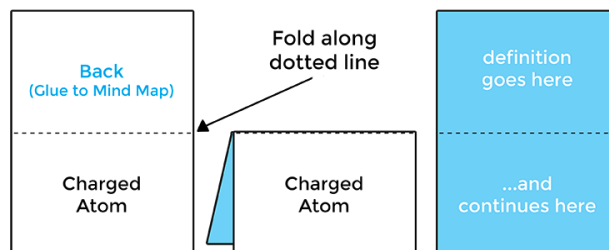




Evidence of Energy Transfer Lesson 1: *The Solve* Student Guide

I. Vocabulary Warm-up

1. Using the materials at your table, cut out your vocabulary cards along the **solid lines**. Note: Do not cut the cards at the dotted lines.



2. Fold the cards at the dotted lines.

3. Write the definition of the term on the inside of the card using the definitions below.

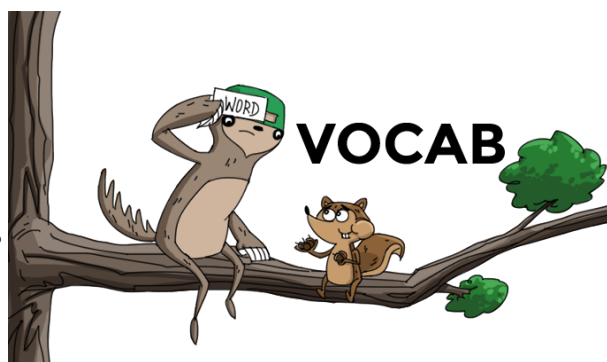
4. Use the clues from the Mind Map images, definitions, and vocabulary terms to place the cards in the correct location on the Mind Map, explaining your thinking to group members as you go.

5. When you're ready to glue or tape, raise your hand so you can check your Mind Map with your teacher.

6. Use glue or double-sided tape to connect the back of the vocabulary card to the correct place on the Mind Map.

7. Use your completed Mind Map to discuss these questions with your group:

- a. What was the problem JoJo and Felix were trying to solve?
- b. What types of energy transfers did JoJo and Felix observe in *The Solve Mystery*?
- c. Predict the types of evidence that can be gathered to prove that these types of energy transfer exist.

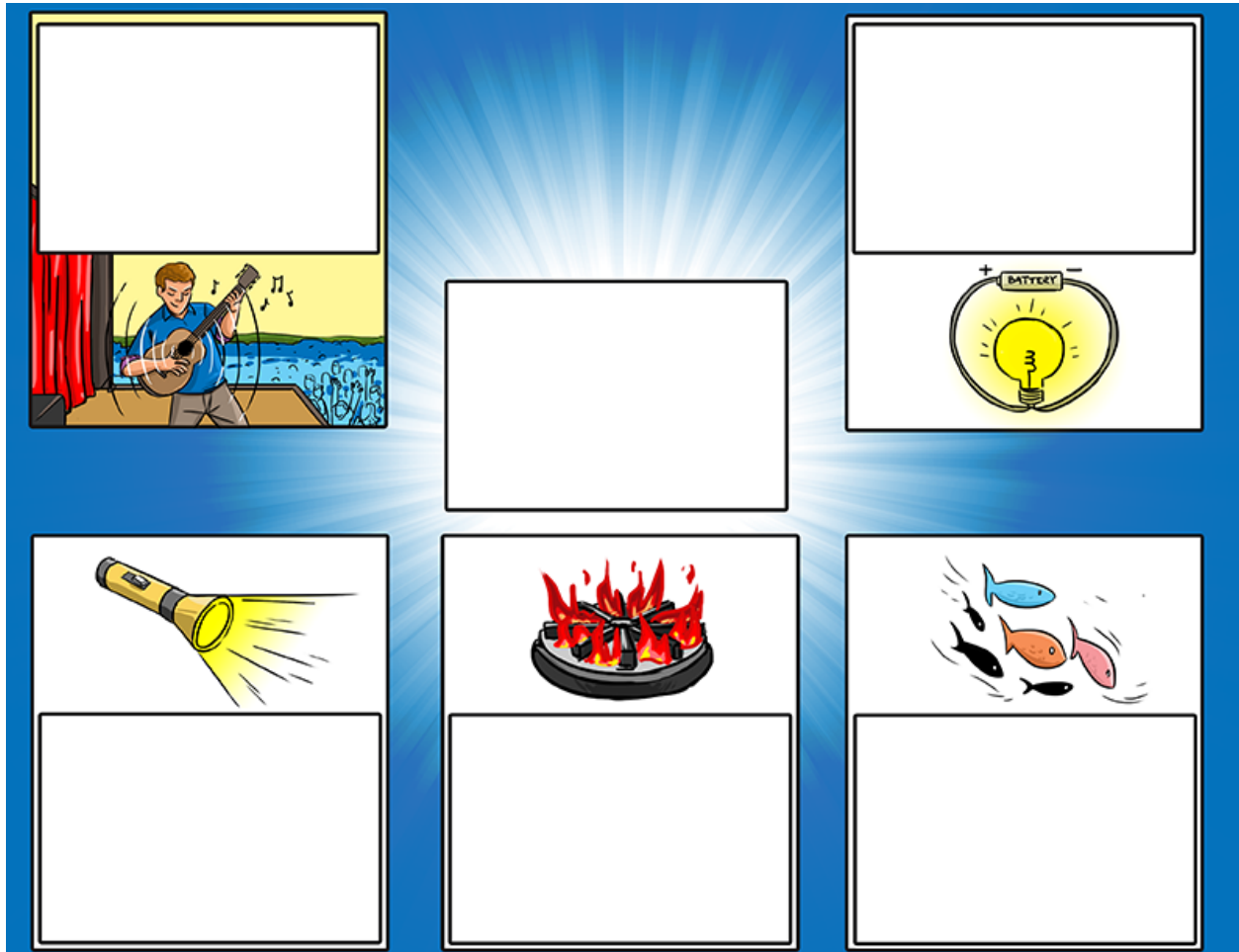




MOSA MACK SCIENCE

STUDENT GUIDE

Mind Map





MOSA MACK SCIENCE

STUDENT GUIDE

| | | |
|----------|-------|--------|
| | | |
| Sound | Light | Energy |
| | | |
| Electric | Heat | Motion |

Vocabulary

- Energy: The ability to do work
- Light: A form of energy that we can see
- Sound: A form of energy that we can hear
- Electric: A form of energy created by the movement of electric current
- Heat: A form of energy responsible for producing heat
- Motion: A form of energy in objects that are moving



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II. Read/Watch Mosa Mack

Either on your own, in a small group or as a class (your teacher will let you know), read or watch Mosa Mack's mystery on Evidence of Energy Transfer. Then, fill out the questions below. Include a page number or time code in your answer as evidence of where you found your answer.

Name: _____

Date: _____

Episode Questions

1. What problem are Felix and JoJo facing?
2. How did Betty the Raccoon try to help the boys communicate?
3. Explain how Felix and JoJo tried to use sound waves to communicate with one another.
4. How did JoJo attempt to use light energy to communicate with Felix?
5. Why did the heat energy method of communication fail?
6. How did JoJo create electric current to send a message to Felix? What materials did he use?
7. What did Felix and JoJo figure out? How did they help to end the family feud? Explain.



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III. Quiz: Check for Understanding

Complete the exit ticket below or you can take the quiz online!

Name: _____

Date: _____

1. Sound energy can be produced by which of the following objects below:
 - a. Drum
 - b. Flashlight
 - c. Copper wire
 - d. Battery
2. Which of the following energy types travels in waves?
 - a. Sound energy
 - b. Light energy
 - c. Electrical energy
 - d. Both A and B
3. Heat would be present in which example(s) below?
 - a. A stove heats up a pot of water
 - b. The sun melts an ice cream cone on a hot summer day
 - c. A flame heats a log in a fire
 - d. All of the above
4. There are many types of energy, including:
 - a. Heat
 - b. Sound
 - c. Light
 - d. All of the above
5. When a copper wire is connected to a battery and light bulb, the light bulb glows brightly. Which type of energy transfer occurs in this process?
 - a. Heat energy → Light energy
 - b. Sound energy → Electric energy
 - c. Electric energy → Light energy
 - d. Light energy → Electric energy
6. True or False: Energy can change from one form to another.
 - a. True
 - b. False