Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Number:\_\_\_\_\_\_\_\_\_\_\_\_\_

Homeroom Teacher:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Unit 1: Sources of Energy Study Guide**

**Study Guide Due:\_\_\_\_\_\_\_\_\_\_\_\_**

**Test Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Directions: Please use your OneNote, textbook, and any class handouts to complete this study guide by the due date.

Sections 1: Define the words and terms below.

|  |  |
| --- | --- |
| Word | Definition |
| Mass | The amount of matter within an object. |
| Energy |  |
| Motion |  |
| Energy of motion |  |
| Transfer |  |
| Sound energy | Energy that can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Vibration | To move back and forth very \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| Transform |  |
| Wave | Carries energy from one place to another |
| Thermal energy | Energy of moving particles that make up matter; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Heat |  |

Sections 2: We talked about baseball and energy a lot this unit. Circle the correct answer about baseball in each statement below.

1. When a pitcher throws a ball the pitcher or ball transfers energy to the pitcher or ball.
2. When a player catches a baseball what is happening to some of the ball’s energy when it hits the players baseball mitt?
   1. It changes to sound energy
   2. The energy is destroyed
3. In baseball, which object can move energy from place to place:
   1. The baseball
   2. Home plate

Section 3: Match the situation with the type of energy

\_\_\_\_\_. wind blowing a grain of a. Light energy

\_\_\_\_\_. Sun’s energy through space b. Energy of motion

\_\_\_\_\_. Dog tags causing the air around them to vibrate c. Sound energy

Section 4: Possible Essay, Open Ended, or Multiple Choice Topics. Answer the following questions using as much detail and evidence as possible.

* How do vibrations allow us to hear sound energy?
* What is the difference between heat and thermal energy?
* Does an object’s weight give it or energy?
* When something is rolling down a hill will it have more or less energy?
* Flashlights have chemical energy that transforms into light energy

* When to objects collide what changes?