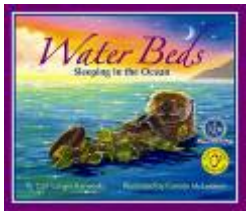
Teaching Activities

for



Teaching Activities are intended for use at home, in the classroom, and during story-times.

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Questions to ask children before reading the book

- What do you think the book is about by looking at the cover? (or one or two of the inside illustrations) *Sometimes it is easy to tell from the cover, other times it is not.*
- What does the cover illustration show?
- Does the title tell you what the book is about?
- Is there a subtitle to give more information?

What do children already know?

- Young children are naturally inquisitive and are sponges for information. The whole purpose of this activity is to help children verify the information they know (or think they know) and to get them thinking "beyond the box" about a particular subject.
- The children should write down their "concepts" (or adults for them if the children are not yet writing) on the provided chart found on the next page.
- Use the questions to get children thinking about what they already know. Feel free to add more questions or thoughts according to the child(ren) involved.

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What do children already know—activity chart

Ask children to write down what they think they know before reading the book. If the information is verified while reading the book, check "yes." If the information is wrong, mark "no" and cross it off. Write the correct information in another section, below. Make a note of how you verify the information.

What do I think I know?	Yes	No	Verified
What makes an animal a mammal?			Text Illustration Info in FCM Other
What is a marine mammal?			Text Illustration Info in FCM Other
Where do marine mammals live?			Text Illustration Info in FCM Other
Where do marine mammals get their oxygen? Air or water			Text Illustration Info in FCM Other
How do marine mammals breathe and sleep in the ocean?			Text Illustration Info in FCM Other
What is a group of orcas called?			Text Illustration Info in FCM Other

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What do I think I know?	Yes	No	Verified
Where do harbor seals sleep?			Text Illustration Info in FCM Other
What do dolphins do with their eyes when they sleep?			Text Illustration Info in FCM Other
Where do manatees live?			Text Illustration Info in FCM Other
How does a baby humpback stay with its mother?			Text Illustration Info in FCM Other
In what waters do belugas live?			Text Illustration Info in FCM Other
What helps walruses to hold their heads up?			Text Illustration Info in FCM Other
How do otters stay in one place while they sleep?			Text Illustration Info in FCM Other
Where is a good place for you to sleep?			Text Illustration Info in FCM Other

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Use this chart for any other thoughts the children might have.

What do I think I know?	Yes	No	Verified
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
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After reading the book – writing prompts & thinking it through

- Did the cover "tell" you what the book was about?
- If not, how does the illustration on the front relate to the story?
- Draw your own cover
- Write a song about how marine mammals sleep in the ocean
- Can you think of another title for the book?
- Would a child really be able to sleep in the ocean? Why do you think the illustrator painted the child sleeping in the water? *Because the child is dreaming…*
- Write or draw a description of how you would sleep in the ocean if you were a marine mammal.
- Describe how any of your body parts might change or adapt to help you live in the ocean.
- How do you think scientists have learned how these mammals sleep? *Note for teachers/parents: research that was obtained by watching mammals sleeping in an aquarium was not considered to be accurate unless researchers had also observed the same behavior in the wild.*

Re-read the book looking for more information

Go back and re-read the book studying each page carefully.

- What facts are mentioned in the text?
- What can be seen or inferred from the illustrations that is not or are not mentioned in the text?
- What, if anything, can be inferred from the text?
- Pause during second readings and ask the child(ren) if they remember what happens next.
- What would happen if a character did something different or if something different happened to the character? Would it/could it change the story?

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Comprehension Questions

- About how long do orcas rest underwater at a time?
- What part of a harbor seal's body is above water when it sleeps in the water?
- What does a dolphin do with its eyes when it sleeps?
- Where do manatees sleep?
- Where do humpback babies nap to stay with their mothers?
- What do northern fur seals look like when they sleep?
- Where are the beluga blowholes when they sleep?
- What helps walruses to keep their heads above water?
- Do elephant seals sleep at the surface or deep under the water?
- What do otters use to wrap around themselves while they sleep?
- Where is the best place for you to sleep?

What do children already—know activity conclusion

- Do the children have any more questions about marine mammals? If so, write them down on the chart.
- Identify whether the information was verified and how.
- If the concept is correct, make a note of how the information was confirmed (illustration, in text, in fun fact notes)
- If the concept was not correct, what IS the correct information – with above confirmation notes as above.
- If the concept was neither confirmed nor denied, look the information up in a reliable source and note where it was confirmed.
- Wrap it all up by adding notes with new information that they learned either through the reading or the research while looking up something else.

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Language Arts

Developing a vocabulary "word wall"

If using the book as a way to introduce a topic or subject, this is also a great way to introduce subject-related vocabulary words. If you don't have the time (or the inclination) to develop the word wall by playing the Vocabulary Game (below), we have provided a vocabulary list for you.

Vocabulary words for the "word wall" may be written on index cards, on a poster board, or on a chalk board. If writing on poster board or chalk board, you might want to sort into noun, verbs, etc. right away to save a step later. Leaving the words posted (even on a refrigerator at home) allows the children to see and think about them frequently.

Vocabulary game

This activity is designed to get children thinking of vocabulary words which will then be used as the beginning vocabulary list for a science lesson.

Select an illustration and give children a specific length of time (five minutes?) to write down all the words the children can think of about the particular subject. *If you do not have classroom sets of the book, it is helpful to project an illustration on a white board. Check our website (www.ArbordalePublishing.com) for book "previews" that may be used for this purpose.*

Their word list should include anything and everything that comes to mind, including nouns, verbs and adjectives. At the end of the time period, have each child take turns reading a word from his/her list. If anyone else has the word, they do nothing. If however, they are the only one with the word, they should circle it. While reading the list, one person should write the word on a flashcard or large index card and post it on a bulletin board or wall.

At the end, the child with the most words circled "wins." And you have a start to your science vocabulary list. *Note if children use an incorrect word, this is a good time to explain the proper word or the proper usage.*

Putting it all together

The following activities may be done all together or over a period of several days.

- Continue to add words to the vocabulary list as children think of them.
- Sort vocabulary words into nouns, verbs, adjectives, etc. and write what it is on the back of the card. When the cards are turned over, all you will see is "noun," etc. *(These can then be used to create silly sentences, below)*
- Now sort the vocabulary words into more specific categories. For example, nouns can be divided into plants, animals, rocks, minerals, etc. They can be divided into living/non-living, or into habitat-related words.
- Have children create sentences using their vocabulary words. Each sentence could be written on a separate slip of paper.
- Have children (individually or in small groups) sort and put sentences into informative paragraphs or a story.
- Edit and re-write paragraphs into one informative paper or a story.

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Suggested vocabulary list

nouns	verbs	adjectives
clown fish	boast	big
colors	brag	blue
coral reef	change	colorful
floor	claim	dark
flounder	cry	green
grass	dart	hungry
holes	explain	orange
ocean	groan	purple
octopus	hide	red
parrotfish	hold	stinging
plant	hope	white
porcupine fish	laugh	yellow
predator	moan	
prey	play	
reef	practice	
rocks	protect	
sand	puff	
sea anemone	shoot	
sea turtle	sigh	
seahorse	squirt	
shark	whine	
shell		
tail		
tentacles		

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Silly sentence structure activity

This is a fun activity that develops both an understanding of sentence structure and the science subject. Use words from the "word wall" to fill in the blanks. After completing silly sentences for fun, have children try to fill in the proper words by looking for the information in the book.

_____s _____ as they glide side by side in their pod.
noun verb

_____s _____ half-asleep; one eye closed to rest, one eye open to watch.
noun verb

Thick _____ under their skin keeps walruses warm.
noun

All _____ protect their young and feed their babies on mother's milk.
noun

_____ mammals are _____s that live in the ocean.
adjective noun

The _____ uses its _____s to dig for food in the sand.
noun noun

_____ whales float like white clouds, their _____ in the air.
noun noun

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Water Beds: Sleeping in the Ocean

Sequence sentence strips

Preparation: Cut into sentence strips, laminate if desired, and place in a "center." Have children put the events in order. Children may work alone or in small groups. Cards are in order but should be mixed up when cut apart.

It's night, little person, and you are tucked in your warm, dry bed.

You wonder what it would be like to sleep in the deep, deep sea.

You dream of sleeping with ten different marine mammals.

You know that a warm, cozy bed is the perfect spot for you to sleep.

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Word search

Find the hidden words. Even non-reading children can try to match letters to letters to find the words! Easy – words go up to down or left to right.

For older children, identify the coordinates of the first letter in each word (number, letter).

	A	B	C	D	E	F	G	H	I	J
1	F	Y	W	A	L	R	U	S	U	N
2	L	B	H	U	M	P	B	A	C	K
3	I	E	A	M	A	R	I	N	E	D
4	P	F	L	K	N	I	B	R	D	O
5	P	Q	E	D	A	G	U	Y	S	T
6	E	X	S	I	T	Z	O	O	E	T
7	R	U	N	B	E	L	U	G	A	E
8	F	L	U	K	E	S	E	W	L	R
9	H	I	N	V	S	O	R	C	A	S
10	D	O	L	P	H	I	N	J	W	O

__, __MARINE
__, __HUMPBACK
__, __MANATEES
__, __BELUGA

__, __DOLPHIN
__, __WHALES
__, __FLIPPER
__, __WALRUS

__, __SEAL
__, __ORCAS
__, __FLUKES
__, __OTTERS

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Science
Edible sorting and classifying activity

Gather together a cup of edible "sorting items." For example:

- As many different kinds of M&Ms as you can find
- Chocolate & peanut butter chips
- Hershey kisses
- Peanuts or other type of nuts

Ask the child to sort the items into groups. There is no right and wrong, only what makes sense to the child. When finished, ask the child:

What criteria or attribute (color, size, ingredient, etc.) did you use to sort the items?

- Are there some items that fit more than one group or don't fit any group?
- Is it easy to sort or were there some items that were a little confusing?

If more than one person did this, did everyone sort by the same criteria? To really extend the learning, graph the attributes used to sort the items. *(blank graph below)*

Sorting by attribute graph

Graph the attributes that children used to sort their items.
What was the most common attribute (size, shape, color, etc.) used?

10					
9					
8					
7					
6					
5					
4					
3					
2					
1					
Attribute:					

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Classifying animals

Animals can be sorted too. What are some attributes you might use to sort animals?

- By habitat
- Do they have backbones?
- Do they have arms or legs?
- How many legs do they have?
- Do they have stripes or patterns on their bodies?
- Do they walk, swim, jump, or fly?

Some things are very easy for scientists to sort or classify, other things are not so easy. The first question they will ask is whether the item is (or was) alive or not. Both plants and animals are living things.

If the item in question is an animal, like the animals in the story, scientists will then ask other questions:

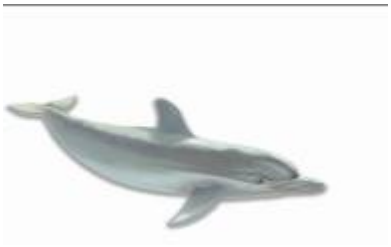
- Does it have hair or fur, feathers, or dry skin or scales?
- Does it breathe oxygen from air (lungs) or water (gills)?
- Are the babies born alive or from eggs?
- Does the baby eat milk from its mother?
- Is it warm or cold-blooded?
- How many body parts does the animal have?

By answering these (and other) questions, scientists can sort or classify the animals into "classes" such as mammal, bird, reptile, fish, amphibian, or insect.

Who is related to whom?

- Children will learn that mammals are a class of animals and share certain traits or characteristics
- They will compare and contrast mammals that live on land to those that live in the ocean (marine)
- They will learn about adaptations that help marine mammals live in their watery environment
- Copy the words in the boxes on the next two pages for each child or a group of children. Have them cut the words apart.
- Explain that objects may be grouped together for different reasons or by different methods.
- Ask children to look at the animal words and to try to put them into two different groups.
- After children have had a chance to work on this, have them share how they made their groups and which animals went into which group.
- Make a list of the attributes they used in their "classifications." Examples might include:
    - Number of legs or legs versus no legs
    - Where the animal lives
    - Hair or no hair
    - Size

HUMANS



DOLPHIN

SHARK

WHALE

PUFFER FISH

STING RAY

CATS

DOGS

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Explain to children that scientists sort or classify objects into smaller groups because it is easier to study and to work with items in smaller groups.

In this case, we are talking about mammals, the class of animals that share the following same characteristics:

- Mammals breathe air
- Mammals are warm-blooded (keep a constant body temperature)
- Mammals have hair for all or part of their lives
- Most mammals give live birth and the babies drink milk from their mother

Now have the children take the animal-word cards and try to determine which animals are mammals. *humans, cats, dogs, dolphins & whales – the others are all fish*

Have the children take the five "mammal" cards and divide into two groups: mammals that live on land and mammals that live in the ocean. Mammals that live in the ocean are called **Marine Mammals**.

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Water Beds: Sleeping in the Ocean Activity Cards

Copy or print these activity cards onto postcard stock or heavy paper. Separate or cut into cards.
Children may use cards for simple sorting according to the baby name, the classification or how they breathe.
Make a number line for minutes (time between breaths), width and size (chalk on playground or sidewalk).
Have children measure and place the cards on the number line accordingly.

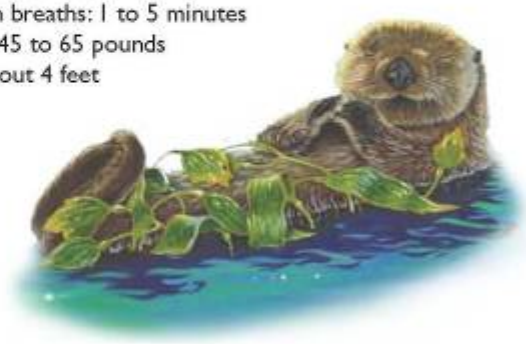
Water Beds: Sleeping in the Ocean
By Gail Langer Karwoski
Illustrated by Connie McLennan
www.SylvanDellPublishing.com

Walrus

Baby name: Pup
Classification order: Carnivora
How they breathe: Nose
Time between breaths: 10 to 12 minutes
Adult weight: 1,300 to 2,600 pounds
Adult size: 9.5 to 12 feet

Southern Sea Otter

Baby name: Pup
Classification order: Carnivora
How they breathe: Nose
Time between breaths: 1 to 5 minutes
Adult weight: 45 to 65 pounds
Adult size: about 4 feet



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Bottlenose Dolphin

Baby name: Calf
Classification order: Cetacean
How they breathe: Blowhole
Time between breaths: 6 to 8 minutes
Adult weight: 300 to 650 pounds
Adult size: 8 to 10 feet

Harbor Seal

Baby name: Pup
Classification order: Carnivora: Pinniped
How they breathe: Nose
Time between breaths: 15 to 28 minutes
Adult weight: 110 to 375 pounds
Adult size: 4 to 6.5 feet

Beluga Whale

Baby name: Calf
Classification order: Cetacean
How they breathe: Blowhole
Time between breaths: Up to 20 minutes
Adult weight: 1,000 to 2,000 pounds
Adult size: 11 to 15 feet

Northern Elephant Seal

Baby name: Pup
Classification order: Carnivora
How they breathe: Nose
Time between breaths: Up to 120 minutes
Adult weight: 1,500 to 4,500 pounds
Adult size: 10 to 13 feet

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Manatee

Baby name: Calf
Classification order: Sirinean
How they breathe: Nose
Time between breaths: 2 to 20 minutes
Adult weight: 1200 to 3000 pounds
Adult size: 10 to 15 feet

Northern Fur Seal

Baby name: Pup
Classification order: Carnivora: Pinniped
How they breathe: Nose
Time between breaths: up to 90 minutes
Adult weight (female): 65 to 90 pounds
Adult weight (male): 450 to 600 pounds
Adult size: 4 1/2 to 7 feet

Humpback Whale

Baby name: Calf
Classification order: Cetacean
How they breathe: Blowhole
Time between breaths: Up to 28 minutes
Adult weight: 25 to 40 tons
Adult size: 40 to 50 feet

Orca

Baby name: Calf
Classification order: Cetacean
How they breathe: Blowhole
Time between breaths: 3 to 12 minutes
Adult weight: 4 to 9 tons
Adult size: 23 to 32 feet

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Animal card games

Memory Card Game Make two copies of each of the sorting card pages and cut out the cards. Mix them up and place them face down on a table. Taking turns, each player should turn over two cards so that everyone can see. If the cards match, he or she keeps the pair and takes another turn. If they do not match, the player should turn the cards back over and it is another player's turn. The player with the most pairs at the end of the game wins.

Who Am I? Copy or download the cards. Poke a hole through the card and tie onto a piece of yarn. Each child should put on a "card necklace" so that the card is on their back. Each child should ask "yes/no" questions to guess what animal they are.

A day in the life of . . .

- Pick an animal from the book and pretend that you are that animal.
- Explain where you live (habitat).
- What do you eat?
- What animals might eat you?
- How do you protect yourself from those animals?
- Where do you sleep or rest?
- Write a paragraph about what do you do during the day (or night if nocturnal).

Life Cycles

Pick an animal from the book and research the life cycle of that animal.

- What are the babies called?
- How are the animals born? (hatched from eggs, born alive, etc.)
- How many brothers and sisters might be born at the same time?
- How big is the baby (length, height, weight, etc.) when born?
- What is the "house" like if applicable (nest, den, burrow)?
- Where is it found (underground, in trees, etc)?
- Which parent(s), if any, are involved in raising the young?
- What does the baby eat and for how long?
- How long will the babies stay with the parent (if parents are involved)?
- When is the "baby" considered an adult?
- How will it find a mate and have babies?
- Who prepares the nest/den and how (if applicable)?
- Some animals are only born at specific times of the year (to coincide with food availability). Is the animal born any time or just during special times of the year?

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Adaptations

Adaptations help animals to live in their habitat: to get food and water, to protect themselves from predators, to survive weather, and even to help them make their homes.

- Physical Adaptations include body shape. (teeth, feet, body covering, hair, blubber, ability to move, climb, etc.)
- Camouflage: color of skin or pattern to blend into background.
- Mimicry: Pretending to be something else to fool predators (Katydid)
- Behavior: opossum plays dead, social groups
- Migration: the seasonal movement of animals from one location to another
- Hibernation: a long, deep sleep in which the animals breathing and heartbeat are lower than usual.

Pick an animal from the book and try to figure out some of the animal's adaptations.

- How does it move and what parts of its body does it use to move?
- How does it see?
- How does it hear?
- How does it get its food?
- What parts of its body does it use to gather the food?
- How does it eat its food?
- What parts of the body does it use to eat the food? (teeth are different for carnivores than herbivores…)
- How does it hide from predators or prey (so it can catch the prey)?
- How does it protect itself from predators?
- In what habitat does it live?
- What adaptations does the animal need to help it survive in that habitat? (heat, cold, land, water, underground, high altitude, et.)
- Where does the animal live and does it make a "house?"
- Does it live alone or with a group?
- How does it "communicate" with others of its kind?
- How does it sleep?
- When does it sleep?
- Is food readily available all year?
- How does the animal deal with seasonal changes (if applicable)?

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Science journal

Have children draw a picture to define the vocabulary word or concept

mammal
Marine mammal
blowhole

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fluke
flippers
adaptation

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Math
Measuring and Comparing

Animals come in all shapes and sizes. Some animals are so small, that they can only be seen with a microscope. Other animals are so big that they are the size of a school bus when they are born!

It is easy to say that a dolphin is ten feet long or a humpback is 50 feet long, but what does that really mean? Try to imagine how big or small the animal is compared to something you know:

It if is small, what are some other things about the same size?
If it is very big, how many "things" would equal it?
What standard measuring tool would you use to measure something in:

- Inches or centimeters
- Feet or meters
- Pounds or kilograms

How big is that ten-foot dolphin?

- Using the right measuring tool (yard stick or measuring tape) and chalk, mark off how big ten feet is on the playground, sidewalk, or driveway.
- If you were to lie down on or next to the line, how many times would you have to lie down in order to equal the size of the dolphin?
- If someone shorter or taller than you did it, how many times do they have to lie down?
- How many times would an adult have to lie down?
- How many ten-foot dolphins would equal a 50-foot humpback?

Number line:

- Use a measuring tape and chalk, draw a 50-foot line on a driveway, sidewalk, or playground.
- Use the information on the animal sorting cards to see what the size range is for each animal and mark it off on the number line.
- Where do you fit on the number line?
- Are you bigger than any of the animals?

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Research and geography

Would all ten of the marine mammals in the book be found in the same part of the world?

If you live in a coastal state, which of the animals might be found in the waters off your state?

Water Beds
Sleeping In the Ocean

Where would you find each of the ten marine mammals?

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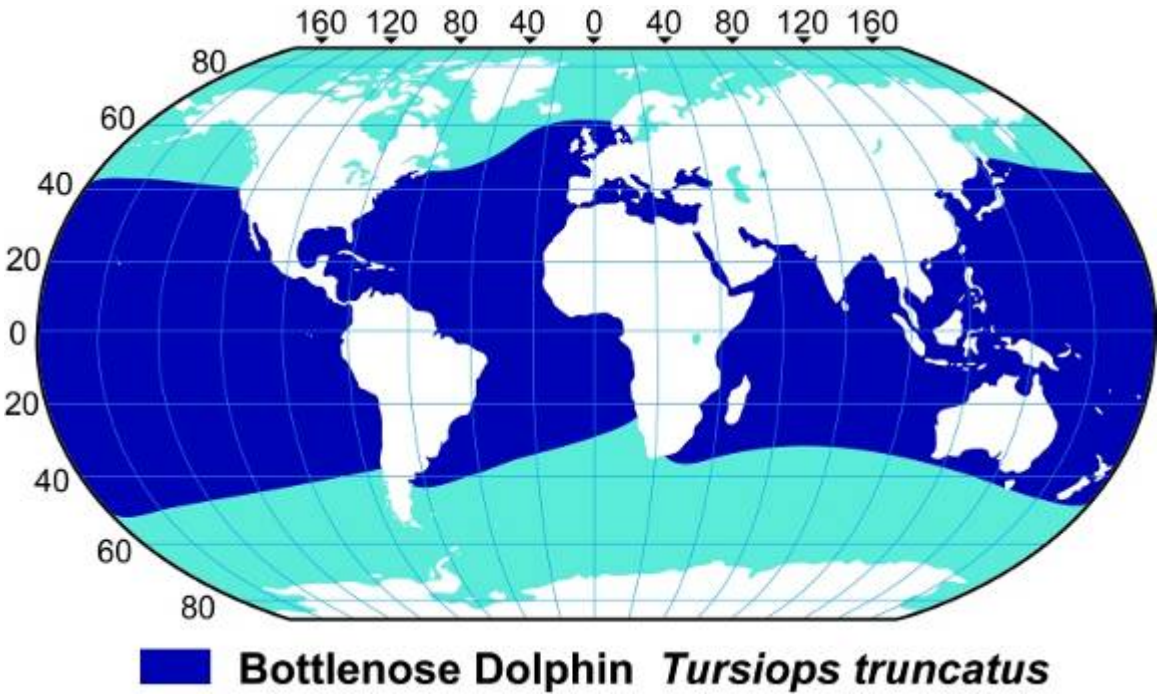
Bottlenose Dolphin Range & Distribution



http://www.acsonline.org/factpack/btlnose.htm

On the above map, the range and distribution of the bottlenose dolphin is shown in blue.

- What do you notice about where the dolphins live?
- Why do you think they don't live in the Arctic or Antarctic?
- What is the one continent that has no dolphins?
- If you live in Greenland, would you see a dolphin?
- If you live in Mexico, would you see a dolphin?

Bottlenose dolphins live in the ocean which is saltwater. They can frequently be seen in bays and estuaries along the coast as they look for food but they cannot live in freshwater.
There are some other types of dolphins that live in freshwater rivers. Research what types of dolphins they are and in which rivers they live.

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Character

According to Character Counts (http://www.charactercounts.org/defsix.htm), one of the six pillars of character is:

Citizenship

- Do your share to make your school and community a better place
- Cooperate with others
- Get involved in community affairs
- Stay informed; vote
- Be a good neighbor
- Obey laws and rules
- Respect authority
- Protect the environment

- Do you think it is important to help care for animals? Why or why not?
- What can you do to help protect and care for marine mammals even if you don't live close to the ocean?
- Even if you live in the middle of the country, your water eventually flows to an ocean. Look at a map and trace how water in your town might get to the ocean (streams to rivers to ocean).
- If there is trash or pollution in the water in your town, could it end up in the ocean?
- Could trash or pollution hurt marine mammals?
- What would you do if you were visiting the beach and found a marine mammal hurt on the beach? (See next page)

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Marine Mammal Strandings

Marine animals strand when they get trapped in shallow water or washed up on a beach and cannot get back to deep water. Very often, these animals have already died; but sometimes they are alive but are sick or injured.

What can you do to help if you find a sick or injured marine mammal or other animal?

- Determine your location so that you can report it.
- Figure out what type of animal it is and determine whether it is alive or dead.
- If it is alive, observe whether it is injured in some way or if it appears sick.
- Call a local aquarium, if there is one, as it is probably part of a national stranding network. If there is no local aquarium, or if you don't' know if there is one (maybe you are on vacation?), call the local police, Coast Guard, the State Department of Natural Resources, or the Fish and Wildlife office. Click here to locate a stranding center near you: http://www.nmfs.noaa.gov/pr/PR2/Health_and_Stranding_Response_Program/mmstranding_network.htm

To help the animal while you wait:

- First, DO NOT TOUCH THE ANIMAL!!!!! Marine animals may carry diseases that may be passable to you. You do not know why the animal is sick – do not' take any chances! Even visibly injured animals may be sick which is why they became injured.
- Try to pour ocean water (not fresh) on the animal to keep it hydrated. If it is a cetacean – do not get water in the blowhole. It is best to have an adult do this with a bucket keeping as much distance from the animal as possible. Under all circumstances, only one or two people should attempt this. All other people should remain at least 100 feet away from the animal. This will help to keep the animal calm and to prevent an injured animal from causing itself further harm.
- If necessary, apply wet towels or t-shirts to the body itself – do not cover flippers, fins, or blowholes.
- If possible, shade the animal to help avoid sunburn. Depending on the angle of the sun, people can hold up towels to provide a shaded area.
- In order to prevent injury to you or the animal, do not get close to the head or the tail.
- Not all marine mammals that are on the beach are stranded; seals, for example, may simply crawl up on the beach. Baby otters may have become separated from their mothers.

What can you do to help prevent strandings?

- Many strandings occur because the animal gets tangled up in or it eats garbage (plastic bags, balloons, fishing lines, etc.). Pick up garbage and dispose of it properly – no matter where you are!
- Marine mammals and sea turtles must come to the surface to breathe. As a result, fast-moving boats may hit them. This is especially true if the mammal is sleeping at the surface or is a slow-moving mammal like the manatee. If you are boating, keep an eye out for marine animals at the surface of the water. Go slow in Manatee zones.

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