



EDUCATION RESOURCES:

Facts about whales, dolphins and porpoises

What is a whale?

Whales are warm-blooded mammals that live in the sea, breathe air, and nurse their young with mother's milk. They are often called marine mammals

Dolphins and porpoises are small whales. There are around 80 different kinds or species of whales and dolphins. Whales can be divided into two groups: those with teeth, called toothed whales, and those without called baleen whales.



How did whales evolve (develop)?

About 50 million years ago, the ancestors of whales were small, furry creatures that lived on land. Slowly over millions of years, these creatures changed, or evolved, into animals that spent more and more time in water. Their front legs became flippers and a thick layer of fat called blubber replaced their fur coats to keep out the cold. Eventually, they lost their back legs, as their tail became bigger and stronger for powerful swimming. Gradually their nostrils moved to the top of their heads so that they could breathe and swim at the same time.

How do whales breathe?

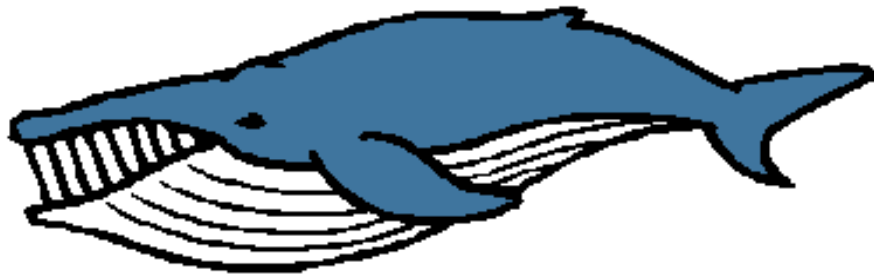
Whales must come to the surface to breathe. When they breathe out, the warm air sometimes forms a cloud called the whales 'spout' or 'blow'. Just like when you breathe out on a cold day. This is how people can spot whales from far away at sea.

What and how do whales eat?

Baleen (non-toothed) whales, such as the blue and humpback whales, are very big and have large plates that hang down from their upper jaws instead of teeth. Baleen is the name of these plates and it is made of a tough material, called keratin like your fingernails. Baleen plates sieve or strain food from the water.

The whales swim along and take a huge mouthful of water full of tiny shrimps called krill. Closing their mouths, the whales push the water out with their tongues, through the baleen plates, trapping the shrimps inside. They then swallow up to a ton of krill in one great big gulp.

The toothed whale group have teeth instead of baleen. They eat a wide range of food including fish and squid.



How big do whales grow?

Some whales are the largest living creatures ever to exist. They can grow bigger than the biggest dinosaur. An elephant could sit on a blue whale's tongue. Its heart is the size of a small car! A blue whale can be over 30 metres long and weighs over 150 tons. A baby blue whale is 7 metres long at birth, weighs around 3 tons, drinks 400 litres of its mother's milk every day, and gains weight at 4.5 kilos per hour!

The largest toothed whale is the sperm whale, which can grow up to 20 metres long. Sperm whales have the largest brain ever evolved. They eat squid that they catch way down in the ocean depths. Sperm whales can dive up to a mile below the ocean surface and can hold their breath for up to an hour! You may have read the famous book about a white sperm whale called 'Moby Dick'. Most toothed whales though are very much smaller than sperm whales; these are the dolphins and porpoises.

How do whales communicate?

Whales have large complex brains and scientists think they are very intelligent. Whales produce many sounds and can talk over great distances to one another. Male humpback whales 'sing' when they are courting females. People have recorded humpback whale songs. They were even sent into space aboard the 'Voyager' spacecraft. Whale songs have been best-selling hit records!

What threats are whales facing?

Whales face an increasing number of threats including:

Whaling

For hundreds of years people hunted whales for their oil to fuel lamps and candles, to lubricate machinery and to make margarine, lipsticks and other products. They also used baleen whales to make tennis racquets and corsets! Today, modern technology has replaced the need for whale products, so there is no need to kill whales for their oil. Sadly, some countries still kill whales to sell whale meat for profit – a very expensive luxury for some people.

In the old days of whaling, the sailors hunted whales from sail ships and rowing boats. They chased the whales and threw hand-thrown spears called harpoons at them. However, during the late 1800s, steam powered ships replaced the old sailing boats. They could sail all over the world, even to the north and south poles, and kill whales in vast numbers. Now the whalers could chase and catch the fastest swimming whales and exploding harpoons were used to kill many large whales. Not long ago it seemed that the whales would disappear altogether and become extinct!

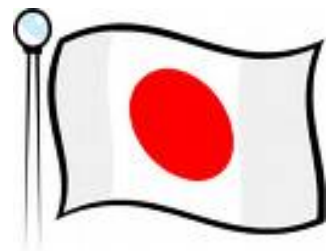
In 1946, the whalers decided to try to stop the whales going extinct and they formed the International Whaling Commission (IWC). The IWC decided the number of whales that could be killed every year. The IWC was made up of whaling countries and they kept killing more and more whales. Soon, so few whales of some species remained that it was no longer worth trying to find and kill them.

Today, many countries have given up whaling, including the United Kingdom. People became so concerned about how the whales were suffering and dying out that they wrote letters and signed petitions calling for all whaling to stop. Because of this, in 1982 the majority of IWC member countries voted to stop killing whales for profit. A whaling ban, or moratorium, was then introduced in 1986.

Even today, no one really knows how many whales are left. Unfortunately, some countries like Japan, Iceland and Norway have refused to stop whaling. They still kill thousands of whales each year between them.

Japan

Japan says it is killing whales for 'scientific research' to discover how many whales are left and if their numbers are increasing or not. However, many countries disagree and say Japan can find out this information without killing more whales. Unfortunately, the whale meat from 'research' is sold to expensive restaurants in Japan and makes a lot of money.



Norway

Norway hunts minke whales for profit. They want to sell the meat to Japan so they can make much more money. Fishermen say that whales and seals are eating too many fish, but this is not true. It is fishermen and big fishing boats that are catching too many fish causing fish populations to collapse, – not whales!



Climate Change and whales

Climate is the long-term average of a region's weather events. Climate change is a variation in these long-term weather patterns. Climate change is sometimes called global warming

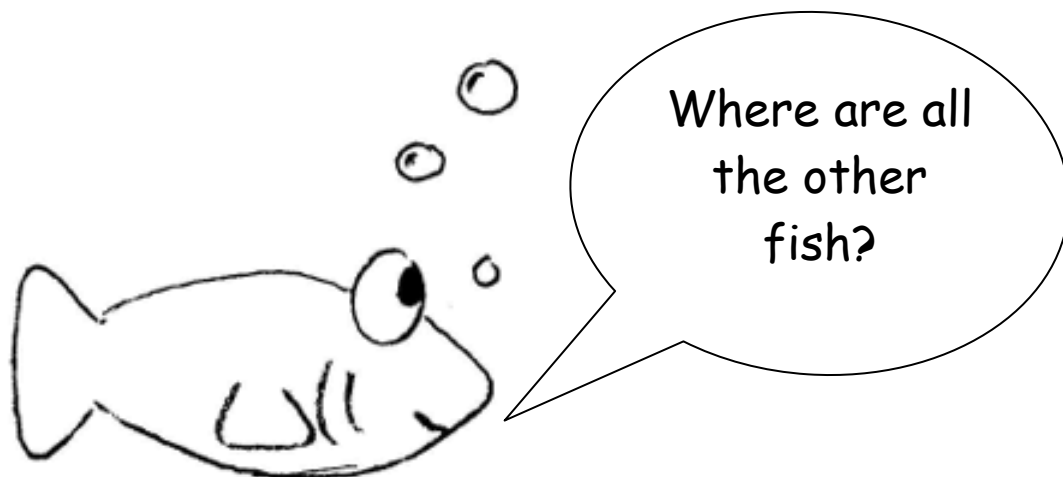
Humans are releasing too many gases into the atmosphere (air), including a gas called carbon dioxide (CO₂), which traps heat from the sun causing the temperature to rise.

Coal-burning power stations, which produce electricity, along with cars and airplanes, are some of the ways that the carbon dioxide gas reaches the atmosphere.



Carbon dioxide in the atmosphere contributes to a process called 'global warming', which occurs when, carbon dioxide and other gases trap energy in the atmosphere (air) making the Earth warmer. This increase in temperature is making the ice caps melt! In addition, climate change is making the weather patterns change and we are experiencing many more storms and strong winds.

Climate change is causing problems for whales. For example, it is making the sea warmer and less salty, which affects the currents. It is also reducing the food sources available for the whales.



What can you do to help protect whales from climate change?

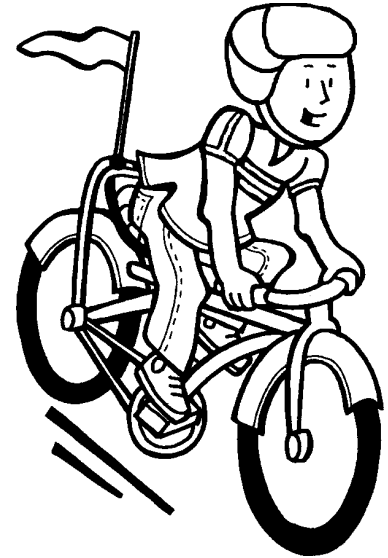
Listed below are three simple things you and your family can do to help reduce climate change:

1) Turn off electrical appliances when you are not using them.

For example if you are not using the computer or TV – then switch it off!

2) Eat local food

Apples grow in England, however we often have them flown half way across the world from New Zealand and other countries. This releases lots of carbon into the atmosphere from planes and ships and can cause problems for whales. Instead, choose fruit and vegetables that are grown in your country wherever possible. .



3) Walk and cycle instead of using the car

Pollution and whales

Pollution is rubbish! Plastic shopping bags, nappies, old fishing nets are just some of the things that end up in the sea. Plastic bags cause problems for whales as they eat them; they think it is a tasty jellyfish. However, it gives them a tummy ache and can even kill them! Whales can get tangled in old fishing nets too causing them to drown.

Pollution can also come in the form of dirty water! For example, chemicals used to grow food can wash down the rivers into the sea. Paint from boats dissolves in the water. Such toxic chemicals can make whales ill and may be causing a drop in whale numbers.

What can you do to protect whales from pollution?

1) Stop using plastic bags. Instead, take a reusable bag when you go shopping.

2) If you live near a beach, help organise a litter pick – but always have parental supervision and use correct litter picking tools i.e. protective gloves etc

3) Stop releasing balloons as these very often end up in the sea and could be eaten by whales or dolphins

How can I help Campaign Whale to protect whales?

1) Join the 'Whale Savers' scheme

Become a 'Whale Saver' from just £20 a year and receive a special 'Whale Savers' certificate, metal badge and regular newsletters. Please visit our website www.campaign-whale.org for further details.

2) Create a 'Whale Savers' club with friends

If you also have friends who like whales and dolphins, join forces and create your own 'Whale Savers' club. Together, you could organise projects to help raise awareness about these wonderful marine mammals and raise money to protect them.

3) Write to the Japanese and Norwegian Government

Some people want to let Japan and Norway hunt whales off their coasts because they refuse to stop whaling anyway. Campaign Whale believes whaling is cruel and should be banned forever. Please write a letter, or send a picture or poem, to the Norwegian and Japanese Ambassadors in London or your country saying that killing whales is cruel and asking them to please stop whaling:

Here are the addresses to write to in the UK. For other countries, please click here:

His Excellency Yoshiji Nogami,
Ambassador
Embassy of Japan
101-104 Piccadilly
London
W1V 9FN

His Excellency Bjarne Lindstrom,
Ambassador
Royal Norwegian Embassy
25 Belgrave Square
London
SW1X 8QD

4) If you live in the UK, please also write to Prime Minister Gordon Brown and ask him to help stop whaling:

The Rt Hon. Gordon Brown MP
Prime Minister
Downing Street
London
SW1A 2AA

Thank you. Together we can protect whales, dolphins, and porpoises forever.