

Test next week!

Name: Key

Energy Unit Review Sheet

Study Guide

I can identify the system vs. surroundings in a situation or model.

1. Identify the system and the surroundings in the following scenarios:

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a. When putting ice in a glass of water, one falls to the floor and melts.

System = ice Surrounding = floor, air, universe

b. A glass of cold apple cider is placed in the microwave to warm.

System = apple cider Surroundings = glass, microwave, air, universe

c. Hot steam from the shower condenses on the mirror in the bathroom.

System = hot steam Surroundings = mirror, bathroom, universe

I can model the exchange of energy between the system & surroundings.

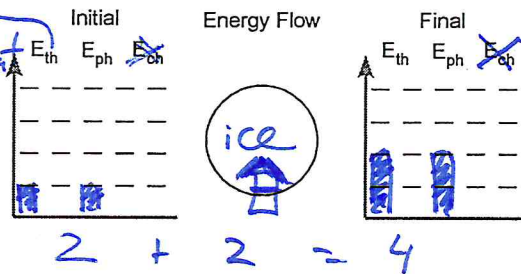
2

2. Complete an energy bar chart for each of the following scenarios:

a. When putting ice in a glass of water, one falls to the floor and melts.

Phases
Solid = 1
Liquid = 2
Gas = 4

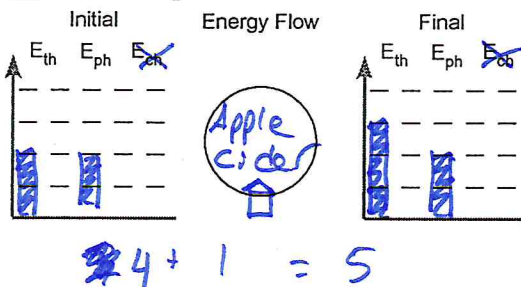
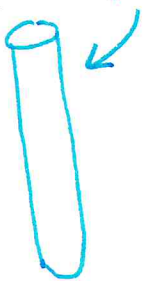
Thermal = Heat
Cold = 0-1
Room = 2-3
Hot = 4



Endo.

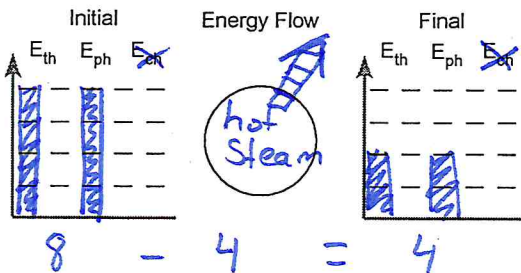
b. A glass of cold apple cider is placed in the microwave to warm.

Test tube



Endo.

c. Hot steam from the shower condenses on the mirror in the bathroom.



Exo.

I can predict the transfer of energy between objects of different temperature due to particle collisions.

3. Describe how the energy transfers between the hot steam and the mirror in the scenario in 2c above.

Hot steam is a gas with high energy. When it touches the cool mirror it transfers its energy. Then the hot steam condenses to a liquid and we see water droplets on the mirror. The energy transferred to the mirror + surroundings.

I can apply the law of conservation of energy to a system.

4. What is the law of conservation of energy?

All energy is saved. It is transferred from one source to another.