

Week 13th July – Science

Dangers to living things - Lesson 5

In this final lesson of the unit, we are going to look at large changes that can affect the balance of a food chain and all the animals that are in it.

You can view a video to help your understanding of this lesson on the learning platform. It is in the year 3 and 4 area and is called Science – What affects a food chain?

Task 1

The seasons (winter, spring, summer and winter) can affect food chains. For each of the seasons, explain how the weather and conditions in a season might affect the food chains of different animals.

Look at my example of what can happen to a food chain in autumn.

Autumn

In autumn, lots of plants start to die back. Some trees lose their leaves and this can mean there are less producers in a number of food chains. As a result of their being less food, a lot of insects can die. This results in less food for the predators in the food chain, like birds. Sometimes the predators have to go and find other food supplies like, berries.

Think about the weather in the other seasons and how that might affect the plants and animals in a food chain.

Write a paragraph about what can happen to the plants and animals in the different seasons.

You can use these food chains to help with your description if you would like.

sunflower plant – caterpillar – blackbird – fox

lettuce – slug – frog – owl

blackberries – mouse - cat

Task 2

Some animals can only survive in a particular habitat, such as a rainforest or marsh land. When the habitat changes, these species find it very difficult to survive.

Read this information about orangutans and answer the questions below in your yellow book.

Orangutans

Orangutans spend most of their time up in the trees. They are equipped with very long, powerful arms and hook-shaped hands and feet. These apes climb and swing from tree to tree with ease. They reach from one tree to the next with their long arms, grasping the next branch with long hands or feet, and swing their bodies across the gap. Sometimes, heavier males can't find branches strong enough to hold their weight, so they climb down to get to the next suitable tree.

On the ground, orangutans walk on all fours. Orangutans find their food in the trees where they live. More than half their diet consists of fruit. They also eat nuts, bark, and other parts of plants and trees. Every once in a while they eat insects such as ants and termites, as well as bird eggs.

Orangutans find the water they need for drinking up in the trees—in hollows, on leaves, or even on their own fur after a rain. Trees are essential to every aspect of the orangutans' world. The cutting down of trees—deforestation—has meant a lot of their habitat has been lost. In some places, corridors of forest have been left to try and ensure the orangutans to still have somewhere to live and feed but they are often not large enough. Without trees to live in, this species has ended up on the endangered list.

1. Where do orangutans spend most of their time?
2. How do they travel through and between the trees?
3. What is different about how they travel when they are on the ground?
4. What do orangutans eat?
5. Where do they get their water from?
6. What is deforestation?
7. Why is deforestation a problem for the orangutans?

Bonus task

Can you find out any more information about these endangered animals?

Task 3

Apart from the seasons and deforestation, other things can happen to an environment that can affect the food chains there. Make a list of as many natural or man-made events that might affect animals and plants in an environment.

How many examples can you think of?

Use these pictures to help you think of the environmental changes that can happen.

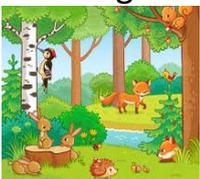


Look at the end of this lesson to see some of the ones I thought of.

Task 4

Thinking of the environmental changes that you have listed, how are they going to affect animals? What might change for the animals?

Living things depend upon their habitats to live. They need them for food, water, air and space to live in. Look at this drawing of some animals that live in a forest. Write a paragraph to explain how a forest fire could affect the animals living here. Would some of them be able to get away from the fire? Would some lose their source of food?



Bonus tasks

- Study an animal outside. If you observe an animal in your back garden or local park you can begin to see where it is getting its food from and where it lives. How is it getting what it needs to survive? How could this be affected? What changes could happen that could put it in danger? Can you write a mini report on the animal you have studied and possible things that could be a danger to it?
- Study an endangered animal. Find out lots of facts about it. Why have its numbers dropped? Is anything being done to conserve the animal? Can you write a paragraph or fact file about it?

Task 2 answers

1. Where do orangutans spend most of their time? Up in the trees
2. How do they travel through and between the trees? They climb and swing. They use their hands and feet to swing across gaps. The heavier males sometimes have to find trees that are suitable and strong enough!
3. What is different about how they travel when they are on the ground? They walk on all fours (arms and legs).
4. What do orangutans eat? Fruit, nuts, bark, parts of plants and trees, sometimes insects and bird eggs
5. Where do they get their water from? Hollows in trees, on leaves, their own fur after rain
6. What is deforestation? The cutting down of trees
7. Why is deforestation a problem for the orangutans? They have lost the places they can live (habitat) and the majority of their food comes from trees too.

Task 3 answers

Here are some ideas of things that can happen and affect a food chain and the animals in it: flood, fire, volcano, building, drought, plant clearing, storms, snow or ice, I am sure you can think of some more too!