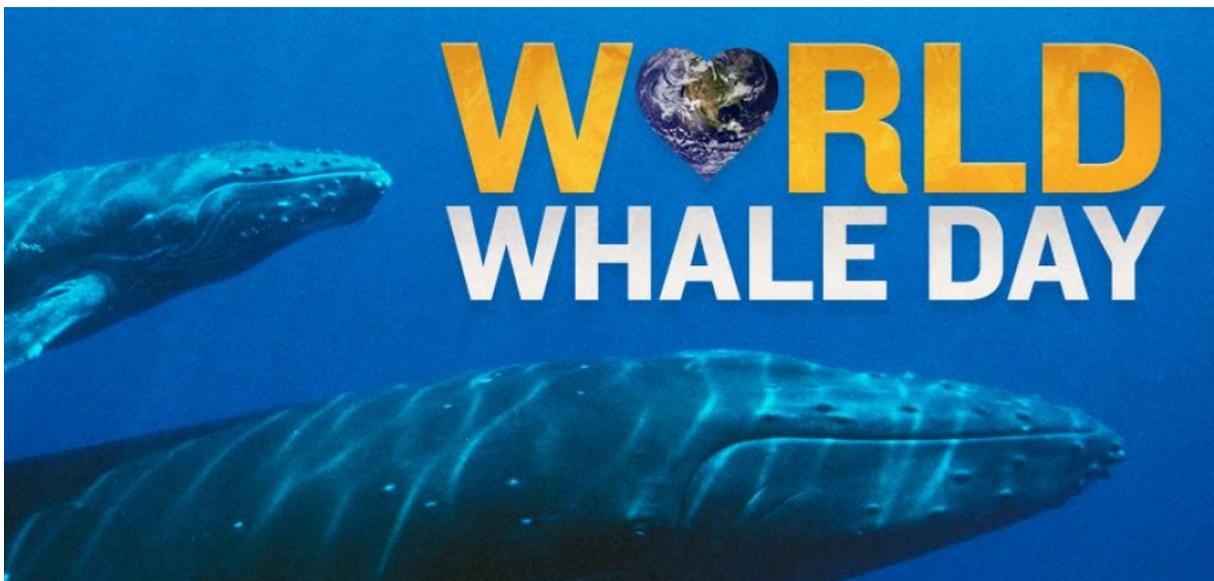


CHILDREN IN THE  
WILDERNESS



Celebrates



*Individually, we are one drop. Together, we are  
an ocean - Ryunosuke Satoro*



## INTRODUCTION

While whales might not be anywhere close to where you and your Eco-Club are situated, it is still important to teach the children about these wonderful creatures. Not only to expand their understanding and knowledge of the world outside of their village and community, but also to understand the trouble that whales are in, and why. This lesson also touches on:

- **Map work** – take a look at a map and see where your closest ocean is!
- **Measurement** – measure out how long whales are; have the children measure their height in comparison.

Whales roam throughout all of the world's oceans, communicating with complex and mysterious sounds. Their sheer size amazes us: the blue whale can reach lengths of more than 30metres and weigh up to 181437kgs—as much as 33 elephants!

World Whale Day reminds us of the challenges faced in our oceans across the globe. Observed annually on the third Sunday in February, World Whale Day celebrates these noble sea mammals. For centuries they've been hunted for their meat and oil, but today they face pollution and loss of habitat. World Whale Day raises awareness of the growing need to protect these diverse and majestic mammals.

## LESSON PLAN

Read through the lesson plan in order to organise your Eco-Club session. Make use of the vocabulary list at the end of this lesson plan. Any word that is **bolded in red** in the lesson, will be in the vocabulary list.

Thereafter, follow the numbered steps in order to conduct your lesson. Make sure that you work through this step by step to ensure all parts of this important lesson are covered.

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### STAGE 1 – ENERGISER



#### DISCUSSION

**Discussion – All about Whales**

**Time – 10mins**

**Location – Under the trees**

**Materials – A world map or atlas (if you have one)**

1. Sit under the trees outside with the children and talk to them about Whales. Be sure to talk about this special lesson on World Whale Day. This is just a quick discussion to introduce the children to Whales – you will go more in depth later in the lesson.

1. While whales might not be anywhere close to where you and your Eco-Club are situated, it is still important to learn about these wonderful creatures. Not only to expand your understanding and knowledge of the world outside of your village and community, but also to understand the trouble that whales are in, and why.





2. Whales roam throughout all of the world's oceans, communicating with complex and mysterious sounds. Their sheer size amazes us: the blue whale can reach lengths of more than 30metres and weigh up to 181437kgs—as much as 33 elephants!
3. World Whale Day reminds us of the challenges faced in our oceans across the globe. Observed annually on the third Sunday in February, World Whale Day celebrates these noble sea mammals. For centuries they've been hunted for their meat and oil, but today they face pollution and loss of habitat. World Whale Day raises awareness of the growing need to protect these diverse and majestic mammals.

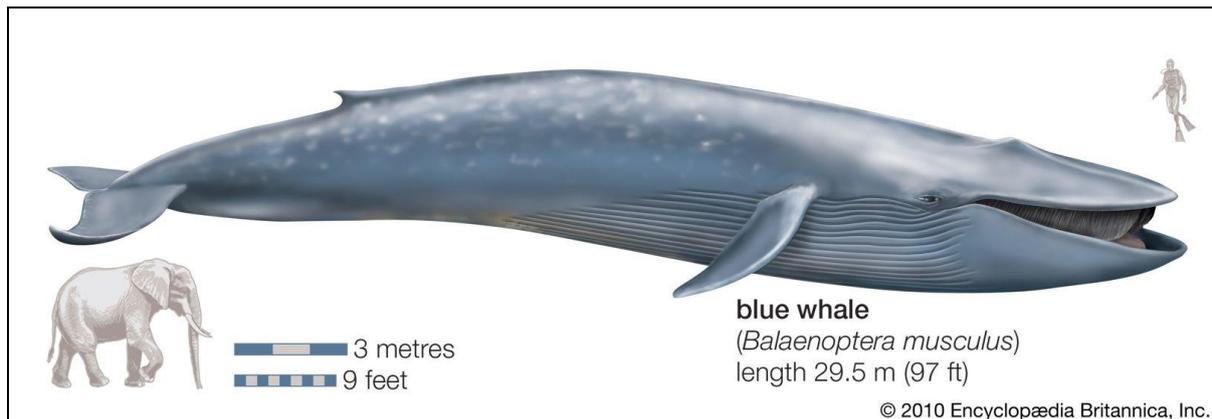
**4. FACTS ABOUT WHALES:**

- a. Despite living in the water, whales breathe air.
  - b. Like humans, they are warm-blooded mammals who nurse their young. A thick layer of fat called blubber insulates them from cold ocean waters.
  - c. The diet of whales depends on their species; it can range from microscopic plankton to large marine mammals. Whales can be grouped into two categories – baleen and toothed. Bristles replace the teeth on baleen whales. Made of keratin, the bristles act as a filter collecting krill and other small invertebrates from the sea.
  - d. Toothed whales often hunt in groups for small mammals, and will migrate together and share young-rearing duties.
5. Many whales, especially baleen whales, tend to migrate long distances from their cold-water feeding grounds to warm-water breeding grounds each year. They travel alone or in groups, or pods, on their annual migration
  6. Most whales are quite active in the water. They jump high, or breach, out of the water and land back in the water. They also thrust their tails out of the water and slap the water's surface, which is believed to be a warning of danger nearby.
  7. Whales also communicate with each other using lyrical sounds. These sounds are extremely loud depending on the species and can be heard for many miles.
  8. Because they need to breathe air by coming to the water's surface, whales are conscious breathers, meaning they decide when to breathe. All mammals sleep, including whales, but they cannot afford to fall into an unconscious state for too long, since they need to be conscious to break the surface in order to breathe
  9. Whales are big!

**ACTIVITY: Measure out the length of the biggest whale.**

- a. **The Blue Whale measures between 24 and 30 metres in length and with a maximum recorded weight of 156943kgs, it is the largest animal known to have ever existed!**
- b. **Put a mark on the group to show the tip of the whale's tail, and then pace out length of the whale (30metres). Put another mark on the group to show the tip of the whale's nose.**
- c. **Now, have each child lie down on the ground, with their feet at the tip of the whale's tail. How did they measure up?**
  - i. **How many children did it take to fill the length of the whale?**
- d. **Show the children the picture below, where the size of a blue whale is compared to an elephant and a human:**





10. Whales are found all over our oceans:

**ACTIVITY: Look at a map**

- Show the children a map of the world, either on a map or in an atlas, and look at your location.
- How far away from the ocean are you?

2. Now play the energiser below with the children.



**ACTIVITY**

**Activity – Talk like a whale**

**Time – 15mins**

**Location – Outside in an open space**

1. Talk to the children about how whales communicate:

Whales are very social creatures that travel in groups called “pods.” They use a variety of noises to communicate and socialize with each other. The three main types of sounds made by whales are **clicks, whistles, and pulsed calls.**

- Clicks** are believed to be for **navigation** and figuring out their physical surroundings. When the sound waves bounce off of an object (**echolocation**), they return to the whale, allowing the whale to identify the shape of the object. Clicks can even help to differentiate between friendly creatures and predators. Clicks have also been observed during social interactions, suggesting they may also use clicks to ‘talk’ to each other.
- Whistles** and **pulsed calls** are used during social activities. **Pulsed calls** are more frequent and sound like squeaks, screams, and squawks to the human ear. This is most likely so that whales can differentiate between whales within their pods and strangers.

Whales also use their tails and fins to make loud slapping noises on the surface of the water to communicate nonverbally. The sound can be heard for hundreds of meters below the surface and may be a warning sign of aggression or a tool to scare schools of fish together, making them an easier meal.





2. Mark off an open playing area so that the children know where they are allowed to walk.
3. Choose one student to be a whale. Have all other students form a circle joining hands. These students will be the whale's habitat – the ocean.
4. Blindfold the whale, and then choose another student to be a baby whale.
5. The whale will make whale noises (clicking, whistling, squeaking), and the baby whale will then answer with responding clicks, whistles and squeals.
6. The mommy whale will try to find their baby whale, simulating echolocation by repeating their clicks and pulses.
7. The baby whale has to answer in turn. If the mommy whale runs into someone in the circle, the student will say "habitat." This is to keep the blindfolded mommy whale safe.
8. Once the whale tags / catches the baby whale, the baby whale now becomes the mommy whale, and the mommy whale becomes part of the habitat.
9. If either the mommy whale, or baby whale leave their habitat (go out of the circle), they die and become part of the habitat. Replace them with another whale family.
10. Depending on the size of your group, you can add more than one baby whale.

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## STAGE 2 – THEORETICAL LESSON



### OBJECTIVES

Children are introduced to whale, why they're important in the ecosystem, why they are in danger and what they can do to protect them.



### DISCUSSION

**Discussion – All about whales**

**Time – 15mins**

**Materials – Paper and pens / markers**

**Location – Under the trees. Children should bring a piece of paper along so that they can take notes about what they have learnt.**

1. Use the notes below to teach and talk to the children about whales.

#### **Why are whale important in an ecosystem?**

Whales are at the top of the food chain and have an important role in the overall health of the marine environment. Whales help regulate the flow of food by helping to maintain a stable food chain and ensuring that certain animal species do not overpopulate the ocean.

A blue whale for example can consume as much as 40 million krill per day, so you can imagine the impact this would have on stabilizing the aquatic ecosystem if the blue whale species were to become extinct.

#### **Why are whales in danger?**

Unfortunately their large size and **mysteriousness** does not protect them; six out of the 13 great whale species are classified as **endangered**, even after decades of protection.

#### **INDUSTRY**





**Collisions** with ships, **entanglement** in fishing gear, and pollution injure and kill whales. Shipping activity and oil and gas development cause noise that can disrupt or even damage whales' hearing. Such disturbance can exclude whales from critical feeding and breeding grounds, and disrupt their migratory paths.

### COMMERCIAL WHALING

Despite a temporary **ban** on **commercial** whaling and a ban on international trade of whale products, countries such as Iceland continue to hunt whales for their markets. Over 1000 whales a year are killed for such commercial purposes. Whales were hunted and killed for their meat, and their blubber (or fat) which can be used as oil.

### CLIMATE CHANGE

Warming oceans and loss of sea ice in the Arctic and Antarctic can affect the **habitats** and food of whales. Large patches of tiny plants and animals that they feed on will likely move or change as climate change alters seawater temperature, winds and ocean currents. These changes can mean whales such as humpbacks and blues may have to migrate much further to reach feeding grounds, leaving them with less time to forage for food. The shift in food availability due to climate fluctuations has already hurt the reproductive rates of the endangered North Atlantic right whale.

### What can you do to protect them?

SHARE whale information with your friends, family and community

CREATE whale art — paint, draw, sculpt, collect natural materials to make a whale. Use this art to educate people about whales

EDUCATE by giving a presentation about whales at school or in your community

STOP POLLUTING, LITTERING, CUTTING DOWN TREES WITHOUT REPLACING THEM, AND HARMING THE ENVIRONMENT - all of these actions are contributing in some way or another to climate change, which in turn affects the oceans (due to changing temperatures of water, etc.). Even though you are far away from oceans, your actions can still impact on them.

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## STAGE 3 – DIRECT EXPERIENCE



### OBJECTIVES

Since the children are unfamiliar with whales, this arts and crafts activity will expose children to what whales look like/



### ACTIVITY

**Activity – Create a whale**

**Time – 20mins**

**Materials – Pens / pencils; paper; glue; natural materials found around the school grounds; mud; clay; string / rope; etc.**

**Location – Under the trees**

1. Show the children the images of the three different types of whales





2. In groups of three, the children should collect materials from around the school to create their own whale.
  - a. They can use recyclable materials
  - b. They can use natural materials. The only rule is that these natural materials may not disturb the environment – in other words, they should only collect items that have fallen / been moved naturally (ie. Not picking leaves or grass, etc.)



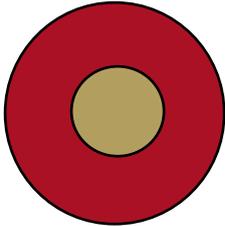


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#### STAGE 4 – DEBRIEF



Divide the children into two groups - one group makes an inner circle and the other group makes an outer circle. The children in the inner circle and the outer circle face each other to form pairs. The children take turns to report their information, or share an idea with their partner. At the end of a set period of time (say a minute or so), the children are asked to move (for example, the children in the outer circle move two places to the left), thus creating new pairs. The children now share their information with a new partner.



With each new partner, the children should share three things:

- ✓ One thing they learnt about whales that they didn't know before
- ✓ Why whales are in danger
- ✓ One thing which they could do to help save whales

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#### VOCABULARY

- **Pulsed** – a single vibration or short burst of sound
- **Navigation** - plan and direct the map / direction of a ship, aircraft, or other form of transport, especially by using instruments or maps.
- **Echolocation** - method of locating objects by determining the time for an echo to return and the direction from which it returns
- **Mysteriousness** – having a feeling of secrecy
- **Endangered** - seriously at risk of extinction.
- **Commercial** - intended to make a profit
- **Ban** – officially and legally stopping something
- **Habitats** - the natural home or environment of an animal

#### REFERENCES

- <https://nationaldaycalendar.com/world-whale-day-third-sunday-in-february/>
- <https://www.worldwildlife.org/species/whale>
- <https://defenders.org/whales/basic-facts>





**blue whale**  
(*Balaenoptera musculus*)  
length 29.5 m (97 ft)

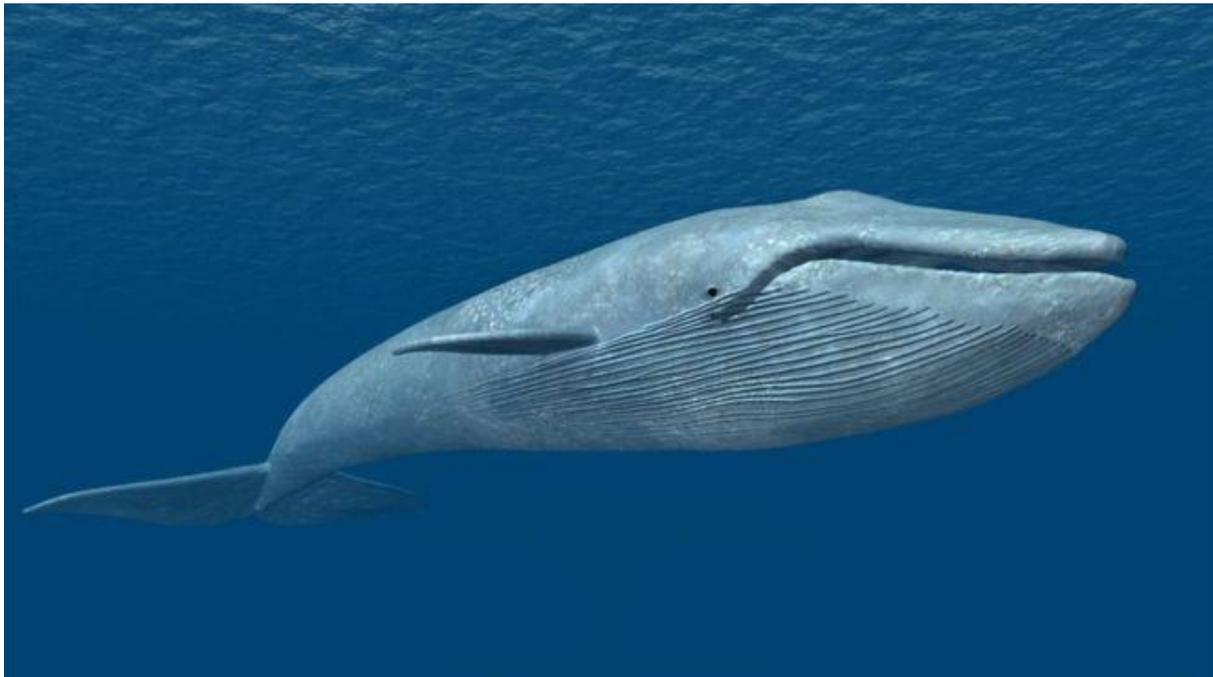


3 metres  
9 feet

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BLUE WHALE



KILLER WHALE





SPERM WHALE

