's time to make the ghosts boogie. Inflate the balloon and rub it with a piece of wool felt. Then, hold the balloon above your graveyard scene and move it back and forth. The static electricity will make the tissue paper ghosts rise and dance!

Electrostatic Toothpick



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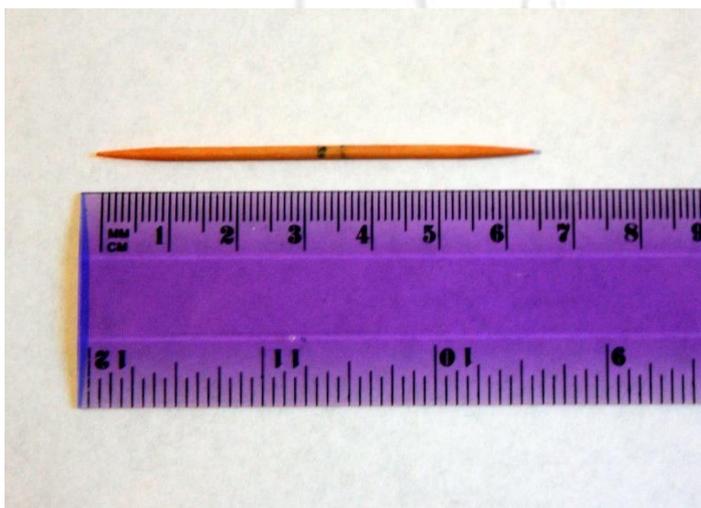


How strong is static electricity? Can it move through a cup? Can we actually see it working? We are going to find out!

1.
2.



We love playing with static electricity! This one is fun because it works at somewhat long range.



First, measure the toothpick and mark the middle point.

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Next, get a coin upright.



When your coin is balanced, take the toothpick and lay it crosswise over the top of the coin.



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Then, carefully put the see-through cup over the coin and toothpick.



Then, pick up the balloon and rub-da-rub-rub it across the back of your hair. This negatively charges the balloon....



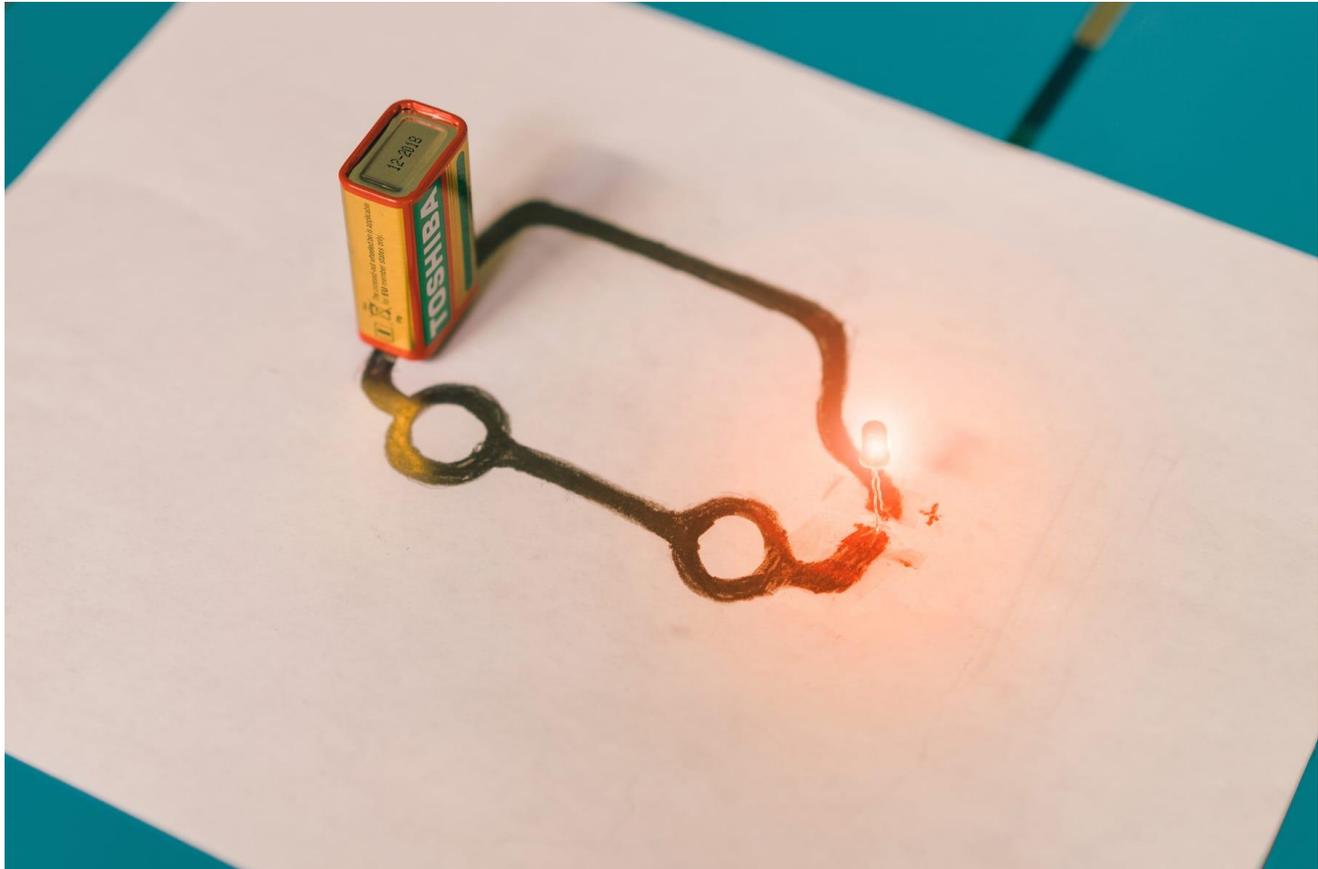
...and bring the statically charged balloon closer to the cup. The toothpick should move! The positively centred toothpick is attracted to the negatively charged balloon which makes the toothpick rotate and swing atop the coin!

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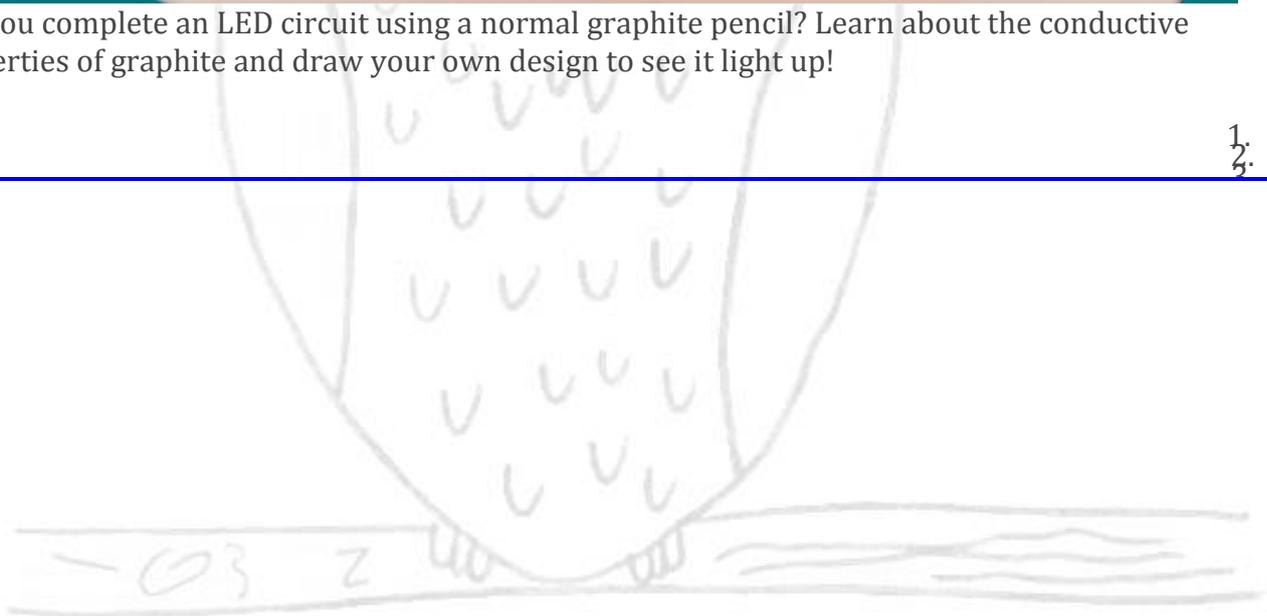


Graphite Circuit



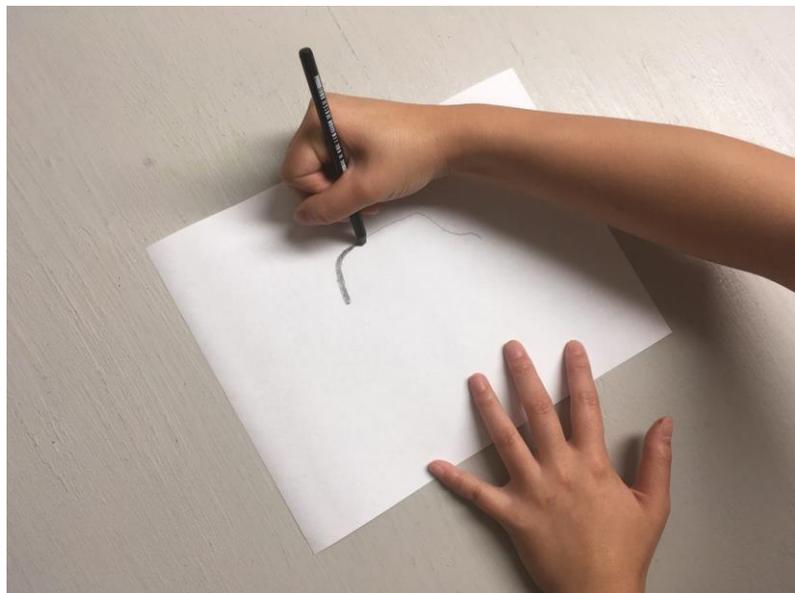
Can you complete an LED circuit using a normal graphite pencil? Learn about the conductive properties of graphite and draw your own design to see it light up!

1/3



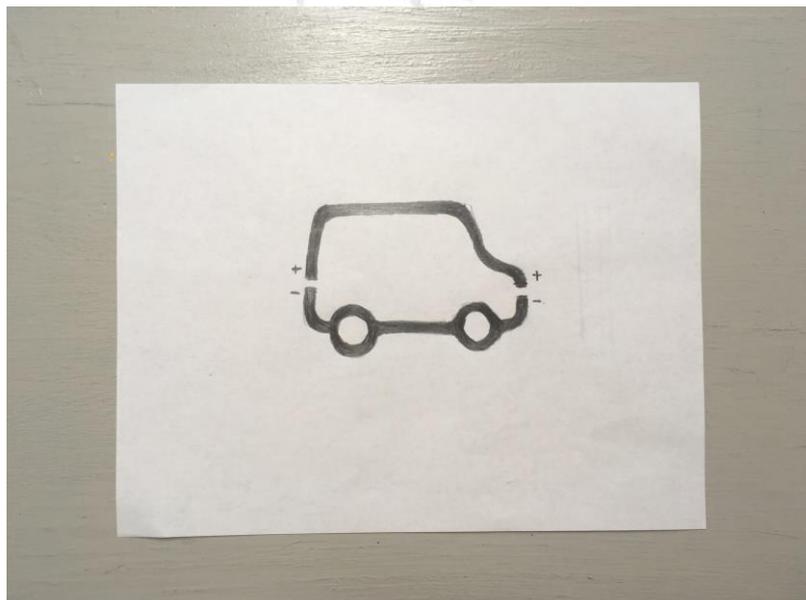
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Use your normal graphite pencil and draw any design on your paper.

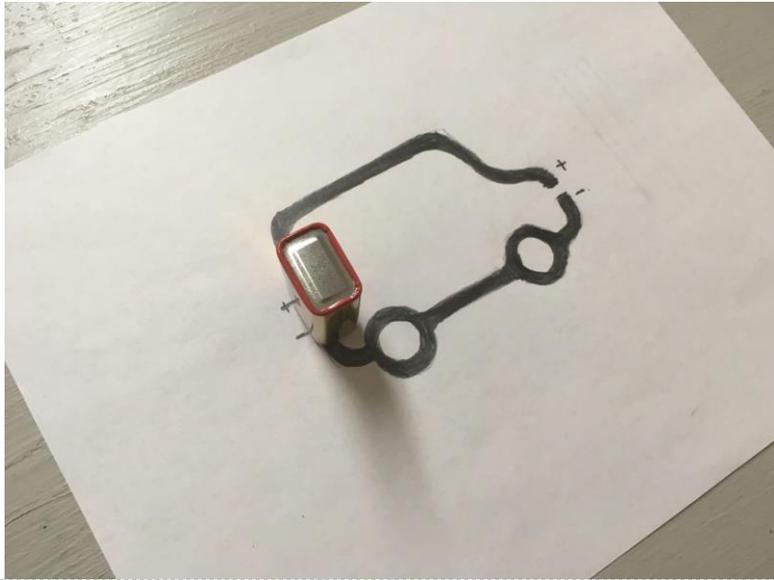
Tip: Draw a simple image where all the lines are connected and make sure to create thick, bold lines with your pencil.



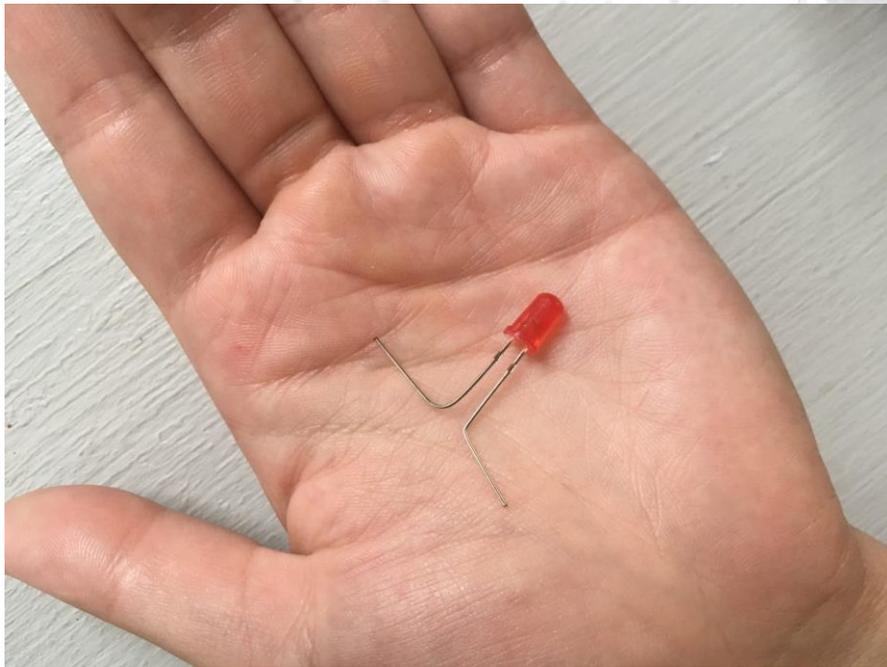
In your drawing, leave at least a 1 cm gap on opposite ends of your drawing. Mark your positive and negative lines.

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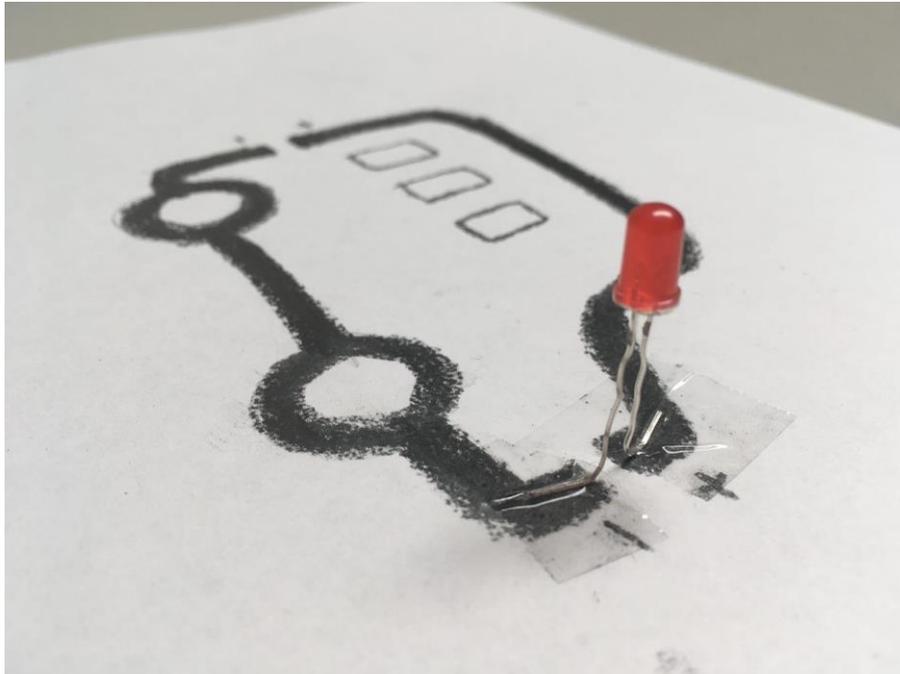
Once you're done with your design, place the battery on one of the gaps. Align the positive and negative ends with the graphite lines.



Take an LED and bend the bottom ends of the wires.

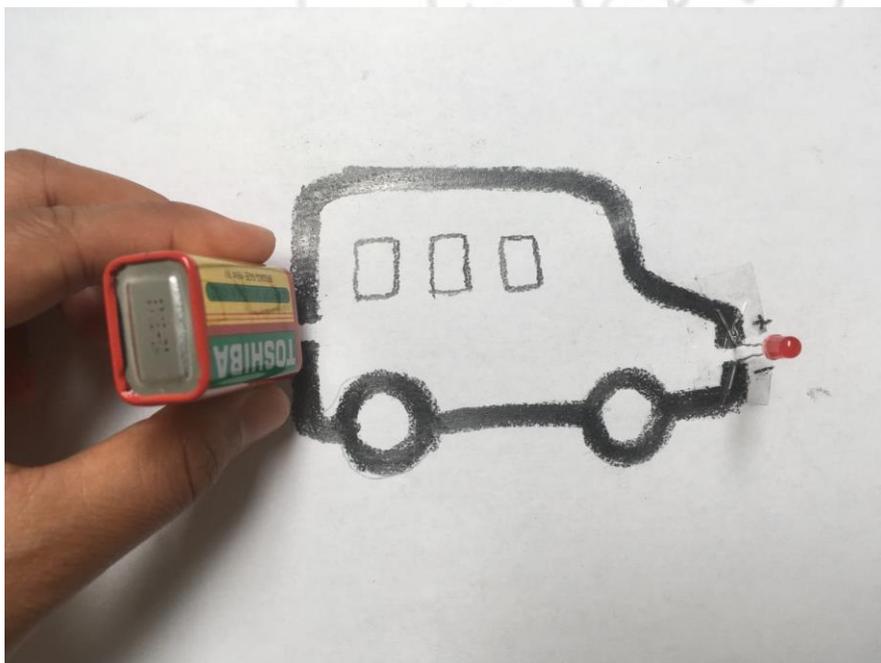
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Tape the wire at the end of the lines across the other gap, aligning positive and negative wires. Make sure your LED stands upright. The wires should be in contact with the graphite lines.

Tip: The longer side of the LED is the positive side.



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What's going on?

Graphite is an electrical conductor which is perfect for learning about circuits and electricity! Because graphite is low in conductivity, the success of a circuit will depend on the length, thickness, and amount of graphite on the paper. For example, the longer the graphite path is, the dimmer your light will be.

It's time to experiment! Try drawing lines of different lengths. Does it make a difference to the LED? Try drawing lines of different thicknesses. Does that make a difference to the LED?

