





Date: \_\_\_\_\_

## Chapter 8, Practice Worksheet ( 8.C.3 )

1. Label the electrical components.

			
switch	lamp	cell	wire

2. Answer with **true** or **false**.

a. The human body is a good conductor of electricity. ( true )

b. The most common metal used in wires is silver. ( false )

c. The switch is the source of the electric current. ( false )

d. Wires connect the electrical components of a circuit

together. ( true )

3. **Circle** the correct answer.

a. Ann wonders how the electric current is affected.

- When adding more cells to a circuit, the electric current \_\_\_\_.

**increases**

**decreases**

- When using longer wires in a circuit, the electric current \_\_\_\_.

**increases**

**decreases**

b. Using identical lamps and same number of cells but changing the

length of wires only, is an example of:

**classifying**

**fair testing**

**research**

4. Macy investigates electrical circuits.

She makes this circuit.

What does Macy do to make lamp **A** brighter?

Circle **all** the correct answers.

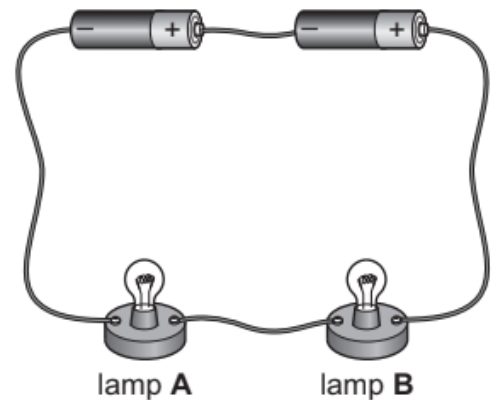
**add another cell**

add another lamp

remove a cell

**remove lamp B**

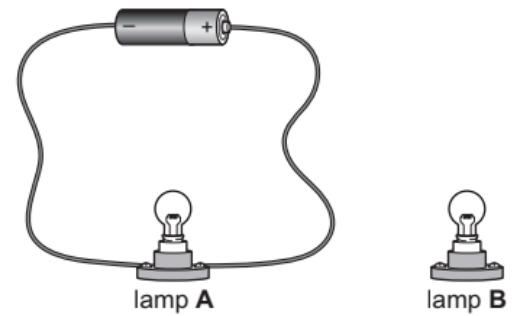
add a switch



5. Carlos makes this electrical circuit.

Lamp **A** is bright.

Carlos adds Lamp **B** to the electrical circuit.



a. Predict what happens to lamp **A**.

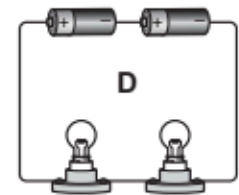
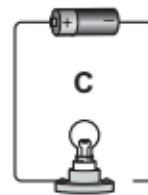
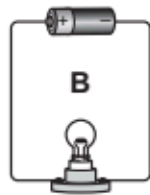
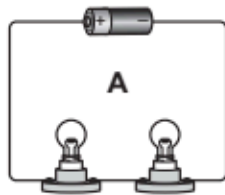
The brightness of lamp A will decrease.

b. Carlos wants to turn the lamps on and off.

Write down the name of the component he adds to the electrical circuit.

switch

6. Here are four electrical circuits.



a. One of the electrical circuits does **not** work.

Which electrical circuit does **not** work?

**Circle** the correct answer.

**A**

**B**

**C**

**D**

b. Why are the wires in the electrical circuit **made of** the metal copper?

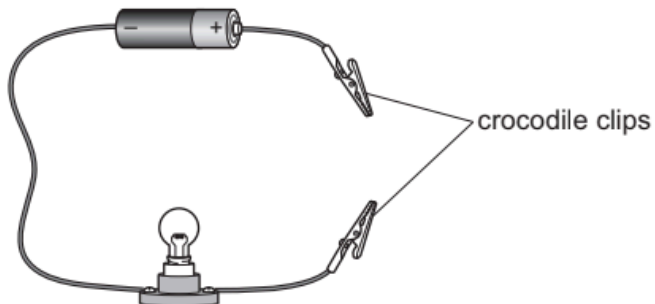
Copper is an electrical conductor it allows electric current to pass through.

c. Why are the wires in the electrical circuit **covered** with plastic?

Plastic is an electrical insulator. It protects from electric shocks.

7. Alia makes this electrical circuit.

Alia completes the circuit by attaching both the crocodile clips to different materials.



a. Complete the table to predict her results.

The first one has been done for you.

material	lamp lights (yes or no)
wood	no
paper	no .....
aluminium	yes .....
steel	yes .....
rubber	no .....

b. Alia writes a conclusion from her results.

Complete her conclusion.

The lamp lights because some materials are electrical conductors.

The lamp does **not** light because some materials are electrical insulators.

8. Fill in the blanks.

electrical insulators : materials that do not allow the electric current to flow through easily

control set-up : set-up with no variables tested

brighter : shining with more light

electrical conductor : materials that allow electric current to flow through easily

dimmer : shining with less light

switch : an object that can open or close a circuit