Gamma Rays:

Rays that carry a lot of energy. Outer space is the biggest gamma-ray producer!





The Light You See

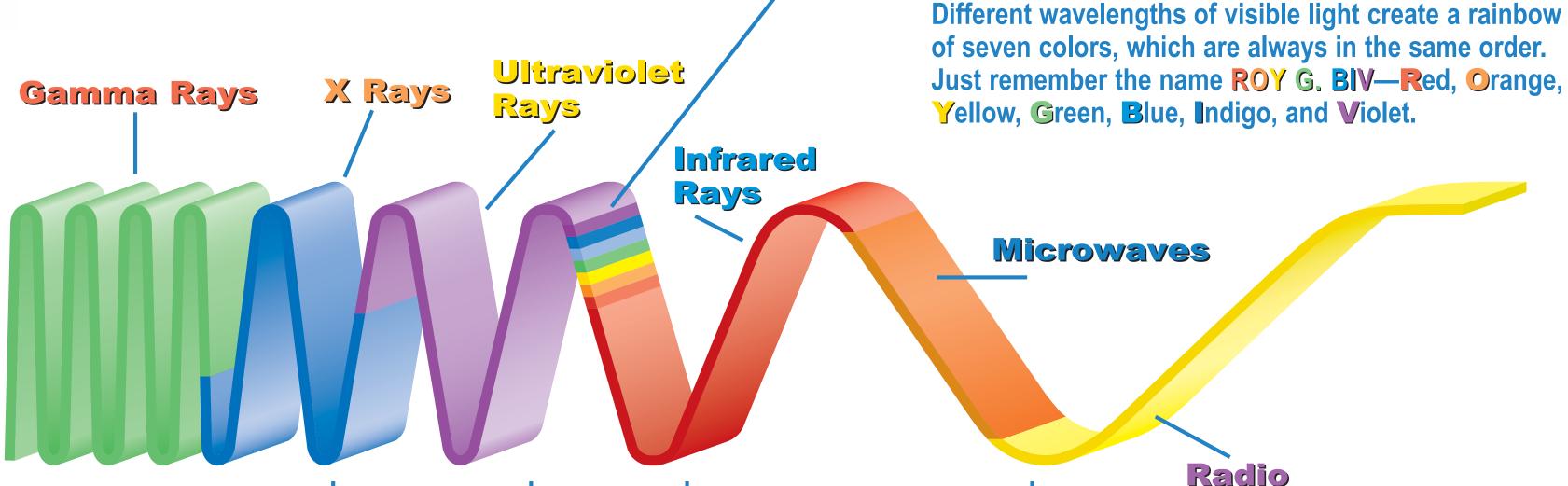
The electromagnetic spectrum is filled with different waves of energy, but visible light is the only wave that we can see.

X Rays:

These rays are used to take pictures of teeth, bones, and organs inside the body.

Ultraviolet Rays:

These rays are found in sunlight and are absorbed by the earth's ozone layer, which protects humans.



Short wavelength

Long wavelength

1864

Visible Light:

The only part of the spectrum that humans can see.



They carry the sun's heat to the earth and make human skin feel warm.

Microwaves:

Rays that are short and easy to direct. The energy of microwaves is converted into heat. most commonly used to cook food.

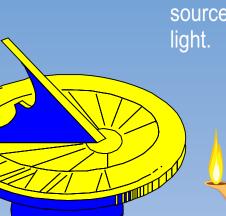
Radio Waves:

These waves carry music to your radio and are also emitted by stars and gasses in space.

Light Up History!

Early humans begin using torches and campfires to light up the night.

Sundials are time using the pottery are shadows.



Oil lamps invented to tell made out of location of sun invented as a less expensive source of

600 в.с.

lighthouses is built, in the harbor of Alexandria Egypt, to signal to ships in the

Sea.

280 B.C.

One of the first The first out of Mediterranean

400 The candle is invented.

lanterns made

Sir Isaac Newton publishes Opticks, a book about light and the light spectrum.

1747

Benjamin

1800 Infrared rays

are discovered by astronomer William Herschel.

1801 Ultraviolet

light is

Kerosene lamps light homes in New York City.

1879

Visible Light:

Thomas Irving Edison the GE invents first practical lightbulb.

develops the first electric gas-filled lamp.

1913

1930

Waves

Thomas Langmuir of Edison's experiments Research Lab with plastic filaments lead to the first GE Plastics

1960

Dennis Gabor coins the term hologram to describe threedimensional images created by department. splitting a beam of light

LED (Light Emitting lightbulbs light up from a laser electronic gadgets. in two.

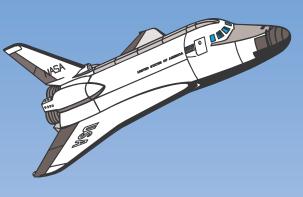
1962

Diodes) are invented by GE. LEDs are tiny colored often used to

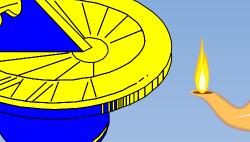
2000

High-intensity The 125th anniversary of bulbs are used on the the lightbulb. space shuttle.

2004









portable horns are developed.

1704

Franklin begins to study electricity and invents the lightning rod.

discovered by German physicist Johann Wilhelm Ritter.





