

Worksheet: Energy #1

Fill in the blanks:

1. Matter is made of _____
2. If something has mass and volume it is called _____
3. Characteristics are called _____.
4. Energy is _____ made of molecules.

Matching:

Chemistry	study of matter and its properties
Ecology	study of matter and energy
Astronomy	study of living things
Physics	study of weather
Meteorology	study of stars

List the 4 properties of matter and instrument used to measure it:

_____	_____
_____	_____
_____	_____
_____	_____

Worksheet: Energy #2

Is it a solid, liquid, gas, or plasma?

1. It has a definite shape and volume
2. Its particles are tightly packed
3. Its particles are spread out a lot
4. Its particles are close to each other, but not packed tightly
5. Its particles vibrate a little, and the particles slide around each other.
6. Its particles vibrate a little.
7. Its particles vibrate a lot and move around a lot.
8. It takes the shaped of its container.
9. It will fit in a container, but only if it is closed.

List three:

List three solids in your classroom.

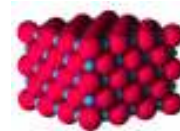
List three gasses in your classroom.

List a liquid in your classroom.

Answer:

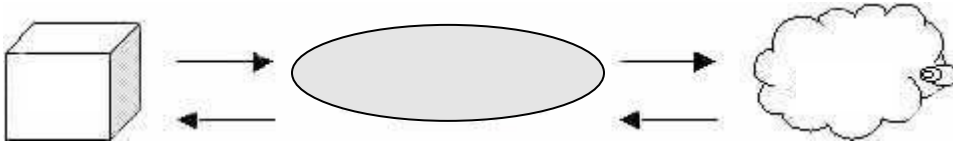
Can you graph the relationship of kinetic energy vs. particle movement?

Label the following as solid, liquid, or gas:



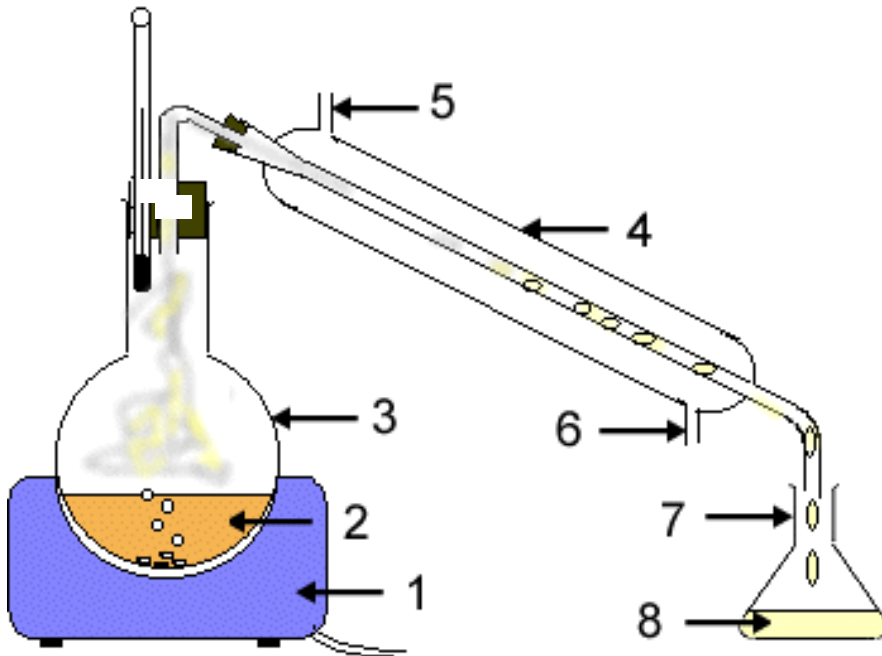
Worksheet: Energy #3

The diagram below shows the three primary states of matter. Answer the questions which follow:



1. How many phases of matter are shown above? _____
 2. How many phase changes are shown above? _____
 3. The top left arrow represents which phase change? _____
 4. The bottom left arrow represents which phase change? _____
 5. The top right arrow represents which phase change? _____
 6. The bottom right arrow represents which phase change? _____
 7. Which phase changes require and increase in energy? _____
 8. Which phase changes require a decrease in energy? _____
 9. How do the particles of the gas differ from the solid? _____
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10. Describe the changes in particle movement & vibration as a substance moves from the state of matter on the left to the state of matter in the middle to the state of matter on the right.

Worksheet: Energy #4



Examine the diagram above and answer the following questions:

1. What is happening at step 1? What is the apparatus doing at step 1?
2. What phase of matter exists at step 2?
3. What phase of matter exists at step 3?
4. What did Mr. Z do at #5?
5. What did Mr. Z do at #6?
6. What is happening at step 4?
7. What phase change occurs at step 7?
8. What phase change occurs between step 2 and step 3?
9. Could you drink the output at step 8? EXPLAIN.

Worksheet: Energy #5

Examine the diagram below, and answer the questions which follow?

1. Label the melting point.
2. Label the freezing point
3. Label the boiling point
4. Label the condensation point.
5. Label where the three states of matter would be on this diagram.
6. What is the boiling point temperature?
7. What is the freezing point temperature?
8. As heat is added between minutes 3 and 7, what happens to the temperature?
9. What are the phase changes that this diagram shows?

