The City School

Science
Class 4
Topic: Circuits And Conductors
Reinforcement Worksheet

Name:_____Sec:_____Date:_____

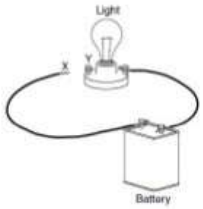
Q1. Choose the correct answer.

1. Which of these best completes the circuit?
   A. Rubber band
   B. Metal nail
   C. Leather shoe lace
   D. Cotton string

2. Which of these materials is a good conductor of electricity?

   A. Rubber
   B. Glass
   C. Metal
   D. wood

3. A fourth-grade class constructed this circuit. Which of these objects most likely made the light glow when connected to points X and Y?



   A. Plastic straw
   B. Cotton string
   C. Aluminum foil
   D. Rubber gloves

4. Which of these substances conducts electricity the best?

   A. Wood
   B. Brick
   C. Plastic
   D. Copper

5. The electrician wears rubber gloves for protection. The purpose of the rubber gloves is to

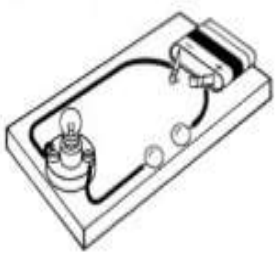
A. Keep the electrician dry
B. Create an electrical circuit
C. Produce electricity
D. Insulate the electrician

7. What material would be safest to use as an insulator to cover electrical wires?

A. Aluminum
B. Tin
C. Rubber
D. Water

8. Copper wire is often wrapped in plastic. Plastic is a good
A. Able to keep its shape
B. Insulator
C. Less expensive
D. Conductor

9. This instrument can be used to see if materials conduct electricity. Which of these groups contains items that could all conduct electricity to complete the circuit?
A. Rubber ball, plastic comb, nail
B. Paper clip, penny, screw
C. Cork, dollar bill, tweezers
D. Pencil, eraser, spoon



10. In which circuit will the bulbs glow brightest?
A. A simple circuit with one bulb and one battery
B. A simple circuit with one bulb and two batteries
C. A simple circuit with two bulbs and one battery
D. A simple circuit with two bulbs and two batteries

11. Why is electrical wiring usually made from copper?
A. Copper is shiny
B. Copper conducts electricity
C. Copper is non magnetic
D. Copper is good thermal conductor

Q2. State whether the following items work with mains electricity or battery.

_____

_____

_____

_____

Q3. Match column A with Column B and write the answer in Column C.

Column A	**Column B**	**Column C**
Circuit	Can burn you if you if you are not careful	
Mains Electricity	Joins the parts of a circuit	
Switches	Only works if there are no gaps	
Wire	Are used to circuit on and off	

Q4. Sara wanted to put lights in her doll house. She tried to build a circuit. She then realized that she had no wire.

a) Which of the following can she use? Tick 2

Foil	**String**	**Paper Clip**	**Sticky Tape**	**Straws**

b) Explain why Sara chose those materials?

_____

Q5. Fill in the missing spaces with the words from the light bulb below.

Electricity

An electricity supply comes from either the mains or _____. For an electric circuit to flow you must have a _____ circuit. Electricity can only _____ in one direction. To make a simple electrical _____ we need a power source, wire and other components such as bulbs, switches and _____.

Electrical devices such as ovens and televisions use the _____ supply. Electrical devices such as remote controllers and _____ use batteries.

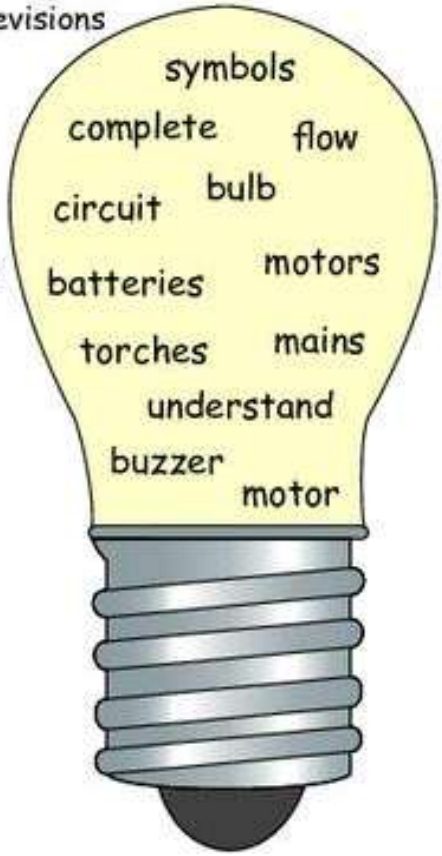
When we draw circuits we use _____ to draw them. This makes it easy to draw and _____.

Name these symbols:

 _____

 _____

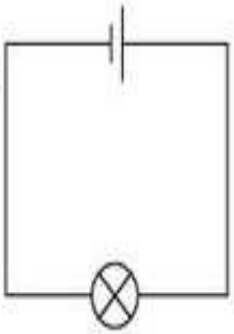
 _____



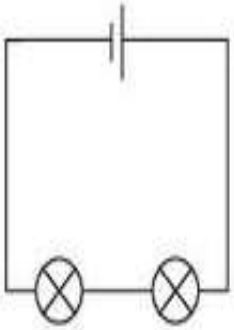
Q6.

Look at the circuits below and answer the questions:

1) a.

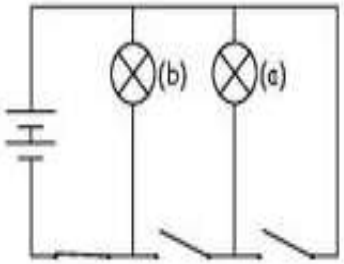


b.



Which diagram would produce the brightest bulb? _____

2)



Which bulb in this circuit would light up? _____

Why would the other bulb not light up?

_____

_____

3)

What would happen to the bulb in this circuit? _____

_____

_____