These gases cause ______________ & ________________

Other greenhouse gases are: __________________ & __________________

These gases cause climate change because of their ability to absorb ____________ wave radiation & their increasing ________________

Energy flows through a food web but only 10% gets to the next trophic level. E.g. Earthworm → Backbird

Explain how energy is lost because:

a) it is not assimilated = __________________________

b) it is not absorbed = __________________________

c) of heat loss = __________________________

Some energy rich molecules are absorbed but then used in other processes.

Some molecules pass through the digestive system in food and faeces.

Many of the reactions of metabolism create some waste heat. This may be useful for keeping warm but it is lost from the food web.

Explain how to draw a pyramid of energy like the one shown on the left.

First collect data for the amount of energy in each trophic level. Work out the scale for the graph. Draw the horizontal bar for the producers. Centre the next bars in the middle. Draw the primary consumers bar, then the secondary and tertiary consumers.

Carbon cycle processes which release CO2 into the atmosphere:
1. Respiration
2. Combustion
3. Erosion

Carbon flux is the flow of carbon from one reservoir to ________________

Label the carbon reservoirs (and processes if possible)

Sketch the Carbon Cycle

In the greenhouse effect diagram (left)

What do the arrows represent?

A: long wave radiation (heat) being lost ______________________________

B: Long wave radiation trapped by ______________________________

What is the role of each of the following in climate change?

• Combustion of fossil fuels increases the concentration of CO2 in the atmosphere by ________________

• Rising atmospheric CO2 conc. traps more long wave radiation in the atmosphere by ________________

• Coral reefs remove CO2 from water and form ________________