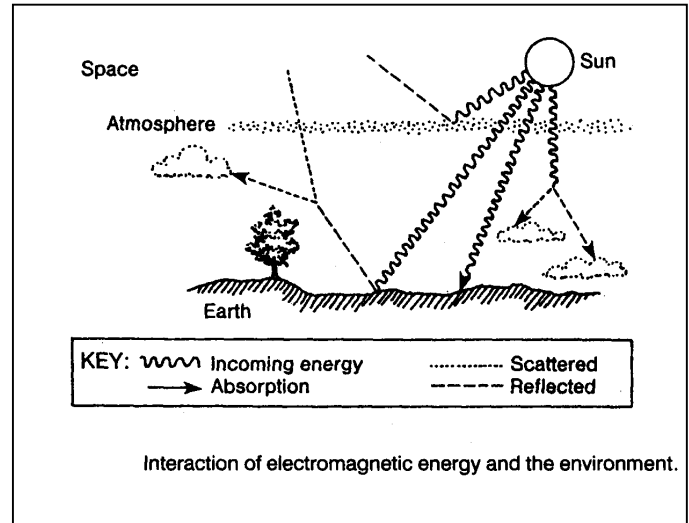


ENERGY – Interaction with Matter & Transfer

Name _____

DIRECTIONS: give the best answer to the following questions.

- When EM energy comes in contact with a material, it can be _____, _____, _____ or _____.
- "Refracted" means _____.
- "Reflected" energy _____ an object.
- "Scattered" means _____.
- "Absorbed" means _____.
- Good absorbers of EM energy are also good _____ of EM energy.
- When light is absorbed by Earth, it is "re-radiated" back into space as infrared (or heat), which is a _____ wavelength than visible light.
- Good absorbers and radiators have _____ colors and _____ surfaces.
- Besides the Sun, the second most important source of energy for the Earth is _____.
- Give the three ways that energy is transferred, or moved, through the environment.



- Which method of energy transfer occurs through empty space (or air)? _____
- The transfer of energy by movement through fluids (liquids and gases): _____
- The transfer of energy by atom collisions in solids: _____
- In the diagram at right, **draw 2 convection cells** as they should appear in the water. Also, **label where the water is in the process of becoming less dense**.
- When water at the bottom is heated, it becomes (more / less) dense. This makes it (rise / sink).
- What would the convection flow be like if the burner were moved to under the left side of the beaker?

- List three major Earth processes driven by convection.

- Which type of energy transfer is most effective in solids? _____
- Which type of energy transfer is most common in fluids? _____
- Which type is most effective in gases or outer space? _____

