Science Kits Artec®

Worksheet

Contact Voltage Tester

Experiment Kit

Year	Class	#
Name		

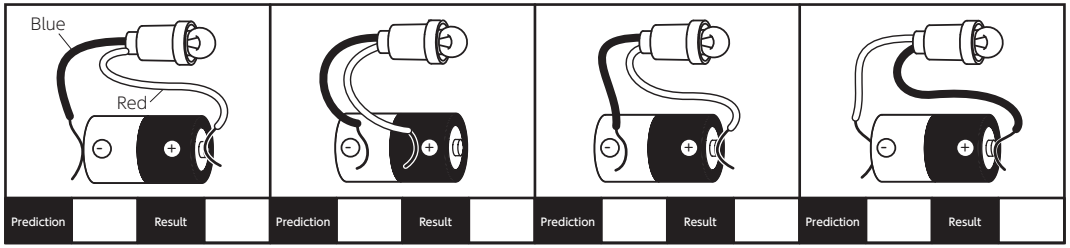
Experiment 1 Lighting a Miniature Light Bulb

How should you connect the wires to light the bulb?

Prediction: Draw a ○ if you think it will light up and an × if you think it won't!
Result: Draw a ○ if it lit up and an × if it didn't!

Twist your miniature bulb all the way into the socket!

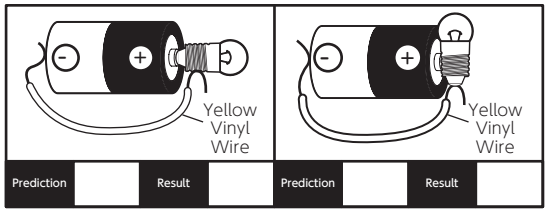




Try It Out! 1

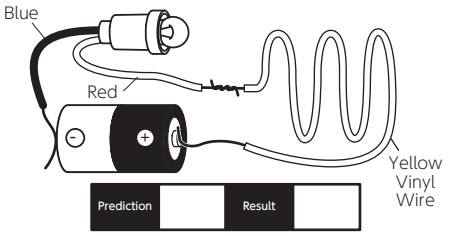
Try using your length of yellow wire to light up the bulb without using the socket!

Prediction: Draw a ○ if you think it will light up and an × if you think it won't!
Result: Draw a ○ if it lit up and an × if it didn't!



Try It Out! 2

Make the socket wires longer by connecting yellow wire and try lighting the bulb!

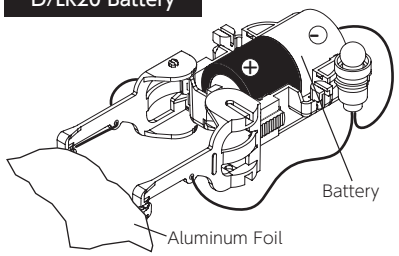


☆ How should you connect the wires in order to light the bulb?

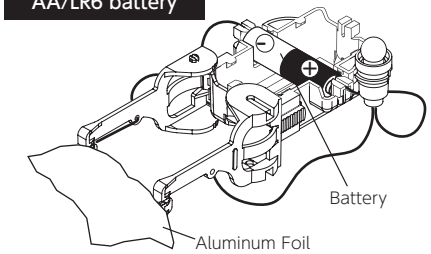
Experiment 2 Testing Conductivity

Connect the wires as shown to see if the bulb lights up!

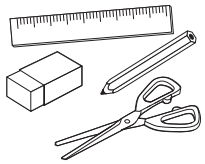
D/LR20 Battery



AA/LR6 battery



Try it with objects from home!



Remember to remove the battery once you're done!

Prediction: Draw a ○ if you think it will light up and an × if you think it won't!
Result: Draw a ○ if it lit up and an × if it didn't!

Item	Prediction	Result	Item	Prediction	Result
Aluminum Foil			Can (after sanding)		
Scissors (metal blades)			Can (before sanding)		
Scissors (plastic handle)			Nail (steel)		
Paper					

Scratching the Surface

① Sand off the surface of the can with sandpaper, then connect the wires to see if it conducts electricity!
② Now try it with the coated surface of the can!



★ Write down what you found out about different materials and their conductivity!

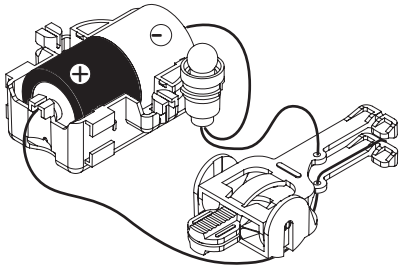
These conduct electricity...	And these don't!

Metals like steel, copper, and aluminum are great conductors of electricity.

The surface of the can is covered in a material which isn't ( ) before you sand it, which means it ( ) conduct electricity.

Experiment 3 Using the Switch

Follow the instructions on the box to use the switch light the bulb!



☆ What do you need to do to the switch to light the bulb?