

COUSTEAU *kids*

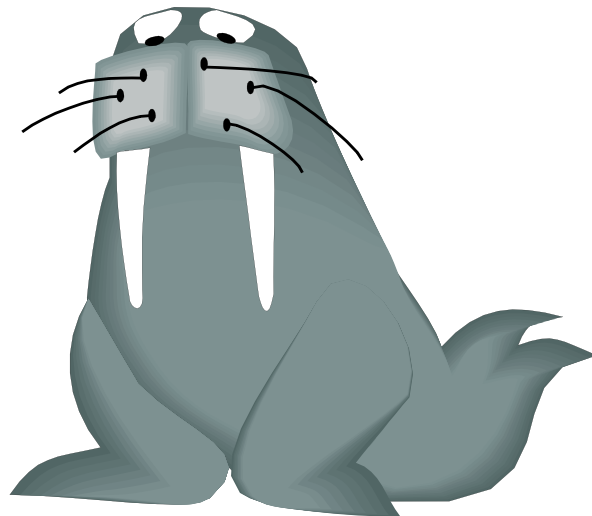
EXPLORING NATURE AND SCIENCE AROUND THE WORLD

January/February 2010 Teacher's Guide



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

- ▶ the walrus
- ▶ venomous and poisonous fishes
- ▶ a venomous fish expert
- ▶ new octocorals, a ghostshark, and sponges
- ▶ seahorses in trouble
- ▶ the lanternfish
- ▶ “robot” fish



TOXIC FISH

Standard 5
Understands the structure and function of cells and organisms
Knows that animals have distinct structures that serve specific functions in growth and survival

Key Words:

toxin: a substance that is very harmful and may even cause death

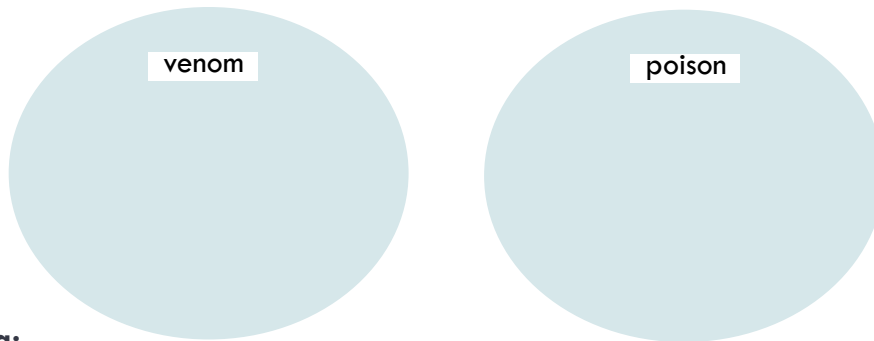
venom: a substance that is delivered from one animal to another

poison: a substance that can kill or hurt

Before reading:

Venoms and poisons contain toxins. Toxins are harmful and even deadly substances. Venom and poison are made from the same proteins in the body but they are used in different ways. Animals with venom inject, or squeeze in, their toxin. Poisonous animals are toxic to eat. Venomous animals actually deliver their venom to a victim, while poisonous animals are just minding their business. To sort out the difference, have students sort the words below into two circles.

fangs, spines, cnidoblast (sea jelly), stomach, meat, fins, skin, teeth, stinger



During reading:

To set a purpose for reading, have students complete these sentences while they read the article.

1. Pufferfish are poisonous because of _____.
2. Soapfish ooze out a poison that tastes _____.
3. A _____ is still venomous once it dies.
4. A _____ is nocturnal.
5. _____ got its name because its eyes point upward

After reading:

Which animals are poisonous or venomous? Ask students to correctly sort all of the animal in the article into the T-chart below. [Answers provided] Be sure students think about which animals deliver their venom and those that happen to be poisonous to eat or touch.

venom	poison
Stonefish	pufferfish
toadfish	soapfish
surgeonfish	
weeverfish	
rabbitfish	
lionfish	
stargazer	
scorpionfish	

Standard 6
 Understands the relationship among organisms and their physical environment
 Knows that when the environment changes, some animals will die

THE WALRUS

Key Words:

Pinnipedia: a group of animals that includes walruses, seals, and sea lions

tusks: extra-long teeth, as on a walrus or elephant

mystacial vibrissae: extra-long whiskers used for finding food

Before reading:

To set anticipation, ask students to list three of an walrus's most important body parts, including tusks, blubber, and whiskers. Tell students that walruses need these parts to help them survive in the Arctic. Ask: What will happen to walruses if too much ice in the Arctic melts?

During reading:

Have students complete these matching activities as they read. Students should find the best match for the words on the left with a word or words on the right.

tusks	digging out food	female walrus	bull
blubber	body armor	stampede	floating chunks of ice
whiskers	fighting, walking, poking	male walrus	cow
skin	spotting food	baby walrus	a large group moving quickly
snout	staying warm	ice floes	making offspring (children)
		pack ice	calf
		breeding	crusty layer of ice

After reading:

A walrus's extra-long canine teeth are called tusks. A male walrus's tusks can grow to 4 feet. A female's tusks usually grow to about 2 feet. Have students collect toilet paper rolls to make their own walrus tusks. First, have students paint the rolls white. Provide rulers for students to measure with and clear tape for them to put the rolls together. Then have students compare the lengths of male and female tusks to their arm length and desk height.

Standard 12
Understands the nature of scientific inquiry
 Knows that learning can come from careful observations and simple experiments

DISCOVERED!

Key Words:

discovered: found or known about for the first time

swaying: moving or leaning in a rhythmic motion, such as back and forth or side to side

bendable: able to be stretched or curved out of a straight line

studded: covered with stars

Before reading:

Review the key words with students. Have them act out the words *swaying* and *bendable*. List things that sway (trees, flowers, people) and things that are bendable (straws, people) Have groups locate the Great Barrier Reef, Sea of Cortez, and Irish Sea on maps.

During reading:

To set a purpose for reading, have students preread the chart below and then organize facts while reading. [Answers provided.]

Animal:	Where discovered:	How scientists found it:
octorals	Great Barrier Reef	by building underwater “dollhouses” to attract sealife
black ghostshark	Sea of Cortez	by using underwater remote-controlled video cameras
sponge	Irish Sea	by braving dangerous currents to collect samples

Write to Cousteau Kids at:

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 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

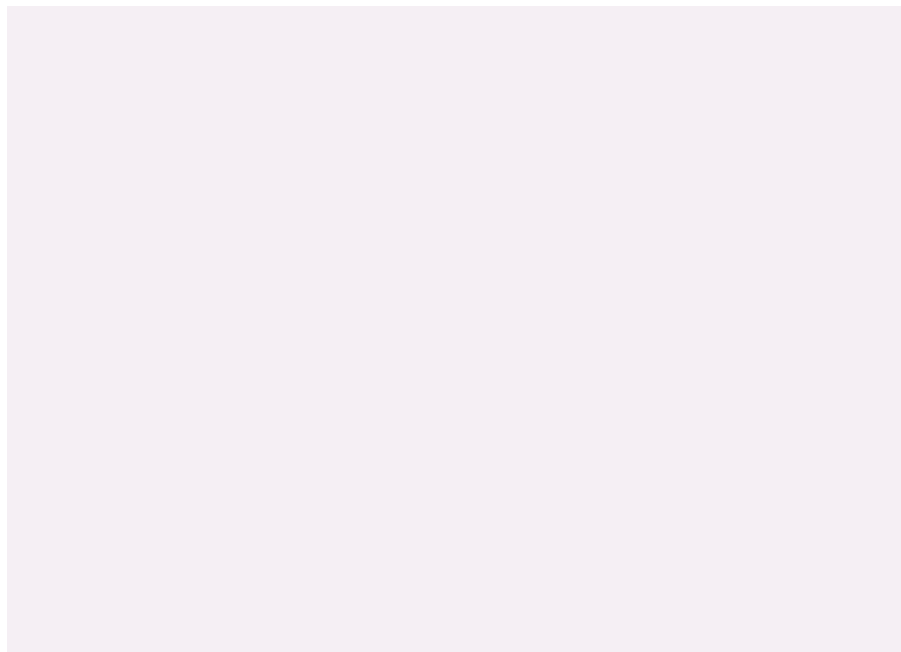
New York State Math, Science & Technology Standards, The University of the State of New York, The State Education Department www.emsc.nysed.gov

Name _____

Date _____

TOXIC FISH

In this issue you read about 10 fish that make their very own venom or poison. Choose one fish from our list to research on the Internet or in books. Then fill in all the missing parts on this page.



Draw a picture of the fish here.

FACT CARD:

Name:

Scientific name;

color:

size:

poison or venom? (circle one)

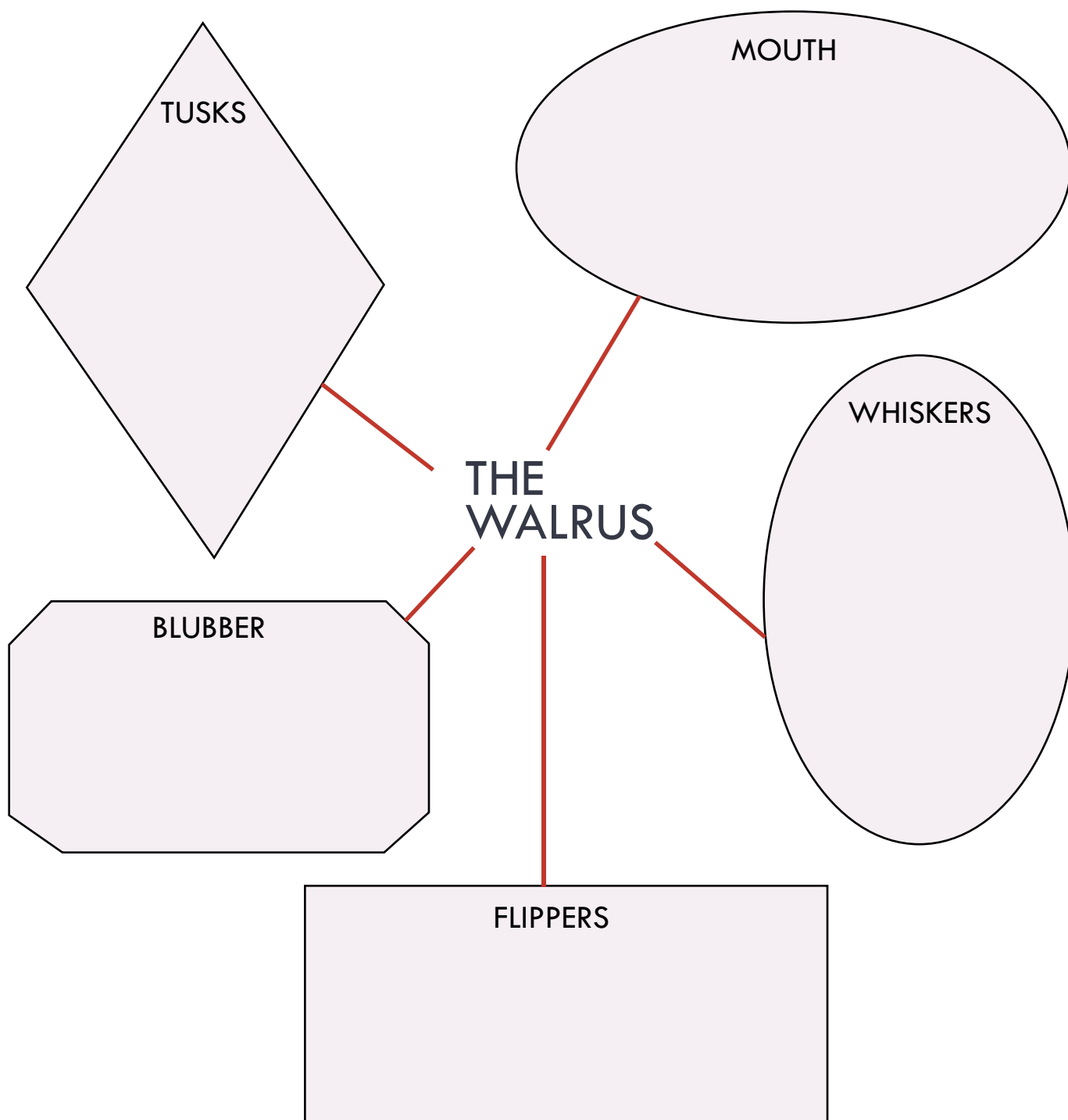
Fun fact: _____

Name _____

Date _____

THE WALRUS

A walrus may have goofy looks, but its body is perfectly built for life in the cold, icy Arctic. Complete this walrus body organizer by filling in one fact about each of the walrus's body parts into the chart below.



Name _____ Date _____

DISCOVERED!

After you read the article on pages 16-17, answer the questions about the new animal discoveries that scientists made. Ask your teacher if you can join forces and form teams of three. Have each team member answer one question for each section. Be sure to use your own words and write in complete sentences.

GREAT BARRIER REEF

1. How did scientists in the Great Barrier Reef catch new animals to study? _____

2. What body parts are octocorals named for? _____

3. How are octocorals different from other corals? _____

SEA OF CORTEZ

4. What equipment did scientists discover the ghostshark with? _____

5. What do chimaeras (ky-MEER-uhz) have in common with sharks and rays? _____

6. The scientists trying to spot the new chimaera were persistent. What does that word mean?

IRISH SEA

7. What happens to a sponge when it dies? _____
8. Why were the “sponge nerd” scientists called brave? _____

9. Why did the author call one of the new sponge discoveries a “superstar”? _____

CK EXTRA!

Octocorals aren't the only sea creatures named for eight body parts! Unscramble the word below and learn the name of animal with eight arms.

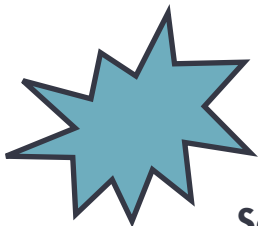
socpotu

Name _____ Date _____

SAVING SEAHORSES

After you read the “e-FILES” article on page 18, write in your own words why seahorses are in trouble. Then help these special fish by signing the seahorse pledge at the bottom of the page.

Seahorses are in trouble because _____



Seahorses belong in the sea! I promise to NEVER buy things made from seahorses, like key chains, jewelry, and other souvenirs. I will also spread the word about this pledge to my family and friends.

Signed: _____

Date: _____