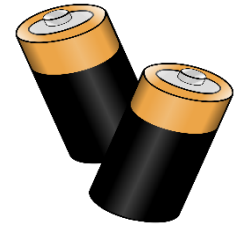


Dead or Charged



Goggles Needed

At this station you have a battery holder with two different batteries and string of holiday lights.

Try each battery and make observations about the holiday lights.

Record your observations on your student sheet.

Wind Up Jumping Toy



Goggles Needed

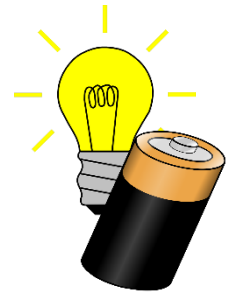
At this station there are three identical wind up jumping toys. These are the toys that move when they are wound up.

- Select one of the toys and turn the knob two times only. Place the toy on the table and watch what happens. Think about how far it went, how many times it jumped, etc.
- Select the second toy and turn the knob five times. Place the toy on the table and watch what happens. Keep track of the same type of variables from the first one.
- Select the third toy and turn the knob ten times. Place the toy on the table and watch what happens. Record the information like the prior two trials.



Please only turn the knob as many times as the directions say so that you do not over wind the toys.

Battery, Bulb, and Wire



Goggles Needed

You have a battery, bulb, wires, and light that you are asked to assemble so that you create a circuit allowing the bulb to light.

Try different ways to make the bulb light up and then sketch your circuit on your student data sheet.



The battery may get hot.

Hand Crank Device



Goggles Needed

The device that is here uses a crank to generate power that will allow the it to work.

1. Turn the crank on the device ONCE and observe what happens when you turn it on.
2. Turn the crank on the device FIVE times and observe what happens when you turn it on.
3. Turn the crank on the device TWENTY times and observe what happens when you turn it on.

After each time, record your observations on your sheet.



Please only turn the knob as many times as the directions say so that you do not over wind the device.

It's Energizing Student Sheet



Hand cranked device:

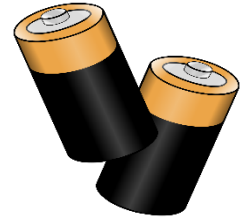
Describe how well the device worked for each trial.

ONE TURN	
FIVE TURNS	
TWENTY TURNS	

Explain what you think happened regarding **energy** the more times the crank was turned.

Where did the energy start before it was transferred to the device?

Dead or Charged

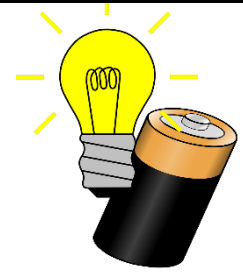


Describe what happened with each battery when you connected it to the holiday lights.

Battery A	Battery B

Why do you think there was a difference between the batteries?

Battery, Bulb, and Wire



Sketch and label a drawing that shows the different parts for the try where you were able to light the bulb.

Write a sentence that explains how energy was used in this investigation.

Wind Up Jumping Toy



Describe your observations for each try.

Toy #1 Two turns	
Toy #2 Five turns	
Toy #3 Ten turns	

Compare the three different trials.

Write a sentence that explains how energy was used in this investigation.

Toy Improvement Blueprint

Draw and sketch the toy you selected.

When I use this toy, how does it move?

For the toy to move, it needs energy. How is energy transferred to the toy as I use it?

If I could add an energy source to the toy, it would look like.....

The energy source would make the toy.....

If the energy source ran out of energy, the toy would.....

