



Environmental Studies: Mammals of the Ocean 1

Student: _____

Aquatic Mammals

*Dolphins are aquatic mammals. Aquatic means they live in the water.
The term "Mammals" mean that they are warm-blooded and give birth to live young.
All mammals have hair at some point in their life, even if it is only eye lashes.*

Name any three animals that live in the water:

Name any three animals that are land mammals:

Name any two animals that are aquatic mammals:

Dolphins are sleek and powerful swimmers. They are found in all seas and oceans of the world. They are most closely related to porpoises and whales. The porpoise looks almost the same as the dolphin. The main difference is that dolphins have longer snouts, blunter teeth and thinner bodies than porpoises.

Circle True or False for each sentence

Dolphins are very good swimmers.	True	False
Dolphins are only found in cold water oceans.	True	False
Dolphins have longer snouts than porpoises.	True	False
Porpoises have thinner bodies than dolphins.	True	False
Dolphins have blunter teeth than porpoises.	True	False

Copy this very stylised picture of a dolphin in the space below.



Recall of Facts What makes a mammal, a mammal?????

All living things have characteristics or features that allow scientists to group them together. Scientists want to group things so that can they try and understand the world around us.

Covering the Body.

All animals that we can see with our eyes have some form of cover over their body. This cover helps to protect them from the environment around. Some animals have scales, some have feathers, some have shells and some have hair and fur. Mammals have hair. Hair and fur are basically the same thing. When the animals hairs are fine and closely spaced, the coat of hair is called fur.

Giving Birth.

Nearly all mammals give birth to young by what scientists call “Live Birth”. Of course no animal can survive a dead birth, but what scientists mean by live birth is that the young grow inside their mother and when they leave her body they are ready to face the world. Some animals like humans still need their parents for many years after they are born.

Feeding the Young.

All mammals feed their young milk from glands on the body of the mother. Each animal has its own special formula for the milk. Some is very high in fat so that the young animals can deal with extreme cold. Humans use the milk of animals like sheep, cows and goats to drink and make food like cheese and yoghurt

Body Temperature

All mammals keep their inside body temperature almost constant. For healthy humans this temperature is about 97°F or 37°C. One way of telling if someone is not well is to measure their temperature. If out inside body temperature gets too high or too low we can die. Animals that live in very cold climates have thick skin and fur as well as a lot of fat on their bodies to help keep their temperature constant.

Write a dot point summary to cover information under the heading:

“What makes a mammal, a mammal????”

Dolphins are very friendly animals, at least to humans. There are many stories of dolphins helping people and staying close to people. Dolphins are however very aggressive carnivores, meat eaters. They must eat up to a third of their body weight in fish and squid each day. That is a lot of fish. They hunt in packs that can have as many as a thousand dolphins.

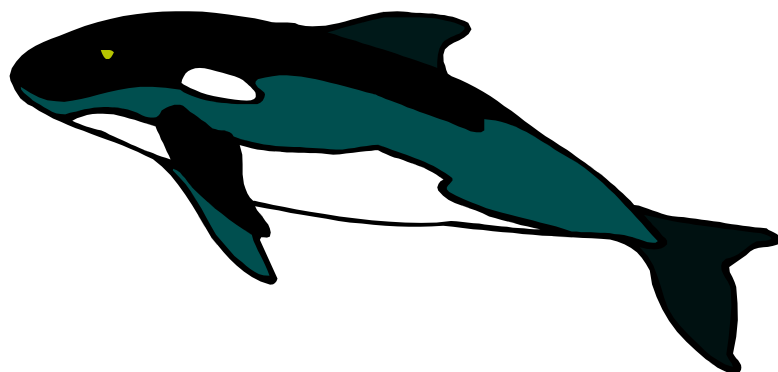
Dolphins are mammals and must breathe air. They do this through a hole in the top of their head, just like whales. Dolphins can hold their breathe and die to a depth of about 300 metres.

Dolphins are playful animals that often jump out of the water. There is n reason to do except that it must be fun.

Dolphins live in all of he oceans of the world as well as in fresh water rivers of South America and Asia.



Dolphins range in size from just about 1 metre to the Killer Whale or Orca that can be up to 9 metres long.



Research Activity

Find out the names of 3 different species of dolphins.

Dolphin species 1 _____

Dolphin species 2 _____

Dolphin species 3 _____

Draw a picture to illustrate ONE of these species of dolphin (or download a picture from the internet and attach it here). Be sure to label which species of dolphin you are illustrating.



This beautiful creature is a seal.

Seals are mammals who live in water. Almost all seals live in the ocean (but a few species live in lakes and rivers). They eat fish and other sea animals such as shellfish. They do not have any ears. They have a bullet-shaped body. They swim by moving their back limbs side-to-side. Their front flippers are used for steering. They can move on the ground, but they do not look very graceful as they hop along the shore. But once they are in the water, seals can travel extremely fast.

Harbor seals are white or gray at birth, and then they turn to gray with black spots as adults. Male harbor seals reach 6 foot in length, females are a bit smaller. They are found along coastlines and in a few freshwater lakes in Canada and Alaska, the harbor seal eats fish, squid, and crustaceans.

Fur seals live in groups and feed on fish and other animals. They used to be hunted for their beautiful fur, but now they are protected by law. Fur seals can be found in many places, including the oceans around the North and South poles.

What do seals
eat? _____

How long is a male harbor seal? _____

Why are fur seals protected by law?

The Bottle-Nosed Dolphin

Read this passage aloud.

The bottle-nosed dolphin belongs to a group of marine mammals known as the toothed whales. Bottle-nosed dolphins have a long snout, high dorsal fin, and broad tail flukes. Bottle-nosed dolphins are approximately 1.2 m long at birth and grow to a maximum size of 3 to 4 metres.

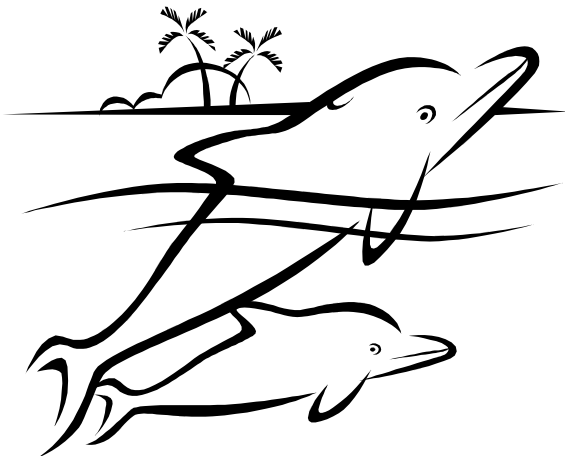
Using the information in this description

Which of the following illustrations best shows the features of the bottle-nosed dolphin.



Explain how you made your choice:

Copy this picture of a dolphin as accurately as possible.



Killer Whales are actually dolphins. They are the biggest members of the dolphin family. They are found in most oceans. They eat fish, squid and even other aquatic mammals such as seals, smaller dolphins and even whales. They hunt in packs. They have been called the “Wolves of the Sea”. Each animal has its own special pattern of black and white markings.

Which animal is the largest member of the dolphin family? _____

List 3 animals that killer whales will eat:

1. _____

2. _____

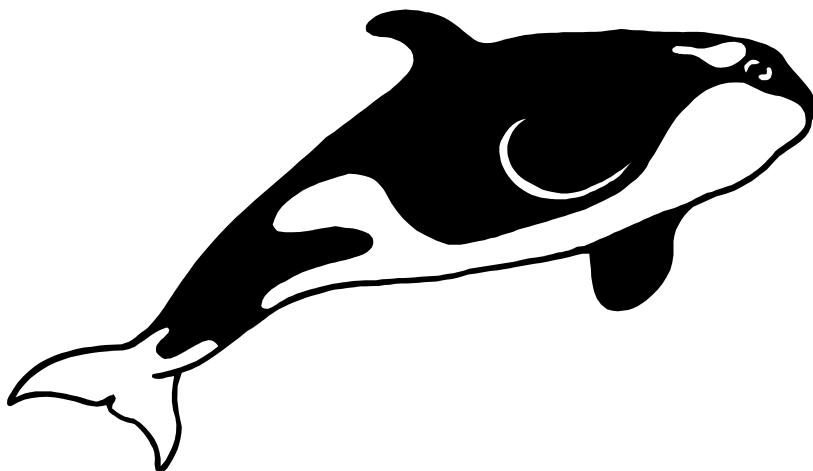
3. _____

Why are killer whales called the “Wolves of the Sea”?

How can we tell individual killer whales apart?

Research Question:

What is the scientific name for killer whales? _____



Dolphins, like whales, breathe through a blowhole at the top of the head. About every two minutes, they break the surface of the water to breathe out and in. After that, they dive back down below the water. Their tail moves in an up-and-down motion, with the double flukes of the tail driving the animal forward. The flippers are used as stabilizers. Dolphins are very streamlined and can travel at speeds of up to 30 km/h or even faster for short distances. Their lungs are strong enough to let them dive to depths of more than 300 m. They give birth to live babies after a pregnancy of 11 to 12 months. The babies swim right beside their mothers and stay close to the pack.

Answer these questions from “Dolphin Behaviour”

About how long is pregnancy for dolphins? _____

How often must dolphins breathe? _____

How do dolphins move forward? _____

What do dolphins use their flippers for? _____

How deep can dolphins dive? _____

Why do dolphins have a “blowhole”? _____

How fast can dolphins travel? _____

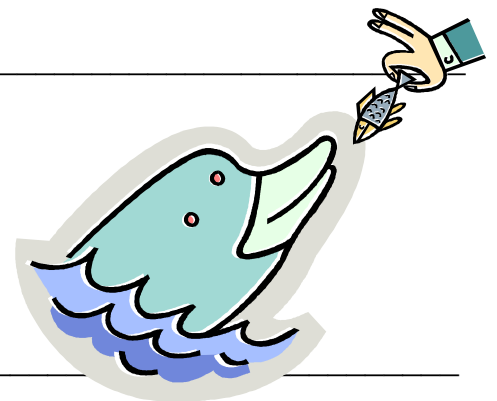
Dogs and dolphins share a lot of features in common.

List three ways in which dogs and dolphins are alike.

1 _____

2 _____

3 _____



Remove and keep this page for your records

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School: _____ Student: _____ Date: _____

Work Sample – This page should be completed by the student, as part of this task, but must be retained at school as Record of Progress

Research Task

Use the internet to find out the following information:

Prepare your answers in Report Form using the computer.

Print your Report and attach it to this assignment.

Be sure to include: Your Name, the Date, Report Title

Use the “Cut and Paste” feature of your computer to include some illustrations.

Be sure to include “References” which describe where you got your information from.

Report: A Marine Mammal

- Select ONE species of marine mammal
 - What is its common name?
- Does it have a scientific name? If so, what is it?
 - What does it look like?
- What special behaviours does it have?
 - Where does it live?
 - What does it eat?
 - What eats it?
- Is it endangered? If so, why?

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Scaffolded Assignments –
Adjusted for high school students working towards Learning Outcomes (Life Skills)

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Life Skills Outcomes – This page should be completed by the teacher, and must be retained at school as Record of Progress

Syllabus Outcomes		Achieved		Signature
		Independently	With Support	
<i>English (Life Skills)</i>				
LS.8	Responds to increasingly complex written texts			
LS.9	Writes short texts for everyday purposes			
LS.10	Composes increasingly complex written texts (Descriptive Text, Research Report)			
<i>Science (Life Skills)</i>				
LS.14	Recognises that living things depend upon each other and on their environments			
LS.9	Recognises characteristics of and changes in living things (Ocean Mammals)			
<i>Visual Arts (Life Skills)</i>				
LS.8	Explores ways to develop ideas in artworks			
<i>Information and Software Technology (Life Skills)</i>				
LS5.3	Uses a variety of techniques to present information and software technology solutions (Internet)			
<i>Marine and Aquaculture Technology (Life Skills)</i>				
LS.1	Recognises features of marine and aquatic environments and life			
LS.2	Explores some of the factors that affect marine and aquaculture environments			