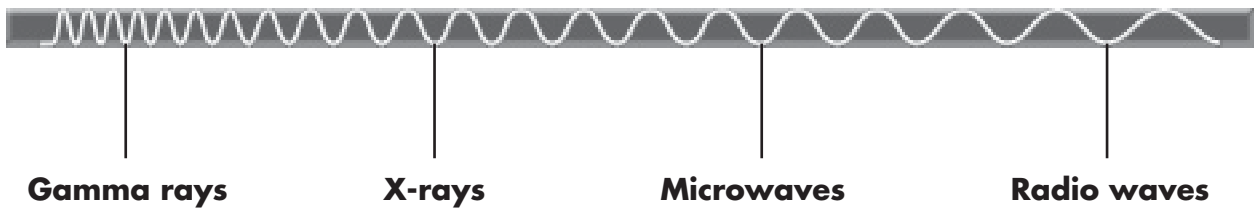


What is light energy?

Light is a part of the electromagnetic spectrum. Light travels in waves that have many frequencies and wavelengths. The diagram below shows the electromagnetic spectrum. The shortest wavelengths are at the far left. The longest wavelengths are at the far right.



Answer these questions about light energy.

1. How does light travel?

2. How do the waves of the electromagnetic spectrum differ?

3. What are the longest wavelengths in the electromagnetic spectrum?

4. Are gamma rays shorter or longer than X-rays?

5. Are radio waves shorter or longer than X-rays?

What are conduction, convection, and radiation?

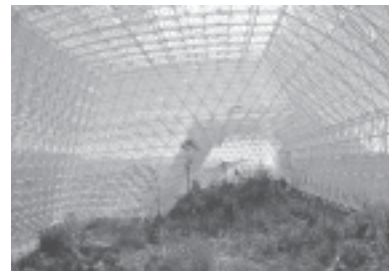
Thermal energy naturally flows between substances of different temperatures. The flow of thermal energy is heat. Heat moves in three ways. Conduction is the transfer of heat between objects that are in contact. Convection is the transfer of heat by a moving liquid or gas. Radiation is the transfer of heat by electromagnetic waves.



Conduction A volcano's lava heats the water it touches.



Currents of warmed water carry heat through the tank by **convection**.



Radiation from the Sun warms this greenhouse.

Answer these questions.

1. How does thermal energy flow?

2. What word is used to describe the flow of thermal energy?

3. Does a light bulb heat the air around it by conduction, convection, or radiation?

4. How does a pan on a stove get hot?

5. How does warm water in the ocean carry heat?
