

## Environment changes, climate change?

There are many factors that could affect the Earth's climate by changing the amount of energy that flows into and out of the system. Think about the ones listed and try and decide which ones affect the amount of energy coming in from the Sun, which affect the amount of energy that the Earth radiates away and which affect both.

Factor	If this factor was increased, what would be the effect on...	
	the amount of radiation from the Sun being absorbed by the Earth and why?	the amount of radiation being emitted from the Earth and why?
Cloud cover (i.e. H <sub>2</sub> O in the atmosphere as water vapour)		
Ice/ snow cover		
Amount of CO <sub>2</sub> in the oceans		
Dust/ pollutants in the atmosphere		

Amount of CO <sub>2</sub> in the atmosphere from burning carbon		
Life producing CO <sub>2</sub> (respiration)		
Life absorbing CO <sub>2</sub> (photosynthesis) – amount of plant cover		

If the amount of energy coming into the system is greater than the amount leaving then the Earth will warm up and vice versa.

1. Which of the factors will be affected by a change in the Earth's temperature?
  
2. Which will change to make this effect even bigger (positive feedback) and which will change to negate the temperature change?

positive feedback factors

negative feedback factors

3. Which of the factors are directly influenced by humans?