











# Living Things and Their Habitats: Environmental Changes

<p><b>Aim:</b> To recognise that environments can change and that this can sometimes pose dangers to living things by learning about environmental dangers and endangered species.</p> <p>I can describe environmental dangers to endangered species.</p> <p>Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions by writing about and orally presenting findings from research.</p> <p>I can present my findings orally and in writing.</p>	<p><b>Success Criteria:</b> I can name some endangered species.</p> <p>I can say how changes to the environment have affected endangered species.</p> <p>I can write a report about information I have gathered through research.</p> <p>I can present my findings to the class.</p>	<p><b>Resources:</b> <a href="#">Lesson Pack</a></p> <p>Topic books on endangered species</p> <p>Internet access (the <a href="#">WWF website</a> has a comprehensive resource featuring all endangered and threatened animals, which will be suitable for confident readers.)</p>
	<p><b>Key/New Words:</b> Endangered, extinct, conservation.</p>	<p><b>Preparation:</b> <a href="#">Environmental Changes Activity Sheet</a> - 1 per child</p> <p><a href="#">Endangered Animal Report Activity Sheet</a> - 1 per child</p>

**Prior Learning:** It will be helpful if children have previously learnt how living things depend upon their habitats for survival.

## Learning Sequence

	<p><b>Changing Environments:</b> Read the <a href="#">Lesson Presentation</a> and discuss the questions on the slides to outline some of the changes, natural and man-made, that can occur in the environment, and the ways these can impact on living things.</p>	
	<p><b>Environmental Changes Activity:</b> Children fill in the <a href="#">Environmental Changes Activity Sheet</a>, giving examples of environmental changes and how they affect living things.</p>	
	<p><b>Endangered Species:</b> Introduce some species that have become endangered and extinct due to changes in their environment. Working in pairs, children choose an endangered animal to research from topic books and the Internet. Children complete the <a href="#">Endangered Animal Report Activity Sheet</a> by drawing a picture of their animal, describing the animal's habitat, writing about the environmental dangers that it faces, and suggesting how the animal can be saved from extinction.</p>	
	<p><b>Endangered Species Presentation:</b> Still working in their pairs, children prepare a short presentation about their research on an endangered animal. When children have prepared their presentations, they share them with the class.</p>	
	<p><b>How Can We Help?</b> Read the <a href="#">Lesson Presentation</a> to outline ways in which children can contribute to help with protecting endangered species.</p>	

## Taskit

**Playit:** Learn more about endangered species by playing this [Endangered Animals Card Game](#).

**Presentit:** For a computing link, present children's findings in word processed posters or PowerPoint presentations.

**Crosswordit:** Reinforce vocabulary with this [Environmental Dangers Crossword Puzzle](#).



# Science

Living Things and Their Habitats





# Environmental Changes

## Aim

- I can describe environmental dangers to endangered species.
- I can present my findings orally and in writing.

## Success Criteria

- I can name some endangered species.
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# Changing Environments



Living things depend upon their habitats to give them everything they need, including food, water, air and a space to live and grow.

Human beings are able to make big changes to their habitat to make it suitable for them to live in.

What are some of the ways that humans are able change the environment?



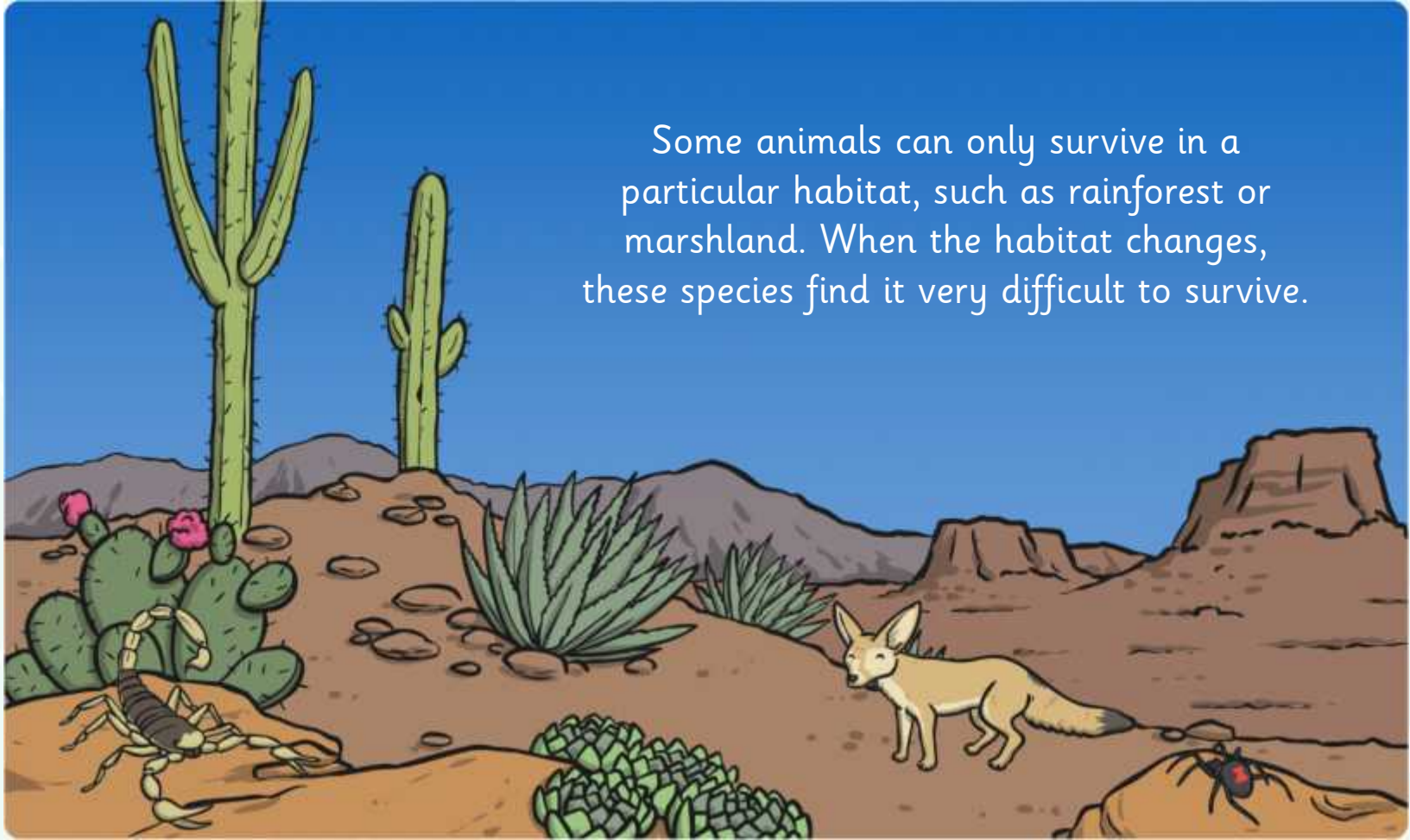
# Changing Environments

Some species are very good at adapting to changes in their habitats. These species are able to live alongside humans successfully in towns and cities.



# Changing Environments

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



# Changing Environments



Habitats can change for many different reasons. Some of these changes are natural. What kind of natural events could cause changes to habitats? How could these affect the plants and animals that live there?





# Changing Environments

## Natural Changes

Events like earthquakes, storms, floods, hurricanes, wildfires and droughts can have very serious consequences for living things.

Habitats can be destroyed and the plants and animals that live there might be killed. Those animals that survive might find that their sources of food and water have disappeared. They may no longer have a safe place to live and grow.

These fish died when their river habitat dried up in a drought.

While these events are natural, many are made worse by climate change, and so are affected by the activities of humans.



# Changing Environments



## Changes Caused by Humans

Most of the changes to the habitats of living things are caused by humans.

What kind of environmental changes can you think of that are caused by humans? How could these affect living things?



# Changing Environments

## Deforestation

Many of the things that humans do, destroy animal habitats.

Only a very small amount of the world's land is covered in rainforest, but about half of all plants and animals live here.

Humans have cut down large areas of the forest to clear space for building or farming. This has destroyed the habitats of many species and made it difficult for them to survive.



# Changing Environments

## Pollution



Waste from factories and pollution that contaminates the ground makes it difficult for plants to grow. This in turn means there is no food or shelter for the animals that once lived among the plants.

Chemicals and waste that are spilled in the sea are very dangerous to all the living things in the marine habitat.



Pollution in and near rivers and streams kills the plants and animals in the water and poisons the drinking water of many living things.

# Changing Environments

## Urbanisation

As humans build upon areas that were once natural habitats, there is not enough land and food left for the animals to share.

Wild animals can be forced to come to human areas to look for food and shelter. This can be dangerous for humans and animals.



# Changing Environments

## Invasive Species

Sometimes, when humans introduce new species to an area, this can have a very bad effect on the existing wildlife.

Grey squirrels are an example of an invasive species that is common in the UK. These are native to America, but were introduced in to the UK in the 1870s because people thought it would be nice to see them in parks and gardens.



Unfortunately, grey squirrels are bigger, stronger and breed more quickly than our native red squirrels. Grey squirrels eat the food and take up the habitat that was once held by red squirrels, and now the red squirrels are in danger of extinction.



# Environmental Changes Activity



Fill in your Environmental Changes Activity Sheet, giving examples of environmental changes and how they affect living things.

## **Change in the Environment:**

Water pollution.

## **Impact on Habitats**

Water is poisoned by chemicals from factories.

## **Effect on Living Things**

Kills fish and other animals that live in the water.

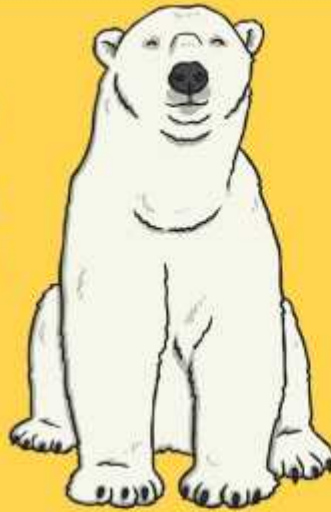
Kills plants living in and near the water.

Poisons the drinking water of many animals.

# Endangered Species

Many living things are endangered because humans have destroyed much of their habitat. When a living thing is endangered it means that there are not many of that plant or animal left and scientists are concerned that the species may become extinct.

Here are some endangered species. There are many more species of plants and animals threatened by the destruction of their habitats. If these species cannot be protected from the changes in their environment, some of them may become extinct.





# Endangered Species

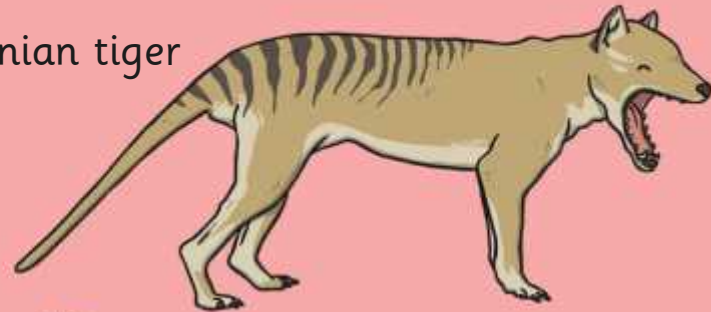
These living things are already extinct due to man-made changes to the environment.

Once a species is extinct, it can never be brought back.



dodo

Tasmanian tiger



quagga



cry violet

passenger pigeon



# Endangered Species Report



In pairs, you are going to research one endangered animal by looking in books and on the Internet.

Draw a picture of the animal.

Describe the animal's habitat.

Explain what changes to the environment have made the animal an endangered species.

Suggest what can be done to save the animal from extinction.

## Endangered Animals Report

Endangered animal:

Habitat:

Why is the animal endangered?

What can be done to help this species?

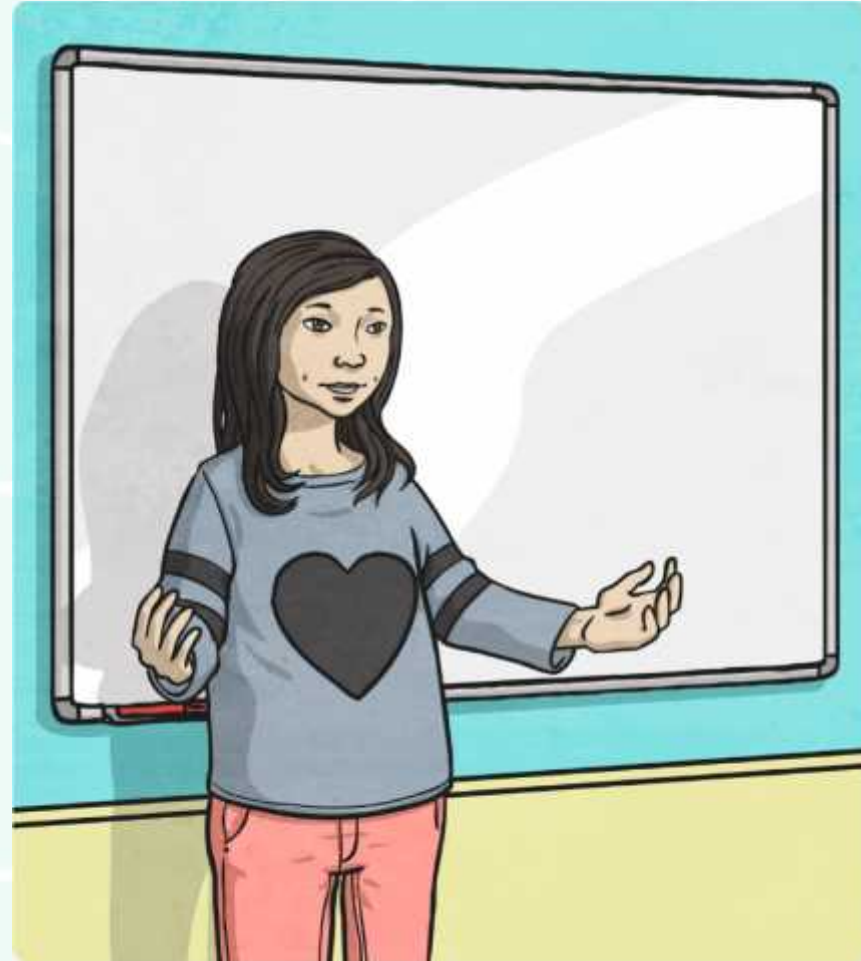
# Endangered Species Presentation



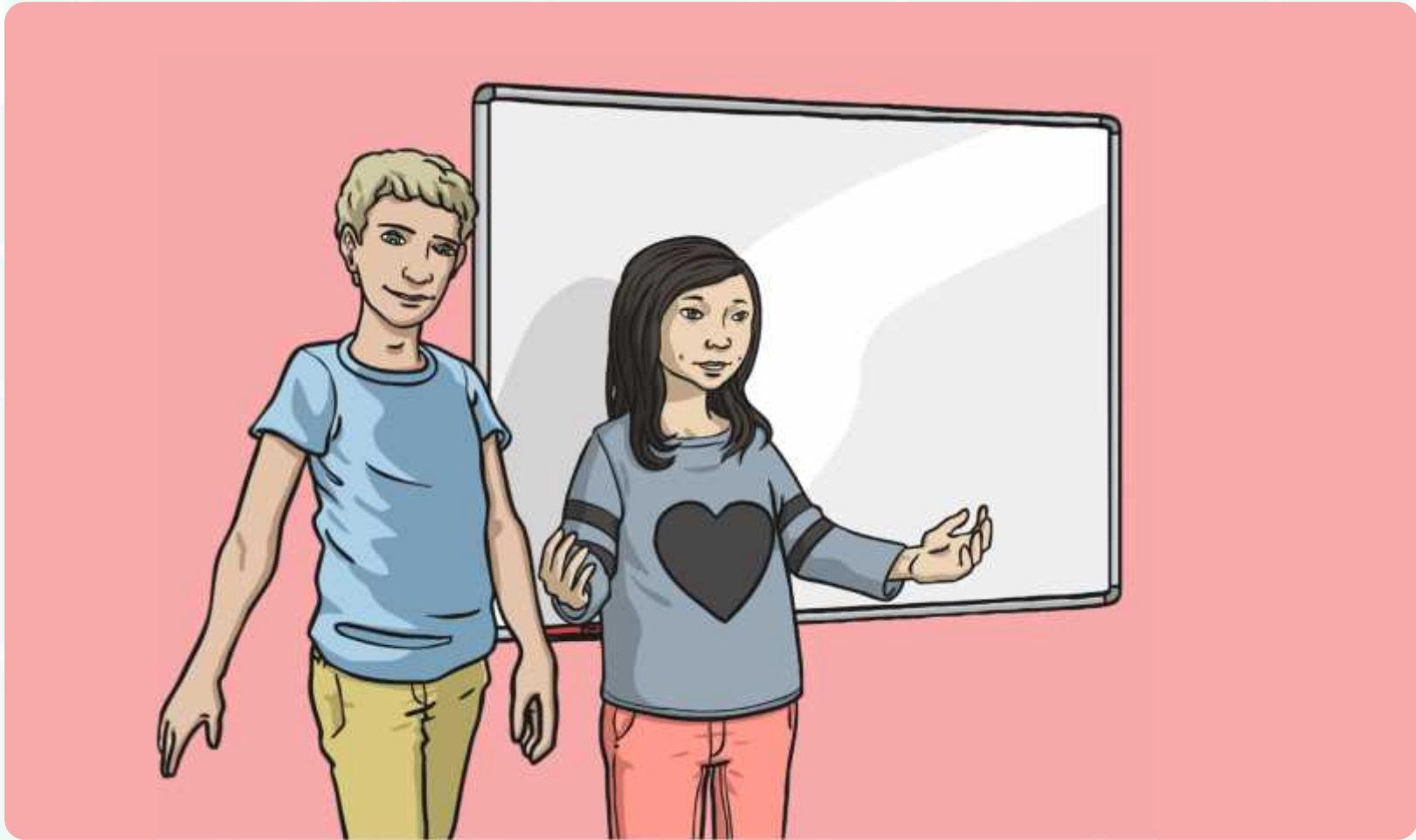
Prepare a short presentation about your endangered animal, to share the information you have found out through your research.

Focus on communicating your findings about the animal and its habitat, and the environmental changes that have made it endangered.

Make sure you co-operate with your partner to get the information across to the audience.



# Endangered Species Presentation



# How Can We Help?

There are lots of things we can do to help endangered plants and animals so they do not have to face extinction.

## **Find Out More**

The first step in protecting endangered species is to find out more about them and to tell your friends and families. The more people know about all the amazing living things that are at risk of extinction, the more can be done to help them.

## **Reduce, Reuse, Recycle**

Making new products uses lots of resources. When these resources are taken from the natural world, habitats are destroyed. Make sure that your family recycles all the waste that they can, and don't forget about reducing and reusing too!

# How Can We Help?

## **Save Energy**

Wasting electricity causes unnecessary pollution that damages the environment and harms plants and animals. Switching appliances off when they are not in use will make the world a better place for all living things, and for humans too.

## **Think Local**

Many species in the UK are in decline. Find out about the endangered species in your area and what you can do to protect them.

## **Support Wildlife Charities**

There are lots of wildlife charities who work very hard to protect endangered species. These charities work to protect habitats so that plants and animals have a safe place to live.

Can you think of any more ways you can help?

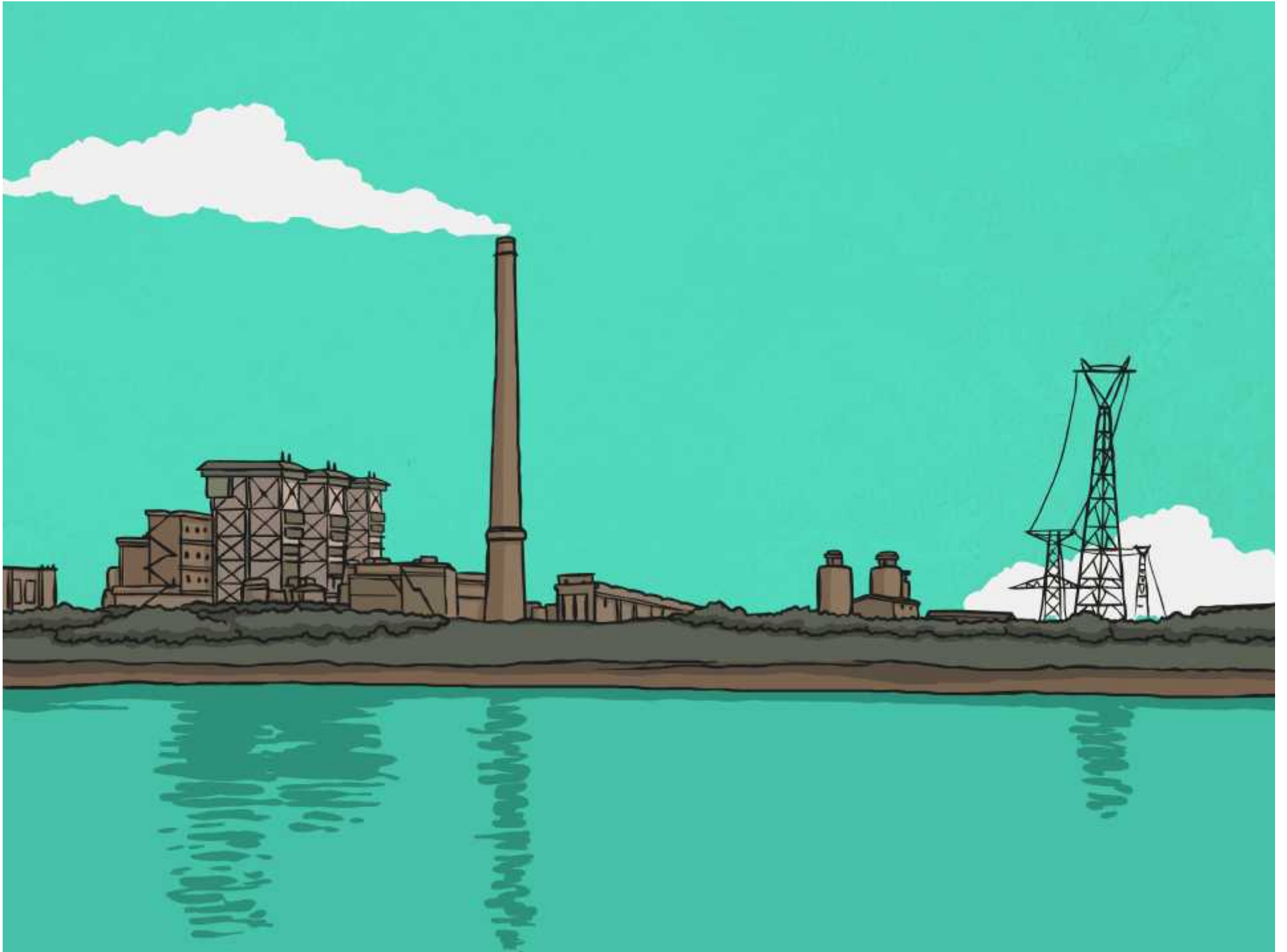
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# Endangered Animals Report

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What can be done to help this species?

# Environmental Changes

Change in the environment:

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Impact on the habitats:

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Effect on living things:

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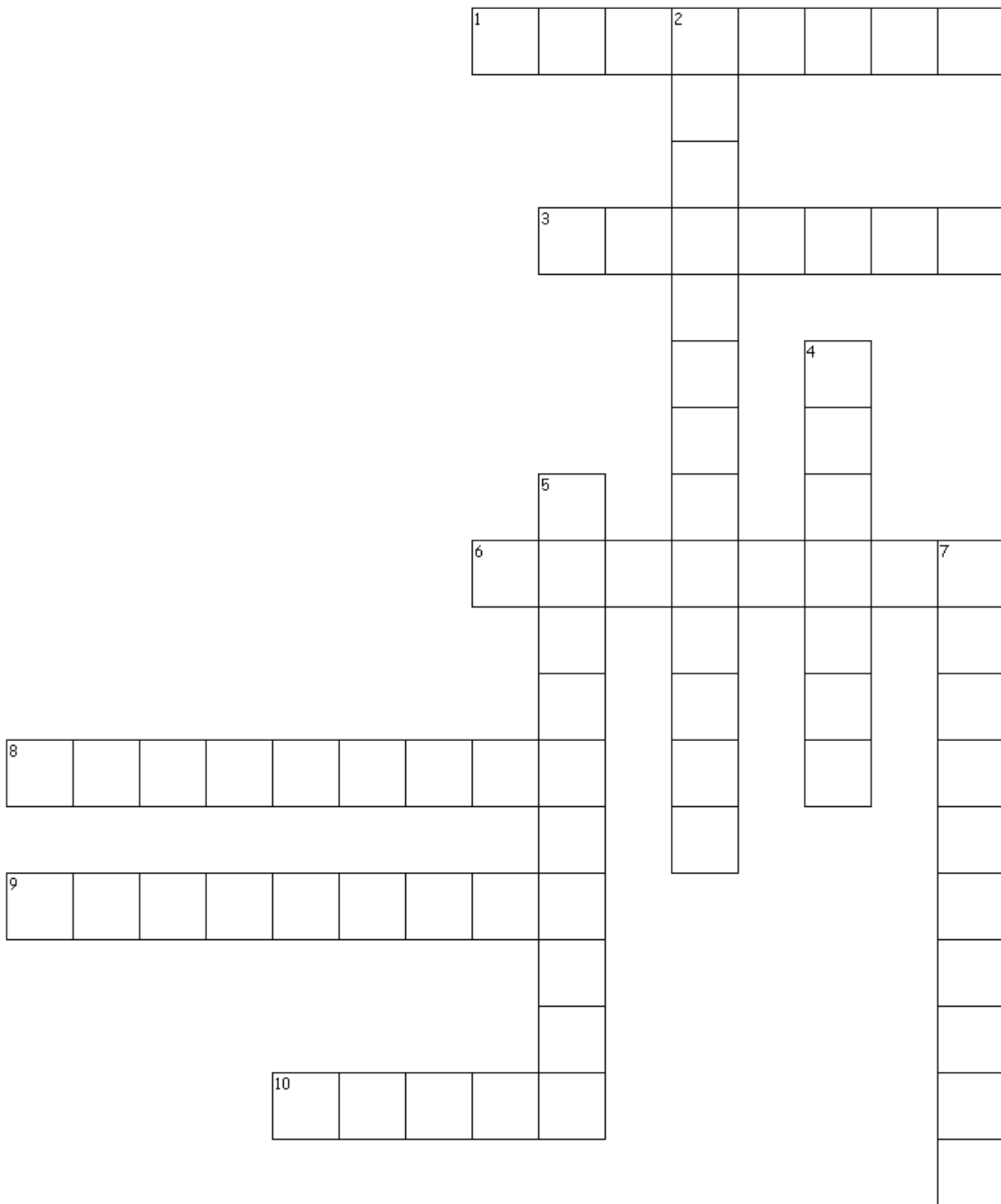
Effect on living things:

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# Environmental Dangers



## Across

1. These fires can destroy large areas.
3. Too little rain leads to a lack of water.
6. Species that do not belong and can threaten local wildlife.
8. Dangerous chemicals on the land, in the water or the air.
9. A powerful storm.
10. Too much rain causes a dangerous surge of water.

## Down

2. Humans cut down large areas of trees to clear land for building and farming.
4. A species that is no longer alive on the earth.
5. A species that is threatened with extinction.
7. Movement of the Earth's tectonic plates causes the surface of the earth to shake.

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