

Activity 2: Energy Description of Interactions

Name _____

Date _____

Class _____

Key Question

Explore Your Ideas

Part A: Energy Source, Energy Receiver, Energy Transfer, and Energy Diagrams

The Flashlight and Eye Interaction

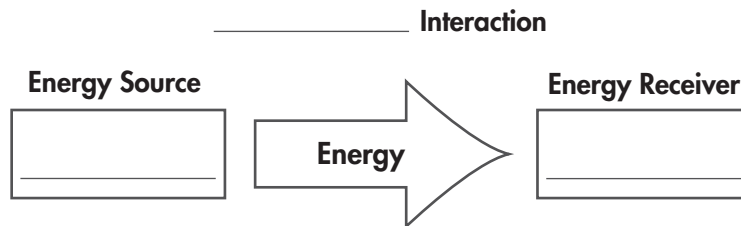
1. What is the *type of interaction*? (You should choose from *magnetic, electric charge, electric circuit, mechanical, or light.*)

2. What is the *evidence* for the interaction?

3. Which object is the *energy source*? (Where did the energy for this interaction come from?)

4. Which object is the *energy receiver*? (Where did the energy for this interaction go to?)

Complete the energy diagram for the flashlight and eye interaction.



Evidence: _____

The Cell and Bulb Interaction

Answer Questions 1–4 again, and complete the energy diagram.

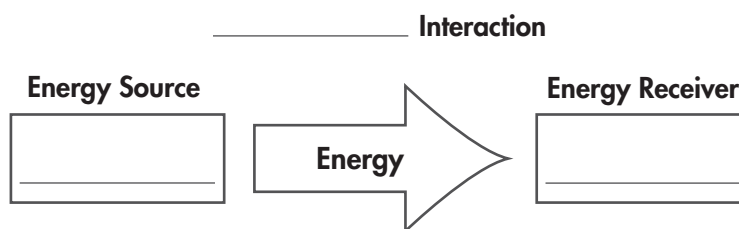
1. What is the *type of interaction*? (You should choose from *magnetic*, *electric charge*, *electric circuit*, *mechanical*, or *light*.)

2. What is the *evidence* for the interaction?

3. Which object is the *energy source*? (Where did the energy for this interaction come from?)

4. Which object is the *energy receiver*? (Where did the energy for this interaction go to?)

Complete the energy diagram for the cell and bulb interaction.



Evidence: _____

Part B: Exploring Electrical Energy Sources and Receivers

The Cell and Receiver Interaction

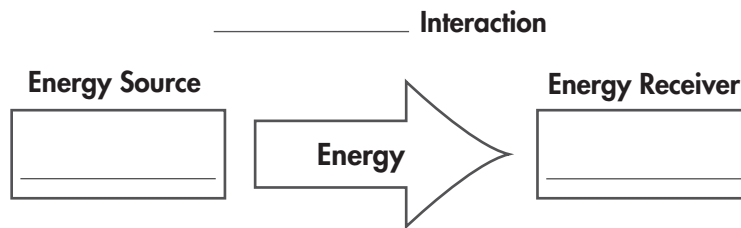
Complete *three* examples of energy transfers using a different energy receiver for each one.

EXAMPLE 1

5. Decide the type of interaction involved and write it down.

6. Draw a diagram of the circuit.

7. Complete an energy diagram.



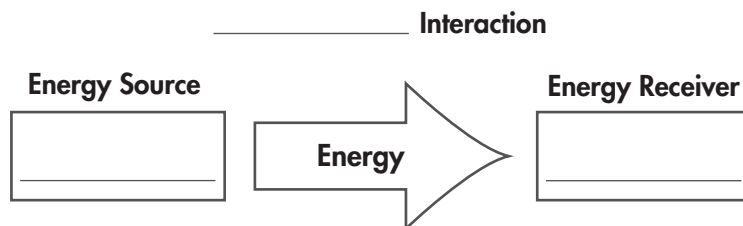
8. Decide what evidence suggests there is an interaction and write that down.

EXAMPLE 2

5. Decide the type of interaction involved and write it down.

6. Draw a diagram of the circuit.

7. Complete an energy diagram.



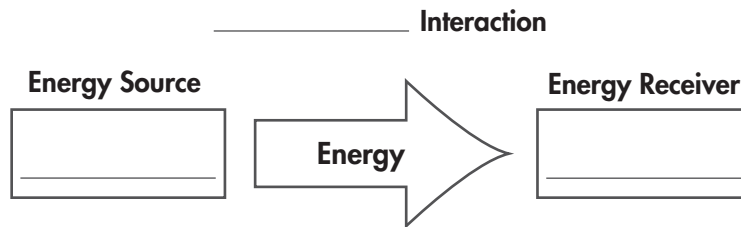
8. Decide what evidence suggests there is an interaction and write that down.

EXAMPLE 3

5. Decide the type of interaction involved and write it down.

6. Draw a diagram of the circuit.

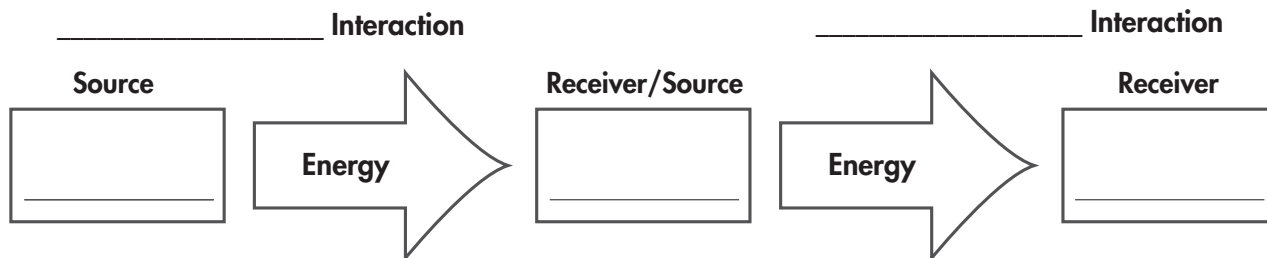
7. Complete an energy diagram.



8. Decide what evidence suggests there is an interaction and write that down.

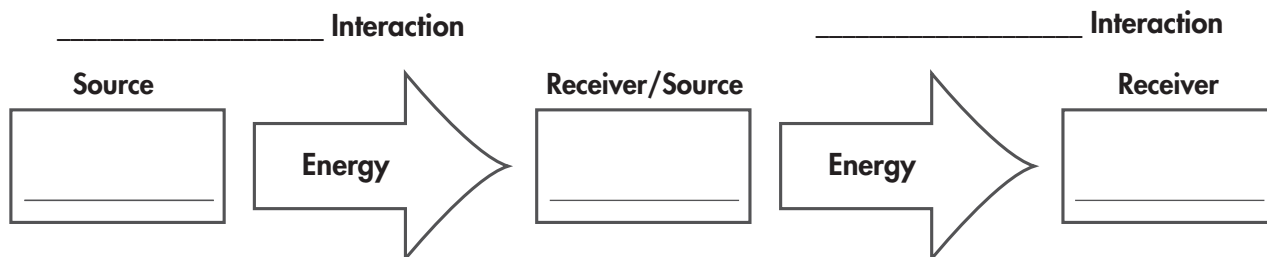
Part C: Chains of Interactions

9. Complete the following energy diagram for the hand-cranked generator connected to the light bulb.



Evidence: _____

10. Complete the following energy diagram for the solar battery connected to a motor with a fan blade.



Evidence: _____

Make Sense of Your Ideas

1. When describing an interaction between two objects, what information do you need to know or what questions do you need to answer?

Our Consensus Ideas

The key question for this activity is:



How can you describe interactions in terms of energy?

1. Write your best answer to the key question.

2. Write the class consensus answer.
