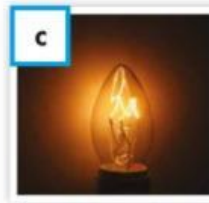
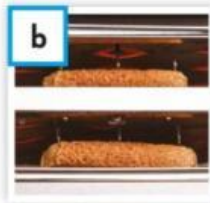


Student's English name: Class:

- 1 Which photo does each sentence refer to? Match the sentences (1–5) with the photos (a–e).



- 1 This **resistor** functions with an "on" and "off" button. It's used to toast bread.
- 2 If the **filament** in a light bulb is broken, you need to buy a new bulb.
- 3 We have four power strips in our house so that we don't waste **phantom energy**.
- 4 It's the **device** I use to do research on the Internet and write my essays.
- 5 It's a useful **power source**, but it's important to recycle it.

b

I. Circuits (page 95)

2. Read and fill in the gaps.

series circuit

parallel circuit

energy sources

switch

resistors

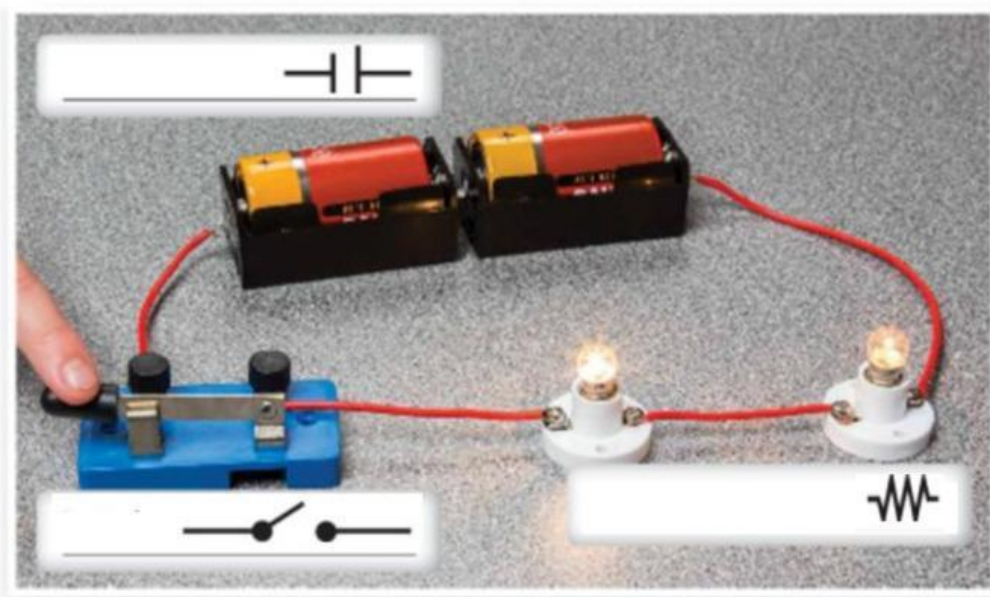
- 1) Batteries and electrical outlets are _____.
- 2) A circuit also has _____ such as light bulbs or machines.
- 3) A _____ can open or close a circuit.
- 4) In a _____, an electric charge can only flow in a single loop.
- 5) A _____ has two or more paths through which electric charges may flow.

3. Look at the symbols and label parts of the circuit.

resistors

switch

energy source



II. How does energy change form? (pages 96-97)

4. Read and match.

Filament

Phantom energy

Light

Resistors

Power strip

a) Televisions, computers, and light bulbs that use the energy in a circuit.

b) Most resistors transform electrical energy to heat and ____.

c) It is the energy that flows through electrical devices, even when they are turned off, but still plugged in.

d) It is a thin, coiled wire in a light bulb that can get very hot without melting.

e) When you are not using the electronics, switch off the ____.

5. Answer the questions.

1. How can energy transform, or change form? Give an example.

2. Using a power strip can save your family money and is good for the environment. Why?

3. What part of a circuit is used to make it open?

III. What is motion? (pages 101-104)

6. Read and fill in the gaps.

motion	reference point	relative motion	frame of reference
	unbalanced	force	balanced

- 1) _____ is a change in the position of an object.
- 2) The change in one object's position compared with another object's position is called _____.
- 3) A _____ is a place or an object used to determine if an object is in motion.
- 4) How an object seems to move depends on your _____.
- 5) A _____ is any push or pull.
- 6) The forces that are the same size and that are applied in opposite directions are _____.
- 7) The forces that are *not* the same size and that are applied in opposite directions are _____.

7. Answer the questions.

1. What can be a reference point for a moving car? Give an example.

2. How can a force affect motion? List five ways.

A force can make an object:

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____

8. Complete the statements.

1. A bike goes faster when _____.
2. If you stop pedaling, _____.
3. It changes direction when _____.

