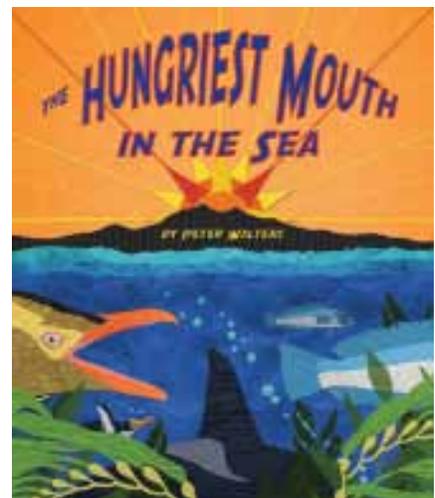


***THE HUNGRIEST MOUTH IN THE SEA
TEACHING ACTIVITY GUIDE***



Table of Contents

3	How to Use This Activity Guide (General)
4	What Do Children Already Know?
4	Pre-Reading Questions
5	Comprehension Questions & Writing Prompts
6	Cross-Curricular Vocabulary Activities
7	Word Bank
8	Cross-Curricular: Silly Sentences
9	Language Arts: Word Families & Rhyming Words
10	Word Search
11	Edible Sorting and Classifying Activity
13	Classifying Animals
14	Animal Chart
17	Vertebrate Classes
18	Dichotomous (Yes/No) Key
19	Animal Classification
20	Animal Sorting Cards
24	Science Journal (Vocabulary)
26	True or False?
27	Math Cards
29	Map Activity
30	Maps
31	Answers
33	Appendix A—"What Children Know" Cards
34	Appendix B—World Map
35	Appendix C—Vocabulary Cards



by Peter Walters

Copyright 2015 © Arbordale Publishing
These activities may be copied for
personal and non-commercial use in
educational settings.
www.ArbordalePublishing.com

Arbordale Publishing
Mt. Pleasant, SC 29464



How to Use This Activity Guide (General)

There are a wide variety of activities that teach or supplement all curricular areas. The activities are easily adapted up or down depending on the age and abilities of the children involved. And, it is easy to pick and choose what is appropriate for your setting and the time involved. Most activities can be done with an individual child or a group of children.

For teachers in the classroom: We understand that time is at a premium and that, especially in the early grades, much time is spent teaching language arts. All Arbordale titles are specifically selected and developed to get children excited about learning other subjects (science, geography, social studies, math, etc.) while reading (or being read to). These activities are designed to be as comprehensive and cross-curricular as possible. If you are teaching sentence structure in writing, why not use sentences that teach science or social studies? We also know and understand that you must account for all activities done in the classroom. While each title is aligned to all of the state standards (both the text and the For Creative Minds), it would be nearly impossible to align all of these activities to each state's standards at each grade level. However, we do include some of the general wording of the CORE language arts and math standards, as well as some of the very general science or social studies standards. You'll find them listed as "objectives" in italics. You should be able to match these objectives with your state standards fairly easily.

For homeschooling parents and teachers in private schools: Use as above. Aren't you glad you don't have to worry about state standards?

For parents/caregivers: Two of the most important gifts you can give your child are the love of reading and the desire to learn. Those passions are instilled in your child long before he or she steps into a classroom. Many adults enjoy reading historical fiction novels . . . fun to read but also to learn (or remember) about historical events. Not only does Arbordale publish stories that are fun to read and that can be used as bedtime books or quiet "lap" reading books, but each story has non-fiction facts woven through the story or has some underlying educational component to sneak in "learning." Use the "For Creative Minds" section in the book itself and these activities to expand on your child's interest or curiosity in the subject. They are designed to introduce a subject so you don't need to be an expert (but you will probably look like one to your child!). Pick and choose the activities to help make learning fun!

For librarians and bookstore employees; after-school program leaders; and zoo, aquarium, nature center, park & museum educators: Whether reading a book for story time or using the book to supplement an educational program, feel free to use the activities in your programs. We have done the "hard part" for you.

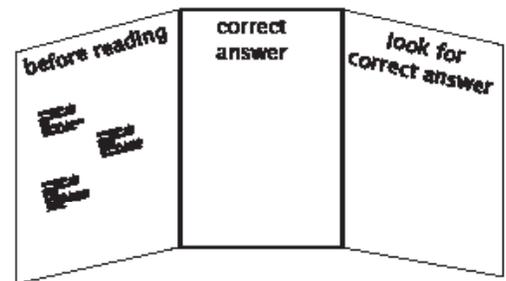
What Do Children Already Know?

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.

Before reading the book, ask the children what they know about the subject. A list of suggested questions is below. The children should write down their “answers” (or adults for them if the children are not yet writing) on the chart found in Appendix A, index cards, or post-it notes.

Their answers should be placed on a “before reading” panel. If doing this as a group, you could use a bulletin board or even a blackboard. If doing this with individual children, you can use a plain manila folder with the front cover the “before reading” panel. Either way, you will need two more panels—one called “correct answer” and the other “look for correct answer.”

Do the children have any more questions about the subject? If so, write them down to see if they are answered in the book.



After reading the book, go back to the questions and answers and determine whether the children’s answers were correct or not.

If the answer was correct, move that card to the “correct answer” panel. If the answer was incorrect, go back to the book to find the correct information.

If the children have more questions that were not answered, they should look them up.

When an answer has been found and corrected, the card can be moved to the “correct answer” panel.

Pre-Reading Questions

1. How many different sea creatures can you name?
2. Can you name a plant that lives in the sea?
3. Name the smallest sea creature you can think of. What do you think it eats?
4. What is a food web?
5. What do you think is at the top of the ocean food web? What does it eat?

Comprehension Questions & Writing Prompts

Explain major differences between books that tell stories and books that give information, (paired fiction & For Creative Minds non-fiction)

Identify basic similarities in and differences between two texts on the same topic. (story versus For Creative Minds non-fiction component)

Compare and contrast the most important points presented by two texts on the same topic. (story versus For Creative Minds non-fiction component)

With prompting and support, identify basic similarities in and differences between two texts on the same topic.

Ask and answer questions about key details in a text read aloud or information presented orally or through other media.

Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.

Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

Retell stories, including key details, and demonstrate understanding of their central message or lesson.

Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

1. What gets energy by taking in sunlight?
2. What eats the plankton?
3. What kind of plant do the cod swim through?
4. Which animal is poisonous?
5. Which two birds can swim underwater?
6. Which two fish have the sharpest teeth?
7. What is at the top of the food chain?
8. How many of these animals have you heard of before? Which are new to you?

Cross-Curricular Vocabulary Activities

Objective Core Language Arts:

Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content.

Identify new meanings for familiar words and apply them accurately (e.g., duck is a bird & the verb to duck). Use words & phrases acquired through conversations, reading/being read to, and responding to texts.

Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade-level topic or subject area.

Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.

Write informative/explanatory texts in which they introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.

Use frequently occurring adjectives.

Vocabulary Game: This activity is a very general idea and is designed to get children thinking of vocabulary words that will then be used as the beginning vocabulary list for a science lesson.

Select an illustration from the book and give the children a specific length of time (five minutes?) to write down all the words they can think of about the particular subject. It is helpful to project an illustration on a whiteboard. Use eBook or book preview found at www.ArbordalePublishing.com.

The children's word list should include anything and everything that comes to mind, including nouns, verbs, and adjectives. At the end of the time, have each child take turns reading a word from his/her list. If anyone else has the word, the reader does nothing. However, if the reader is the only one with the word, he/she 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 a child uses an incorrect word, this is a good time to explain the proper word or the proper usage.

Glossary/Vocabulary Words: Word cards may be used (see Appendix) or have children write on index cards, a poster board, or on a chalkboard for a "word wall." If writing on poster board or chalkboard, you might want to sort words into nouns, verbs, etc. right away to save a step later if using for Silly Sentences (on the next page). Leaving the words posted (even on a refrigerator at home) allows the children to see and think about them frequently. The glossary has some high-level words. Feel free to use only those words as fit your situation.

Using the Words: The following activities may be done all at once or over a period of several days.

- Sort vocabulary words into nouns, verbs, adjectives, etc. and write what they are on the backs of the cards. When the cards are turned over, all you will see is "noun," etc. (these can then be used for the "silly sentences" on the next page).
- After the cards have been sorted, go over the categories to ensure that all cards have been placed correctly. (Mistakes are a great opportunity to teach!)
- Choose two words from each category and write a sentence for each word.
- Write a story that uses at least ten vocabulary words from the word sort.
- 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.

Silly Sentence Structure Activity: This "game" 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 correct information in the book.

Word Bank

Adjective		Noun		Verb
salty		mouth		float
green		sea		soak
hungry		island		drift
pink		plankton		kick
deep		sun		dive
enormous		seahorse		hunt
blue		tentacle		swim
giant		krill		glide
odd		squid		flap
poisonous		kelp		feed
silver		cod		work
happy		stingray		jump
hundreds		predator		flow
cold		prey		look
black		wing		
white		fin		
furry		dolphin		
awesome		water		
		brain		
		food chain		
		seal		
		whale		
		brain		
		splash		
		South		
		swordfish		

Cross-Curricular: Silly Sentences

1. Far from the north, an _____ can be found. Earth's _____ seas _____ all around.
noun
adjective verb
2. _____ing out at sea, a cloud of _____
verb adjective
_____ drifts with the tide, _____ing up the
noun verb
_____.
3. Perhaps it's a petrel _____ing out of the skies, or
verb
maybe a _____ with _____ eyes?
noun adjective
4. But _____ -- a hungrier _____ in the seas of
verb noun
the _____!
noun
5. Through the giant _____, swims a shoal of
noun
_____ -- an underwater forest, how very
noun
_____!
adjective
6. Perhaps it's a _____ swiping its _____, or the
noun noun
_____ spine of a long-tail ray?
adjective
7. Flapping in the water, a herd of _____ seals feeds in
adjective
the bay, _____ with their meals.
adjective
8. Perhaps it's a great _____ shark with _____ of
adjective adjective
teeth, or maybe a sperm _____ from _____
noun adjective
waters beneath?
9. _____ing from the _____, an _____
verb noun adjective
orca whale brings, with a _____, an end to this tale.
noun

Language Arts: Word Families & Rhyming Words

Language Arts, Reading Standards: Foundational Skills, Recognize and produce rhyming words.

Word families are groups of words that have some of the same combinations of letters in them that make them sound alike...or rhyme. For example ad, add, bad, brad (Brad), cad, Chad, clad, dad, fad, gad, glad, grad, had, lad, mad, pad, plaid (silent 'i'), sad, shad, and tad all have an "ad" letter combination and rhyme.

- Find and write down rhyming words in the poem.
- Are they in the same word family?
- If so, circle the combination of letters that are the same.
- Can you think of more words in the word family?

Rhyming words are:

and

They are / are not from the same word family.

Other words that rhyme are:

Rhyming words are:

and

They are / are not from the same word family.

Other words that rhyme are:

Rhyming words are:

and

They are / are not from the same word family.

Other words that rhyme are:

Rhyming words are:

and

They are / are not from the same word family.

Other words that rhyme are:

Word Search

Find the hidden words. Even non-reading children can match letters to letters to find the words! Easy—words go up to down or left to right (no diagonals). 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	a	x	e	c	o	d	f	o	q	p
2	g	f	u	r	r	y	h	w	p	l
3	h	w	s	p	l	a	s	h	k	a
4	a	s	o	u	t	h	j	a	d	n
5	b	q	a	d	f	k	z	l	n	k
6	i	h	u	n	g	r	i	e	s	t
7	t	y	r	w	u	i	q	a	z	o
8	a	c	v	p	e	n	g	u	i	n
9	t	x	j	i	s	q	u	i	d	p
10	d	o	r	c	a	h	f	s	w	g

south
plankton
hungriest
squid
habitat
cod
penguin
furry
whale
orca
splash

Edible Sorting and Classifying Activity

Objective Core Language Arts Vocabulary Acquisition and Use: Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent.

Objects and materials can be sorted and described by their properties. (color, shape, size, weight and texture)

Use whole numbers, up to 10, in counting, identifying, sorting, and describing objects and experiences.*

Gather 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 children 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 feature or attribute (color, size, ingredient, etc.) did you use to sort the items?

- Were there some items that fit more than one group or don't fit any group?
- If so, how did the child decide which attribute was more important?
- How are various objects similar and different?
- Was 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 attribute? To extend the learning, graph the attributes used to sort the items (blank graph below).

Graph the attributes that children used to sort their items. (Graph provided on next page.)

What was the most common attribute (size, shape, color, etc.) used?

Objective: Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed.

Describe several external features and behaviors of animals that can be used to classify them (e.g., size, color, shape of body parts).

Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/ among different groups of animals.

10				
9				
8				
7				
6				
5				
4				
3				
2				
1				
attribute				

Classifying Animals

Objective: Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed.

Describe several external features and behaviors of animals that can be used to classify them (e.g., size, color, shape of body parts).

Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/among different groups of animals.

Just as we sort candy, scientists sort all living things into groups to help us understand and connect how things relate to each other. Scientists ask questions to help them sort or classify animals.

Based on the answers to the questions, scientists can sort the living organisms. The first sort is into a Kingdom. There are five commonly accepted Kingdoms: Monera, Protista, Fungi, Plantae, and Animalia. All of the living things in this book belong to Animalia or the Animal Kingdom.

The next big sort is into a Phylum. One of the first questions that a scientist will ask is whether the animal has (or had at some point in its life) a backbone. If the answer is “yes,” the animal is a vertebrate. If the answer is “no,” the animal is an invertebrate.

Each Phylum is broken down into Classes, like mammals, birds, reptiles, fish, amphibians, insects, or gastropods (snails). Then each class can be broken down even further into orders, families, genus and species, getting more specific.

The scientific name is generally in Latin or Greek and is the living thing’s genus and species. People all over the world use the scientific names, no matter what language they speak. Most living organisms also have a common name that we use in our own language.

Some questions scientists ask:

- Does it have a backbone?
- What type of skin covering does it have?
- Does it have a skeleton? If so, is it inside or outside of the body?
- How many body parts does the animal have?
- Does it get oxygen from the air through lungs or from the water through gills?
- Are the babies born alive or do they hatch from eggs?
- Does the baby drink milk from its mother?
- Is it warm-blooded or cold-blooded?

Using what you know, and information and pictures in the book, see how many Animal Chart squares you can fill in for each animal.

Animal Chart

	Animals		
Appendages	legs (how many)		
	flippers/fins		
	wings		
	tail/no tail		
	horns/antlers		
Feet or hands: if they have; may have more than one	claws		
	web		
	toes		
	opposable thumbs/toes		
	hooves		
Movement: may do more than one	walks/runs		
	crawls		
	flies		
	slithers		
	swims		
	climbs		
	hops		
Backbone	backbone/vertebrate		
	no backbone/invertebrate		
Skeleton	inside skeleton (endoskeleton)		
	outside skeleton (exoskeleton)		
	no skeleton		
Body covering	hair/fur/whiskers/quills		
	feathers		
	dry scales or bony plates		
	moist scales		
	smooth, moist skin		
	hard outer shell		
Color/patterns	stripes or spots		
	mostly one color		
	skin color changes		
	bright, vivid colors		
Gets oxygen	lungs		
	gills		
Body temperature	warm-blooded (endothermic)		
	cold-blooded (ectothermic)		
Babies	born alive		
	hatch from eggs		
	born alive or hatch from eggs		
Metamorphosis	complete		
	incomplete		
	none		
Teeth	sharp		
	flat		
	no teeth (bill/beak)		
Food	plant eater (herbivore)		
	meat eater (carnivore)		
	both (omnivore)		

	Animals		
Appendages	Legs (how many)		
	flippers/fins		
	wings		
	tail/no tail		
	horns/antlers		
Feet or hands: if they have, may have more than one	claws		
	web		
	toes		
	opposable thumbs/toes		
	hooves		
Movement: may have more than one	walks/runs		
	crawls		
	flies		
	slithers		
	swims		
	climbs		
	hops		
Backbone	backbone/vertebrate		
	no backbone/invertebrate		
Skeleton	inside skeleton (endoskeleton)		
	outside skeleton (exoskeleton)		
	no skeleton		
Body covering	hair/fur/whiskers/quills		
	feathers		
	dry scales or bony plates		
	moist scales		
	smooth, moist skin		
	hard outer shell		
Color/patterns	stripes or spots		
	mostly one color		
	skin color changes		
	bright, vivid colors		
Gets oxygen	lungs		
	gills		
Body Temperature	warm-blooded (endothermic)		
	cold-blooded (ectothermic)		
Babies	born alive		
	hatch from eggs		
	born alive or hatch from eggs		
Metamorphis?	complete		
	incomplete		
	none		
Teeth	sharp		
	flat		
	no teeth (bill/beak)		
Food	plant eaters (herbivore)		
	meat eater (carnivore)		
	both (omnivore)		

	Animals		
Appendages	Legs (how many)		
	flippers/fins		
	wings		
	tail/no tail		
	horns/antlers		
Feet or hands: if they have, may have more than one	claws		
	web		
	toes		
	opposable thumbs/toes		
	hooves		
Movement: may have more than one	walks/runs		
	crawls		
	flies		
	slithers		
	swims		
	climbs		
	hops		
Backbone	backbone/vertebrate		
	no backbone/invertebrate		
Skeleton	inside skeleton (endoskeleton)		
	outside skeleton (exoskeleton)		
	no skeleton		
Body covering	hair/fur/whiskers/quills		
	feathers		
	dry scales or bony plates		
	moist scales		
	smooth, moist skin		
	hard outer shell		
Color/patterns	stripes or spots		
	mostly one color		
	skin color changes		
	bright, vivid colors		
Gets oxygen	lungs		
	gills		
Body Temperature	warm-blooded (endothermic)		
	cold-blooded (ectothermic)		
Babies	born alive		
	hatch from eggs		
	born alive or hatch from eggs		
Metamorphis?	complete		
	incomplete		
	none		
Teeth	sharp		
	flat		
	no teeth (bill/beak)		
Food	plant eaters (herbivore)		
	meat eater (carnivore)		
	both (omnivore)		

Vertebrate Classes

Objective: Compare structures (e.g., wings vs. fins vs. legs; gills vs. lungs; feathers vs. hair vs. scales) that serve similar functions for animals belonging to different vertebrate classes

Mammals:

hair, fur, whiskers, or quills at some point during their lives
backbone (vertebrate)
inside skeleton (endoskeleton)
lungs to breathe
most give birth to live young
produce milk to feed young
warm-blooded

Birds:

feathers
backbone (vertebrate)
inside skeleton (endoskeleton)
lungs to breathe
hatch from hard-shelled eggs
warm-blooded

Reptiles:

dry scales or plates
backbone (vertebrate)
inside skeleton (endoskeleton); most turtles also have a hard outer shell
lungs to breathe
most hatch from leathery eggs
cold-blooded

Warm-blooded animals make their own heat and have a constant body temperature

Cold-blooded animals' body temperature comes from their surroundings

Fish:

most have scales covered with a thin layer of slime
backbone (vertebrate)
inside skeleton (endoskeleton)
gills to breathe
babies are either born alive or hatch from jellylike eggs
cold-blooded

Amphibians:

soft, moist skin
backbone (vertebrate)
inside skeleton (endoskeleton)
most hatchlings (jellylike eggs) are called larvae or tadpoles and live in water, using gills to breathe
as they grow, they develop legs and lungs and move onto land
cold-blooded

Using the sorting cards, sort the animals into their class.

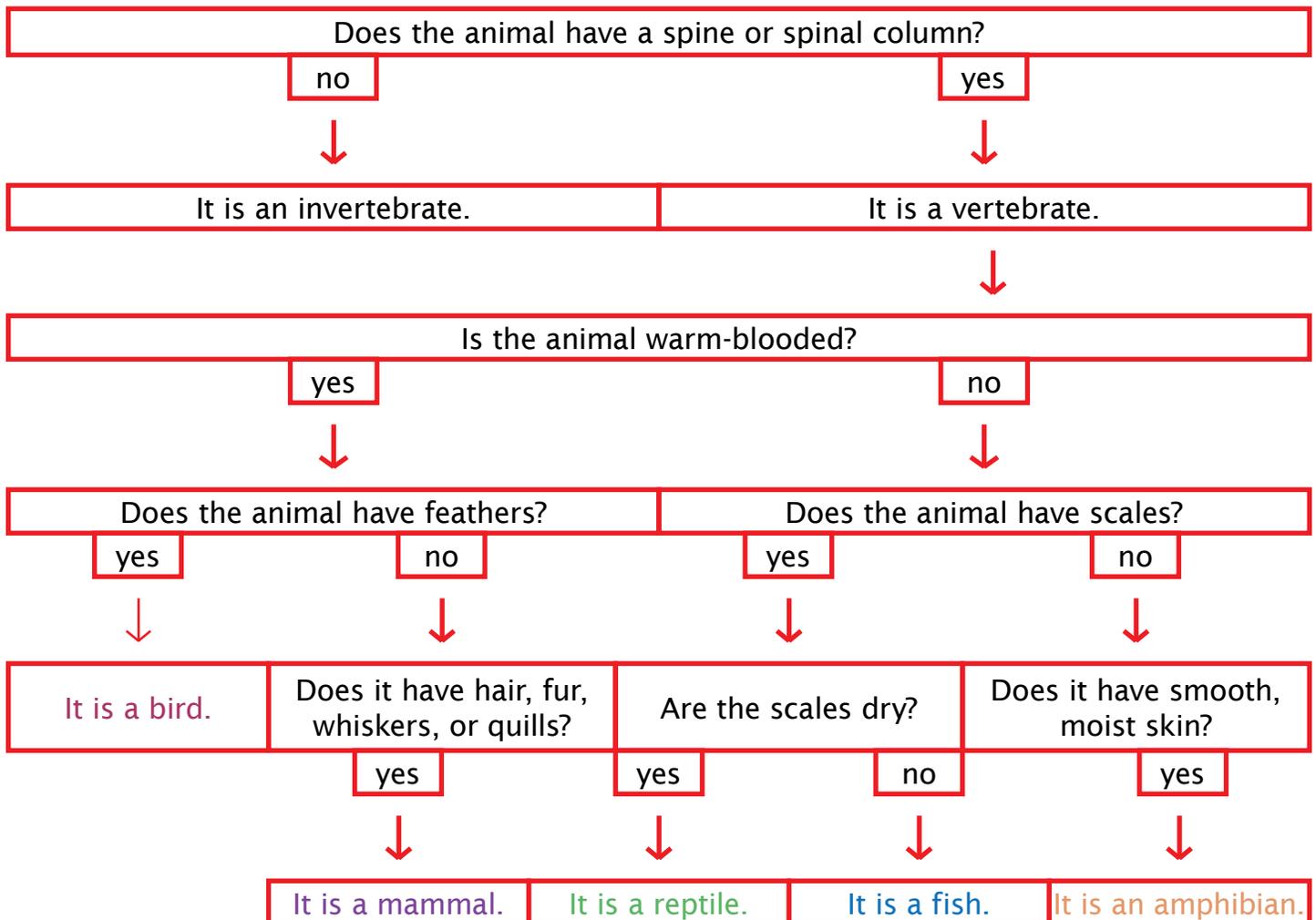
Dichotomous (Yes/No) Key

A dichotomous key helps to sort (classify) animals. These keys work by asking yes or no questions. Each answer leads to another yes or no question, until the animal class is identified. There are five classes of animals with backbones (vertebrates): fish, reptiles, amphibians, birds, and mammals. Use the information found in the book to match the animal to its classification.

Objective: Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed.

Describe several external features and behaviors of animals that can be used to classify them (e.g., size, color, shape of body parts).

Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/among different groups of animals.



Animal Classification

Use the dichotomous key on the previous page to classify these South Sea animals. Identify whether the animal is a vertebrate or an invertebrate. Then sort each vertebrate animal into one of the five classes: fish, amphibian, reptile, bird, or mammal.



Moon jellies drift in seas and oceans all around the world. They travel wherever the tides take them. Like other jellyfish, moon jellies do not have spines—or any bones at all!



Yellow-eyed penguins live only in the South Sea off the coast of New Zealand. They have spines and are warm-blooded. They have feathers and wings. They cannot fly in air, but they zoom through the water.



Blue cod swim in shallow water around New Zealand. They have backbones and are cold-blooded. Wet scales cover their bodies. Blue cod weigh up to 6.5 pounds (3kg)—as much as a newborn baby.



Antarctic krill grow up to 2.4 inches (6 cm) long, about the same size as an adult's pinky finger. They live in large groups called swarms. Krill have no backbones. Antarctic krill live in the Southern Ocean.



Squids have eight arms and no spines. They live all around the world. The giant squid is bigger than a school bus—50 feet (15.25 m) long! The smallest squid species is only 1.2 inches (3cm) long.



Orcas swim in every ocean and prefer cool water. They have backbones and are warm-blooded. Newborn orcas have hair. These fierce hunters are also called killer whales.

Animal Sorting Cards

Objective: Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed.

Describe several external features and behaviors of animals that can be used to classify them (e.g., size, color, shape of body parts).

Identify observable similarities and differences (e.g., number of legs, body coverings, size) between/among different groups of animals.

Animal Card Games:

Sorting: Depending on the age of the children, have them sort cards by:

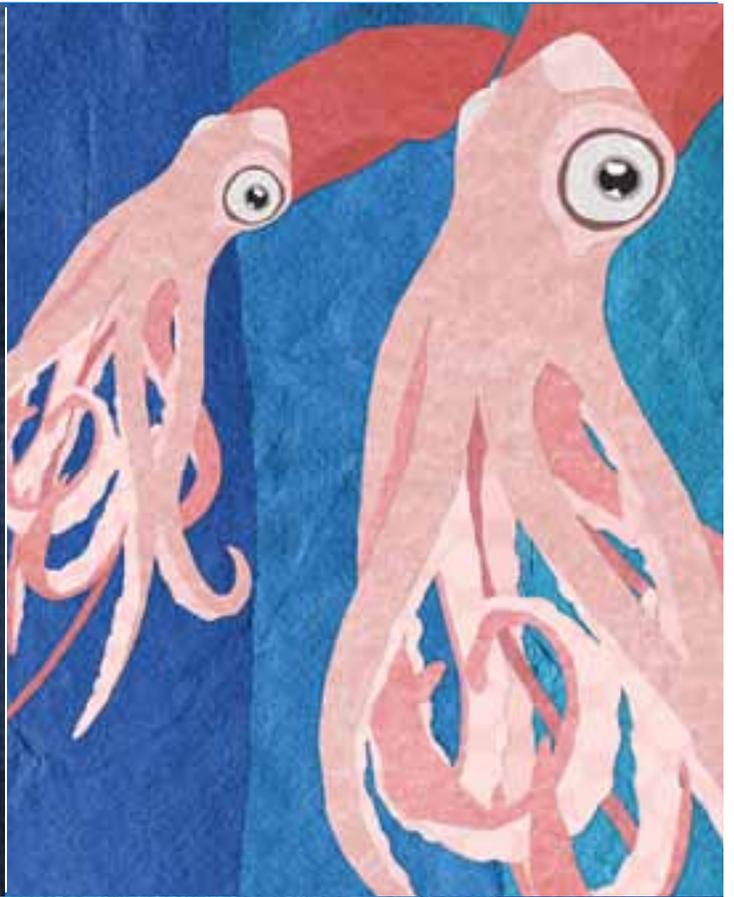
where the animals live (habitat)	tail, no tail
number of legs (if the animals have legs)	colors or skin patterns
how they move (walk, swim, jump, or fly)	animal class
type of skin covering (hair/fur, feathers, scales, moist skin)	
what they eat (plant eaters/herbivores, meat eaters/carnivores, both/omnivores)	

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 and cut out the cards. Poke a hole through each one and tie onto a piece of yarn. Have each child put on a "card necklace" without looking at it so the card hangs down the back. The children get to ask each person one "yes/no" question to try to guess "what they are." If a child answering the question does not know the answer, he/she should say, "I don't know." This is a great group activity and a great "ice-breaker" for children who don't really know each other.

Charades: One child selects a card and must act out what the animal is so that the other children can guess. The actor may not speak but can move like the animal and imitate body parts or behaviors. For very young children, you might let them make the animal sound. The child who guesses the animal becomes the next actor.







Science Journal (Vocabulary)

food web

my definition

my drawing

mammal

my definition

my drawing

apex predator

my definition

my drawing

endangered

my definition

my drawing

True or False?

Objective: Critical thinking skills

Circle whether you think the statement is true or false:

1. T/F An animal is either a predator or a prey but can't be both.
2. T/F Phytoplankton are the bottom of the ocean food web because they make their own food through photosynthesis.
3. T/F A mammal cannot live in the water.
4. T/F Penguins are birds that can swim underwater.
5. T/F An apex predator has many other predators in its habitat.
6. T/F Seals are the apex predator of the ocean.
7. T/F When a species dies out completely, it is extinct.
8. T/F Orcas can eat sharks.
9. T/F Squids can eat sharks.
10. T/F Jellyfish do not eat.

Math Cards

Objective Core Mathematics Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (up to 10)

Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

Use numbers, up to 10, to place objects in order, such as first, second, and third, and to name them

For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

Math Card Games

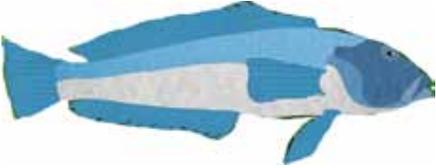
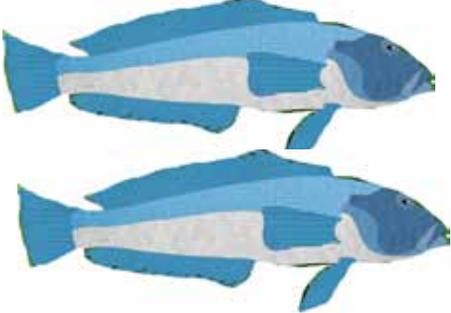
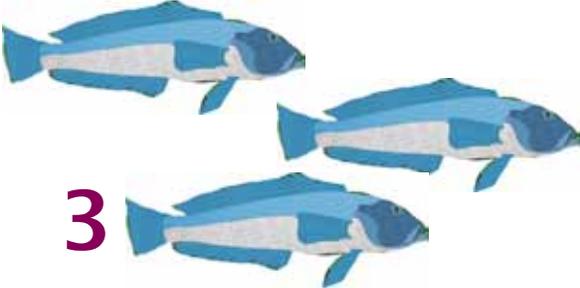
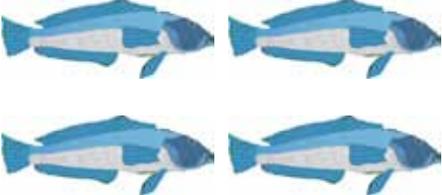
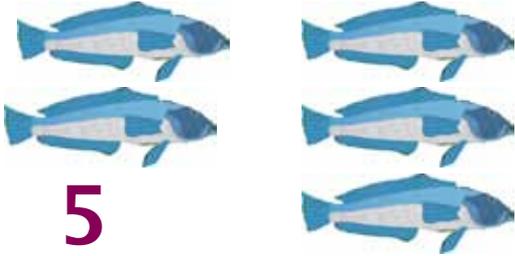
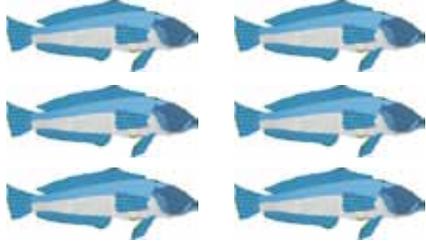
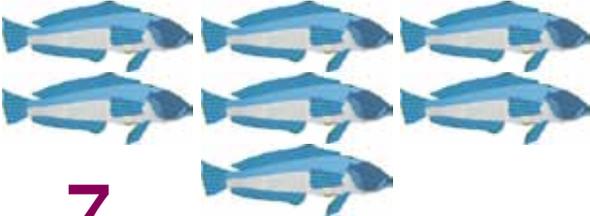
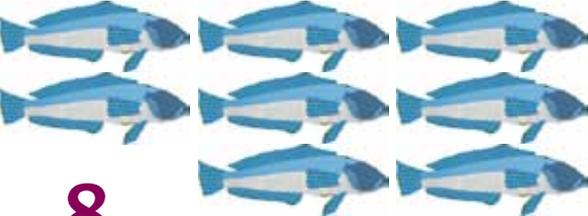
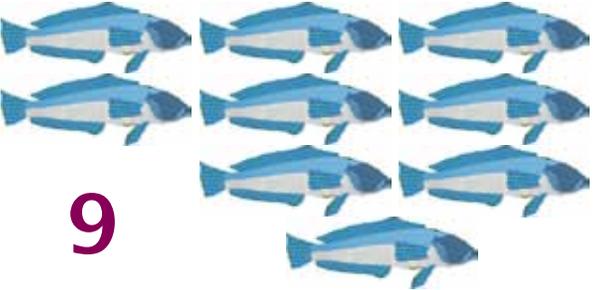
(Make four copies of the math cards to play these games):

Tens Make Friends Memory Game is a combination of a memory and adding game.

- Play like the memory game, above.
- If the animal numbers add up to 10, the child keeps the pair and takes another turn.
- If they do not add up to ten, the player should turn the cards back over and it is another player's turn.

Go Fish for Fact Families is a twist on "Go Fish."

- Shuffle cards and deal five cards to each player. Put the remaining cards face down in a draw pile.
- If the player has three cards that make a fact family, he/she places them on the table and recites the four facts related to the family. For example, if someone has a 2, 3, and 5, the facts are: $2 + 3 = 5$, $3 + 2 = 5$, $5 - 2 = 3$, $5 - 3 = 2$.
- The player then asks another player for a specific card rank. For example: "Sue, please give me a 6."
- If the other player has the requested card, she must give the person her card.
- If the person asked doesn't have that card, he/she says, "Go fish."
- The player then draws the top card from the draw pile.
- If he/she happens to draw the requested card, he/she shows it to the other players and can put the fact family on the table. Otherwise, play goes to the next person.
- Play continues until either someone has no cards left in his/her hand or the draw pile runs out. The winner is the player who then has the most sets of fact families.

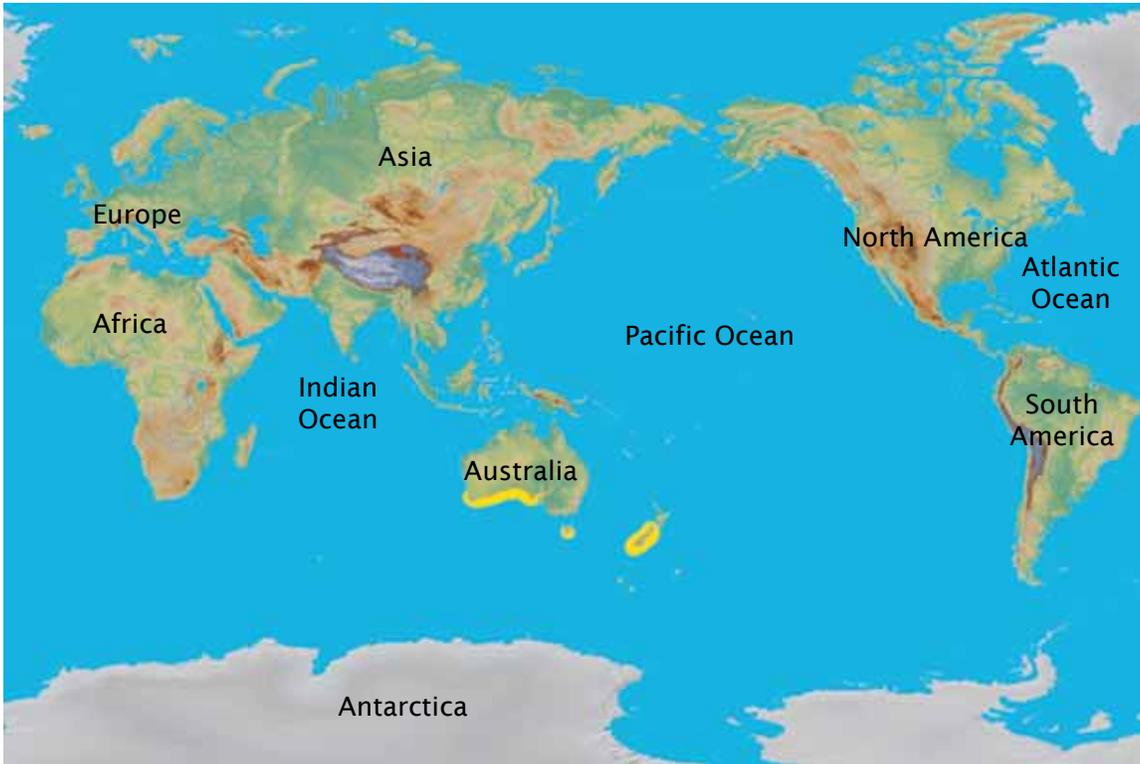
<p>1</p> 	<p>2</p> 
<p>3</p> 	<p>4</p> 
<p>5</p> 	<p>6</p> 
<p>7</p> 	<p>8</p> 
<p>9</p> 	

Map Activity

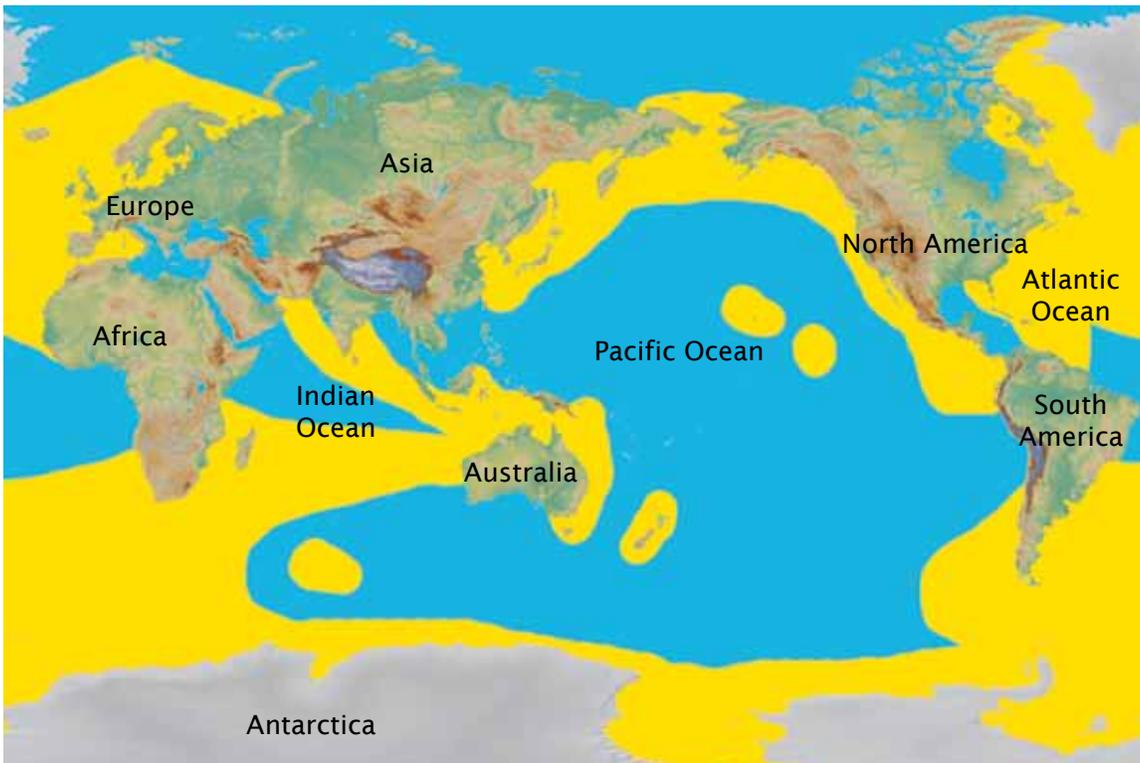
Objective: reading maps, geography, know that plants and animals live in different locations

Using these maps as a reference, color the areas where these animals live on the blank map (in appendix). Click on the animal name to go to the map source.

Do any of these animals live in the ocean or sea closest to you?



brown fur seal



orca

Maps



Hector's dolphin



sperm whale

Answers

Silly Sentences:

1. Far from the north, an island can be found. Earth's salty seas flow all around.
2. Floating out at sea, a cloud of green plankton drifts with the tide, soaking up the sun.
3. Perhaps it's a petrel diving out of the skies, or maybe a squid with enormous eyes?
4. But look -- a hungrier mouth in the seas of the South!
5. Through the giant kelp, swims a shoal of cod -- an underwater forest, how very odd!
6. Perhaps it's a swordfish swiping its prey, or the poisonous spine of a long-tail ray?
7. Flapping in the water, a herd of furry seals feeds in the bay, happy with their meals.
8. Perhaps it's a great white shark with hundreds of teeth, or maybe a sperm whale from cold waters beneath?
9. Jumping from the sea, an awesome orca whale brings, with a splash, an end to this tale.

Word Search:

	A	B	C	D	E	F	G	H	I	J
1				c	o	d				p
2		f	u	r	r	y		w		l
3	h		s	p	l	a	s	h		a
4	a	s	o	u	t	h		a		n
5	b							l		k
6	i	h	u	n	g	r	i	e	s	t
7	t									o
8	a			p	e	n	g	u	i	n
9	t				s	q	u	i	d	
10		o	r	c	a					

Animal Classification:

Moon jellies: **Invertebrate**

Yellow-eyed penguins: **Bird**

Blue cod: **Fish**

Antarctic krill: **Invertebrate**

Squids: **Invertebrate**

Orcas: **Mammal**

True or False:

Circle whether you think the statement is true or false:

1. T/F An animal is either a predator or a prey but can't be both.
A seal eats penguins (is a predator) and is eaten by sharks (is prey).
2. T/F Phytoplankton are the bottom of the ocean food web because they make their own food through photosynthesis.
3. T/F A mammal cannot live in the water.
Seals, dolphins, and whales are all mammals.
4. T/F Penguins are birds that can swim underwater.
5. T/F An apex predator has many other predators in its habitat.
An apex predator has no natural predators in its habitat.
6. T/F Seals are the apex predator of the ocean.
Orcas are the apex predator of the ocean.
7. T/F When a species dies out completely, it is extinct.
8. T/F Orcas can eat sharks.
9. T/F Squids can eat sharks.
Squids eat krill and small fish.
10. T/F Jellyfish do not eat.
Jellyfish eat krill.

Appendix B—World Map



Appendix C—Vocabulary Cards

food web

**marine
mammal**

endangered

extinct

apex predator

prey