

## Light from the Sun

1. What type of radiation does the sun emit?  
*short wave*

The radiation passes through the Earth's *atmosphere* and hits the Earth's surface

Some of the radiation that hits the Earth's surface does not bounce back. This means it has been *absorbed* / reflected / transmitted

2. When the radiation hits the Earth's surface/atmosphere some of it bounces back into space. This means it has been *absorbed* / *reflected* / transmitted

3. When radiation passes through something this means that it is *absorbed* / reflected / *transmitted*

4. This radiation warms the Earth's surface and the heat energy is radiated back into space.  
This is called *long wave* radiation.

## The Greenhouse effect

What gases in the atmosphere stop the heat from escaping?

- i. CO<sub>2</sub>
- ii. CH<sub>4</sub>
- iii. N<sub>2</sub>O
- iv. H<sub>2</sub>O
- v. CFCs
- vi. O<sub>3</sub>

This is because these gases

*(absorb/reflect/transmit)* the heat energy?

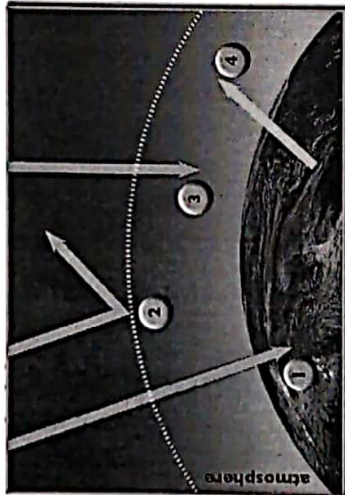


Which gas has increased due to humans?

*CO<sub>2</sub>*

What would earth be like without the greenhouse effect?

*much colder*

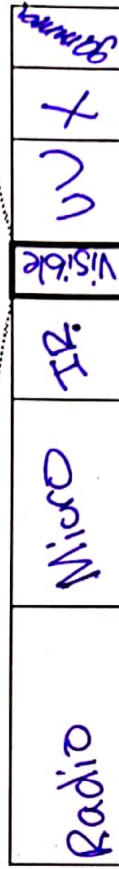


## Electromagnetic Spectrum

What is the electromagnetic spectrum?

*all the forms/types of light*

R O Y G B I V



*long* wavelength  
*low* frequency  
*low* energy

*short* wavelength  
*high* frequency  
*high* energy