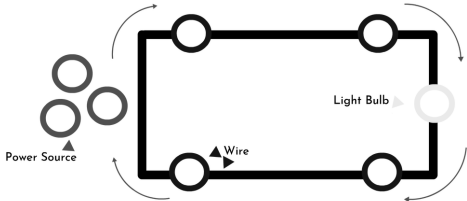


Science Electricity

Name: _____

The first box shows the a circuit with the power source flowing to a light bulb

1. In the second box, DRAW the same circuit with a short circuit.
2. In this third box, DRAW the same circuit with a fuse and WRITE how a fuse can prevent a short circuit
3. Use what you've drawn to DESCRIBE this process to another student!

1. 	2.	3.
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SHORT CIRCUIT

FUSES PREVENT SHORT CIRCUITS

1. DRAW 2 circuits and label your diagrams
 - a. In each circuit, make sure to include: 1 light bulb, 3 1.5V batteries, 1 switch
2. WRITE how many volts each circuit has
3. Use what you've drawn to DESCRIBE this process to another student!

BATTERIES IN SERIES

BATTERIES IN PARALLEL

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How many volts? _____

How many volts? _____

Science Electricity

1. WRITE the voltage needed to produce the desired Watts
(remember $W = V \times A$)

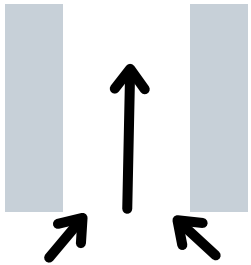
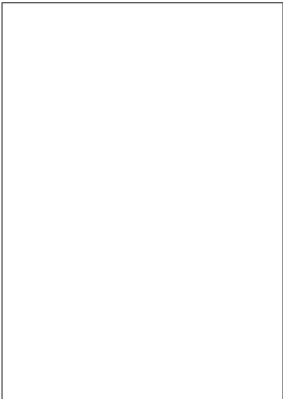
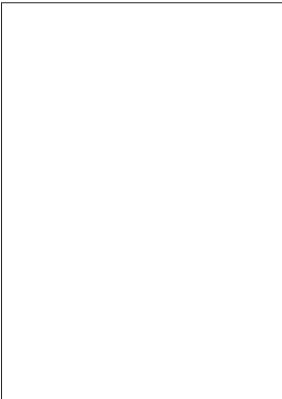
 1 amp of ____V = 100W	 4 amps of ____V = 100W	 3 amps of ____V = 150W
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1. DRAW the diagram using circles (as above) to represent the number of amps and voltage
2. WRITE the number of Watts produced

3 amps of 1.5V = ____W	1 amp of 10 000V = ____W	6 amps of 12V = ____W
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The first box shows the start of a hydroelectric generator

1. DRAW the next steps
2. Make sure to include a turbine and magnets spinning around copper windings
3. LABEL your diagrams
4. Use what you've drawn to DESCRIBE this process to another student!

1. Water is funneled through a dam 	2. 	3. 	4. Electricity is produced! 
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