

# COUSTEAU *kids*

EXPLORING NATURE AND SCIENCE AROUND THE WORLD

## November/December 2009 Teacher's Guide

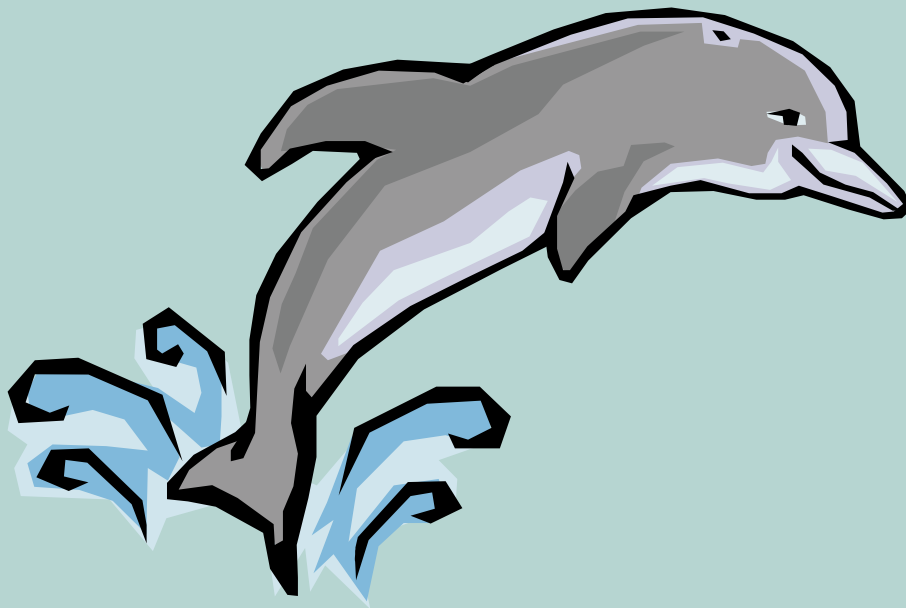


# COUSTEAU *Kids*

EXPLORING NATURE AND SCIENCE AROUND THE WORLD

In this issue of *Cousteau Kids*, students will read about:

- ▶ sea anemone
- ▶ the barreleye
- ▶ Antarctic fur seals
- ▶ the Weddell Sea
- ▶ a dolphin named Winter



Understands the structure and function of cells and organisms  
 Knows that animals have certain features that help them live in different environments

## WINTER'S TALE

### Key Words:

**vertebrae:** bones that make up part of the spine

**peduncle:** a part that connects the body and tail

**prostheses:** a manmade part that is used to replace a body part

### Before reading:

For a kinesthetic approach to reading, get students to swim like a fish (swimming with a tail from side to side) and then like a dolphin (moving a tail up and down). You can also have students use their hands as flippers to move forward and then left or right. Ask: *What would happen if a dolphin lost its tail?*

### During reading:

Have students list three important facts about a dolphin's tail: [Answers provided]

1. A dolphin has a very powerful tail.
2. A dolphin's tail work like a pogo stick to push the dolphin forward in water.
3. The peduncle connects a dolphin's tail to the rest of it body. It works like a wrist.

### After reading:

To check comprehension, list the names of a few people mentioned in the article and have students write how they helped Winter. Start with: Jim Savage (local fisherman), Abby Stone (Winter's head trainer), and David Yates (Clearwater Marine Aquarium's CEO). Ask: *Do you think these people are heroes, and why? What other people helped Winter in her recovery?* [Answer: about 150 volunteers and doctors and the people at Hangar Prosthetics and Orthotics]

### Mini Lesson: Tail/Tale

For an opportunity to teaching language arts in the content area, introduce the term *homophone*. A *homophone* is a word that sounds like another word but has a different meaning and spelling. The words *tale* and *tail* are homophones. Student page # 2 asks students to write a complete list of homophones. To extend the lesson, continue the assignment over the school break for students who enjoy the word study and want to earn extra credit. Assign 4-5 words to each student and ask them to write down the definitions on the back of the page. Challenge students to find as many ocean-related words kids can find. Provide one word from each of the following pairs: *beach/beechn*, *current/currant*, *knot/not*, *mast/massed*, *muscle/mussel*, *naval/navel*, *sea/see*, and *whale/wail*. Wrap up the mini-lesson by holding a special "Spelling Be/Bee" to review the new words.

Standard 6  
Understands the relationships among organisms and their physical environment  
Knows ways in which organisms interact and depend on one another through food chains and food webs

# SEA ANEMONE: The Flower of the Sea

## Key Words:

**mucus:** a thick, sticky substance that moistens and protects

**sessile:** attached or stuck in one place

**symbiosis:** animals that live together and help each other in some way

## Before reading:

To set anticipation, ask students to list three things they think a sea anemone uses its tentacles for.

### 3 Things I Know About Tentacles

Before reading:

- 1.
- 2.
- 3.

After reading:

- 1.
- 2.
- 3.

## After reading:

Describe the difference between a plant and a sea anemone. Provide students with a description of a plant.

Plants:

1. Plants can make their own food by getting energy from the sun.
2. Plants can't move.
3. Most plants have stems, leaves, and roots. Some grow roots and flowers.

A sea anemone is not a plant because:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

# MEET A SEA ANEMONE EXPERT!

Standard 12

**Understand the nature of scientific inquiry**  
Knows that learning can come from careful observations and simple experiments

**Key Words:**

**ancestor:** a distant person from whom others are related

**submersible:** an underwater craft that is used to study deep parts of the ocean

**Before reading:**

In our interview with Dr. Fautin, she says she was inspired to study sea anemones by her teacher. Ask students to talk about a teacher, coach, parent, tutor, or instructor that got them to like a school subject, book, sport, or hobby.

**During reading:**

Have students preread the true or false questions below. As they read, students should circle a T for True or F for False. [Answers: 1. T, 2. T, 3. F, 4. F, 5. T]

1. The best time to observe shallow water sea anemones is in the early morning. T F
2. A clownfish can get stung by a sea anemone. T F
3. Clownfish never live with small sea anemones. T F
4. A clownfish is the only fish that is covered in a special mucus. T F
5. Scientists don't know for sure why some sea anemone don't sting some kinds of clownfish. T F

**After reading:**

List three places Dr. Fautin traveled to study sea anemones and then find them on a class map.

[Answers: Antarctica, Papua New Guinea (above Australia), British Columbia (western Canada), and Singapore (near Malaysia)]

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

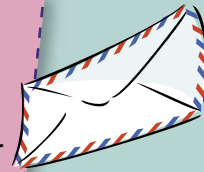
## LET'S GO FISHING:

Answers to Student Page 4 ("Let's Go Fishing" scavenger hunt)

1. Mexico p.21
  2. pom pom crab p.10
  3. Antarctic fur seal p. 18
  4. peduncle p.7
  5. king penguin, emperor penguin p.20
  6. David Yates p.6
  7. loach p. 23 (Sea Queries)
  8. sea jellies p.19
  9. University of Kansas p.14
  10. clownfish, anemone crab, pom pom crab p.10
  11. symbiosis p. 10
  12. whale fall p.17
  13. more than 1,000 p.11
  14. Weddell seal p.20
  15. Atlantic Ocean p.16
- CK EXTRA! January 30, 2010 p.4

Write to Cousteau Kids at:

Cousteau Kids  
732 Eden Way North  
Suite E, #707  
Chesapeake, VA 23320



Standards

*Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education*, 4th Edition Mid-continent Research for Education and Learning (McREL) and Association for Supervision and Curriculum Development  
[www.mcrel.org/compendium/browse.asp](http://www.mcrel.org/compendium/browse.asp)

*New York State Math, Science & Technology Standards*, The University of the State of New York, The State Education Department [www.emsc.nysed.gov](http://www.emsc.nysed.gov)

Name \_\_\_\_\_

Date \_\_\_\_\_

## FAIRY “TAIL”

In this issue you read the true story of Winter, a dolphin that got caught in a crab trap and lost her tail. Winter’s tale is so amazing, it’s hard to believe that it really happened. In fact, it has a lot of the same elements as a fairy tale. Winter’s story starts out with a main character in trouble. There’s a big problem that needs to be solved and many heroic characters that help out. Like most fairy tales, Winter’s story has a happy ending and teaches an important lesson. You can take Winter’s true tale and turn it into a fairy tale by adding a few ideas and a little imagination! (Add things like: *Once upon a “tide”* and a *fairy “cod”mother*.)

**Directions:** Turn Winter’s true story into a fairy tale by adding all the right story elements. Use the story planner below to get your outline going.

<p><b>SETTING:</b> The ocean or sea?</p>	<p><b>CHARACTERS:</b> List your good (and bad) characters.</p>
<p><b>MAKE BELIEVE:</b> Here’s where the magic starts!</p>	<p><b>REPETITION:</b> Things that happen or get said again and again.</p>
<p><b>PROBLEM:</b> What is the conflict of the story?</p>	<p><b>RESOLUTION:</b> How will the problem be solved?</p>
<p><b>LESSON:</b> The main idea you want your readers to know.</p>	

**CK EXTRA!**

We’d love to read your tale. Send it to us at [cousteaukids@cousteausociety.org](mailto:cousteaukids@cousteausociety.org)

Name \_\_\_\_\_ Date \_\_\_\_\_

# A TALE about a TAIL

In this issue, you read about a dolphin that lost its *tale*. Oops! That's the wrong spelling. We meant to write *tail*. The words tail and tale are called homophones (TK). They sound the same but they have a different meaning and spelling. A tail is a TK. A tale is a story. How many other homophones do you know?

**Directions:** Complete this alphabetical list of homophones. Write a word on the line that sounds the same as the word, but is spelled differently. We included a few clues to help you along. Don't peek in a dictionary. The goal is to spell the word correctly!

A: ant \_\_\_\_\_ (a relative)

N: naval \_\_\_\_\_ (belly button)

B: be \_\_\_\_\_ (It stings!)

O: or \_\_\_\_\_ (for rowing a boat)

C: capital \_\_\_\_\_ (a building)

P: passed \_\_\_\_\_ (the opposite of present)

D: deer \_\_\_\_\_ (start of a letter)

Q

E: eye \_\_\_\_\_ (a pronoun)

R: roam \_\_\_\_\_ (the capital of Italy)

F: flower \_\_\_\_\_ (used when baking)

S: sea \_\_\_\_\_ (with your eyes)

G: genes \_\_\_\_\_ (denim pants)

T: to \_\_\_\_\_ (the number)

H: hey \_\_\_\_\_ (is for horses)

U

I: in \_\_\_\_\_ (a place to sleep)

V: vane \_\_\_\_\_ (carries blood to the heart)

J: jamb \_\_\_\_\_ (a lot like jelly)

W: we'd \_\_\_\_\_ ( a plant that overgrows)

K: know \_\_\_\_\_ (opposite of yes)

X

L: lay \_\_\_\_\_ (a necklace of flowers)

Y: your \_\_\_\_\_ ( a contraction)

M: muscle \_\_\_\_\_ ( a mollusk)

Z

## CK EXTRA!
















We didn't add words for Q, U, X, and Z because we couldn't think of homophones for those letters. Can you find any? We found none but there is a homophone for that word. Do you know what it is?

Name \_\_\_\_\_ Date \_\_\_\_\_

# LET'S GO FISHING!

It's our first *Cousteau Kids* scavenger hunt. In our version, you need to find facts. See if you can "fish out" all of the facts listed below after you are done reading. They're somewhere in the November/December 2009 issue.

**Directions: Review the list of facts to find before searching this issue of *Cousteau Kids*. Fill in the information and then write down the page number where you found it. Color in a fish for each item you found.**

1. where an axolotl lives \_\_\_\_\_ p. \_\_\_\_\_ 
2. name of crab that holds a sea anemone in each claw \_\_\_\_\_ p. \_\_\_\_\_ 
3. name of an eared seal \_\_\_\_\_ p. \_\_\_\_\_ 
4. a body part that is compared to a wrist \_\_\_\_\_ p. \_\_\_\_\_ 
5. two penguins that live in the Weddell Sea \_\_\_\_\_ p. \_\_\_\_\_ 
6. the Clearwater Marine Aquarium's CEO \_\_\_\_\_ p. \_\_\_\_\_ 
7. a fish that has barbels around its mouth \_\_\_\_\_ p. \_\_\_\_\_ 
8. a barreleye's favorite meal \_\_\_\_\_ p. \_\_\_\_\_ 
9. where marine biologist Dr. Daphne Fautin works \_\_\_\_\_ p. \_\_\_\_\_ 
10. three animals that live with anemone \_\_\_\_\_ p. \_\_\_\_\_ 
11. the scientific word that means "living together" \_\_\_\_\_ p. \_\_\_\_\_ 
12. name used for a whale's skeleton \_\_\_\_\_ p. \_\_\_\_\_ 
13. number of sea anemone species \_\_\_\_\_ p. \_\_\_\_\_ 
14. name of a true seal \_\_\_\_\_ p. \_\_\_\_\_ 
15. location of the Tunnel to Atlantis \_\_\_\_\_ p. \_\_\_\_\_ 

**CK EXTRA!**

The deadline date for the CK cover contest \_\_\_\_\_ p. \_\_\_\_\_

Don't forget to enter!!