

Extinction Homework Exercise 1

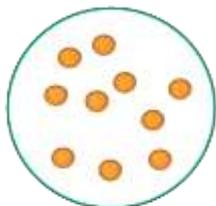


1. Copy and complete the following passage:

The _____ Effect refers to the layer of _____ gas surrounding the planet. This traps _____ energy and allows life to survive on Earth. However, this layer is now getting _____ due to an increase in levels of _____ gas, caused by more _____ and by people cutting down more _____. This is now leading very quickly to a _____ change, which can affect plant and animal life on Earth.

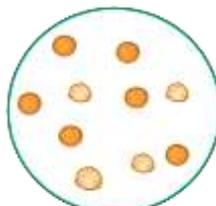
2. The Woolly Mammoth is one animal which scientists believe went extinct due to changes in climate. This may be due to different plants growing as the temperatures changed.

Using the evidence presented below, give **details** as to how this evidence supports this theory and **explain why** this may have caused the mammoths to go extinct. *Remember that mammoths were large, hungry animals.*



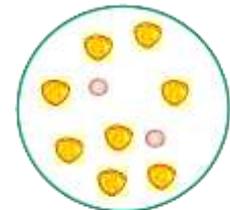
15,000
years old

Lots of grass pollen found.



13,000
years old

Some grass pollen found
but now some Elm tree
pollen too.



10,000
years old

No grass pollen found at
all. Birch and Hazel tree
pollen only.

3. We can use ice core samples to investigate how gas levels in the **atmosphere** have changed over thousands of years.

a) Explain in **detail** how ice cores can provide us with this information.

(Remember the experiment you carried out in class. Include a labelled diagram if you think it will help you explain)

b) Draw a **pie chart** to show the percentages of the 4 main gases in our current atmosphere. (Draw round a cup to keep your work neat and tidy)

c) Carbon dioxide levels naturally rise and fall over thousands of years.

However, it is rising more than ever now and at a much faster rate. Why are scientists worried about this? Is there a link between carbon dioxide levels and temperature? Remember to give **details** in your answers.

Extinction Homework Exercise 2



1. The Polar Bear is a good example of how animals have become **adapted** to the habitats in which they live. Despite living in very harsh conditions, Polar Bears are able to survive.

List five adaptations of a Polar Bear which help it to survive and find food.

2. A stoat can change its fur colour depending on whether it is winter or summer. In winter, there is a lot of snow on the ground.

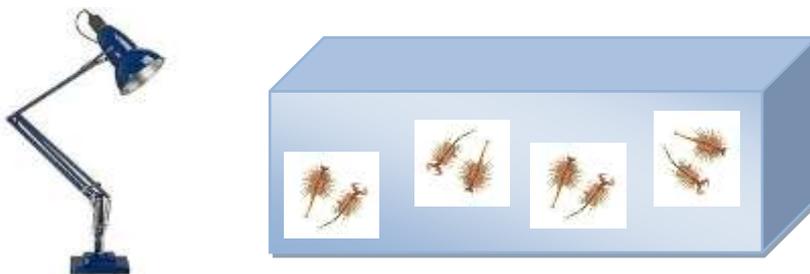
a) Explain how changing the colour of its fur helps the stoat to survive.

b) Describe one other change to the fur of a stoat, other than colour, that would also help it to survive.

c) If global warming meant that, in the future, there was never any frost or snow, what might happen to the stoat? **Explain** your answer.



3. Inherited **instincts** make an animal respond to its environment in a predictable way. Look at this tank of Brine Shrimp:



a) A bright light is shone on one side of the tank. What would you expect to see happening to the brine shrimp? **Explain** your answer.

b) How can we tell this is instinctive behaviour and not something they learned?

4. Turtles are another animal which rely on instinct to help them survive.

a) New hatchlings always move towards the brightest thing they see.

Why would they do this?

b) Why is this now causing problems for the hatchlings?

c) Can you think of a way to help the hatchlings survive?

d) Adult turtles also have instincts which are causing them more harm than good. Can you name two of these instincts and **explain** why they may no longer be useful to the turtle?

