IB Biology Topic 4 - Ecology Revision Sheet

Definitions:

- An autotroph is _____
- A heterotroph is _____
- Habitats are _____
- Ecosystems are _____
- A community is _____
- A trophic level is _____

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 = _____

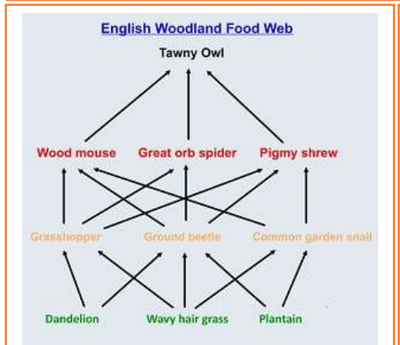
c) of heat loss = _____

Arrows in a food web show

_____

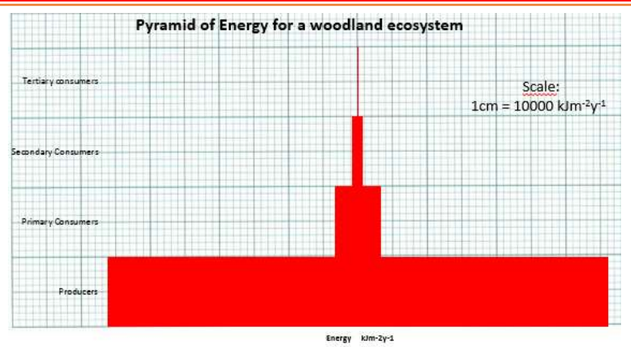
The four trophic levels and the type of nutrition are

1. _____Producers_____ autotrophic nutrition
2. _____ _____
3. _____ _____
4. _____ _____



Compare the roles of plantain, grasshopper and wood mouse in the English woodland food web.

_____
_____
_____
_____
_____
_____
_____



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

_____
_____
_____
_____
_____
_____

Two types of decomposers are

_____ or _____

Explain why nutrients must be recycled.

_____

Why is energy not recycled?

_____

What does kJ m^{-2} yr^{-1} stand for?

Carbon cycle processes which release CO2 into the atmosphere:

1. _____
2. _____
3. _____

Carbon flux is _____

Sketch the Carbon Cycle

CO_2

Label the carbon reservoirs (and processes if possible)

Carbon cycle processes which absorb CO2 from the atmosphere:

1. _____
2. _____
3. _____

A carbon sink is _____

Climate change:

The most significant greenhouse gases are:

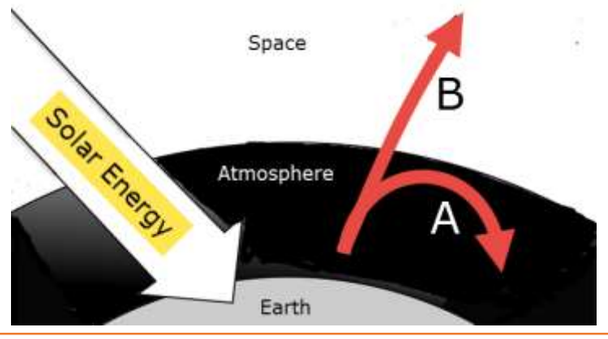
_____ & _____

Other greenhouse gases are:

_____ & _____

These gases cause climate change because of their ability to absorb

_____- wave radiation & their increasing _____



In the greenhouse effect diagram (left)

What do the arrows represent?

A: _____
_____

B: _____
_____

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

- Combustion of fossil fuels
  _____
- Rising atmospheric CO_2 conc.
  _____
- Coral reefs
  _____