

Something Fishy

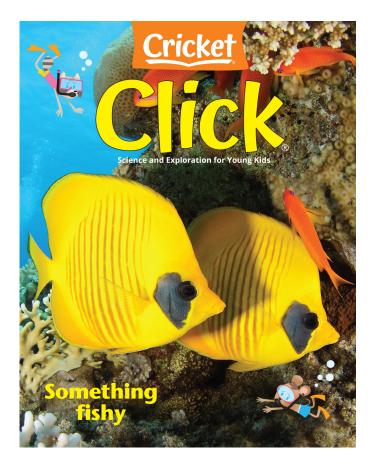
You will be swimming in a sea of fascinating fish facts with this month's issue of CLICK magazine. Students will learn about a fish's anatomy and the variety of fish that fill our rivers. In addition, young readers will study the innate defense mechanisms that help fish survive in the dangerous seas.

CONVERSATION QUESTION

Why are fish such fantastic creatures?

TEACHING OBJECTIVES

- Students will learn about the physical characteristics of fish.
- Students will learn about the variety of fish that live in rivers.
- Students will learn about the mechanisms that fish use to avoid predators.
- Students will examine the structure and function of a fish's body parts.
- Students will construct explanations using information from the text.
- Students will use a science-based text to make observations about the natural world.
- Students will study the quantifying mathematical term: pair
- Students will use a related children's book to learn how sharing builds character.
- Students will create posters promoting water safety.



In addition to supplemental materials focused on core STEAM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

- My Fishy Parts
 Expository Nonfiction, ~900L
- Down by the River
 Expository Nonfiction, ~700L
- Safe in the Sea
 Expository Nonfiction, ~700L

My Fishy Parts

pp. 8-9, Expository Nonfiction

"Just keep swimming, just keep swimming...." Dive into this article to learn about the external anatomy of a fish—from its mouth to its tail.



RESOURCES

Swimming Lessons

OBJECTIVES

- Students will learn about the physical characteristics of fish.
- Students will examine the structure and function of a fish's body parts.
- Students will study the quantifying mathematical term: pair

KFY VOCABULARY

- rounded tail (p. 8) a tail with a curved surface that makes a fish swim slowly and turn quickly
- forked tail (p. 8) a tail with two branches that helps a fish to swim all day long without stopping
- c-shaped tail (p.8) a tail shaped like the letter c that helps a fish to swim very fast

ENGAGE

Conversation Question: Why are fish such fantastic creatures?

Ask the students the question that is posed on page 9 of the article: What makes a fish a fish? Facilitate a brainstorming session and list responses on the board. After reading the article, revisit the list and help students use the criteria mentioned in the article to create a more streamlined definition of a fish.

INTRODUCE VOCABULARY

Guide students to notice that all three of the vocabulary terms refer to the shape of a fish's tail. Explain that the shape of a fish's tail determines the fish's swim patterns and speed capabilities. After reviewing the definitions, have students move their hands through the air to demonstrate how each tail would make the fish swim. (rounded: slowly with quick turns; forked: slow and steady; c-shaped: very fast)

READ & DISCUSS

Post and discuss questions prior to reading. Read the article aloud, pausing when answers to the questions are revealed.

- 1. Why are whales and dolphins NOT fish?
- 2. How are your eyes different from a fish's eyes?
- 3. Why is it important for fish to have a powerful sense of smell?
- 4. What is the purpose of a fish's bottom fin?
- 5. How can you tell what a fish eats by examining its mouth?

SKILL FOCUS: Structure and Function

INSTRUCT: Elicit from students that the main idea of the article is to provide a detailed description of the physical attributes of fish. Present the *Swimming Lessons* graphic organizer and tell students that they will be using information from the article to draw and write about the special function performed by different parts of a fish's body.

ASSESS: Circulate and have mini-conversations with students as they are working. Remedial readers may work with a partner to reread the text. Collect and review their work to further assess understanding.

EXTEND

Mathematics Display the article and point out the fish's side fins as you reminds students that a fish's side fins come in pairs" "My side fins come in pairs." Remind students that a pair is a set of two things that go together and are alike, like a pair of shoes. Have students work in "pairs" identify the parts of their bodies that come in pairs.

My Fishy Parts

Swimming Lessons

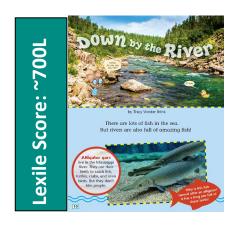
Structure and Function: Use information from "My Fishy Parts" to tell how a fish uses its body parts.

Fish Body Part	Draw	Write
	(What does the part look like?)	(What does the part do?)
scales		
gills		
dorsal fin		
tail		

Down by the River

pp. 10-14, Expository Nonfiction

This article introduces young readers to the amazing fish that inhabit Earth's rivers. Bright photographs and engaging text provide clear and interesting information.



RESOURCES

What's in a Name?

OBJECTIVES

- Students will learn about the variety of fish that live in rivers.
- Students will construct explanations using information from the text.
- Students will use a related children's book to learn how sharing builds character.

KEY VOCABULARY

- sea (p. 10) the salt water that covers most of the Earth's surface
- river (p.10) a natural stream of flowing water

ENGAGE

Conversation Question: Why are fish such fantastic creatures?

As a motivational activity for the articles in this guide, arrange students in small groups and give them free time to play "Go Fish". Then ask the class to share any real-life connections to fish. Answers might include an actual fishing expedition, a trip to an aquarium, or experiences with a fish tank or pond.

INTRODUCE VOCABULARY

Post and discuss the vocabulary words and definitions. Focus on the differences and similarities between a river and a sea. Distribute drawing paper and give students ten minutes to draw a scene that illustrates a river leading to a sea. To activate prior knowledge, challenge students to add animals and fish to the scene.

READ & DISCUSS

As a post-reading activity, lead a discussion based on the following questions.

- 1. How does a sturgeon eat without teeth?
- 2. What is special about where bull sharks can live?
- 3. How does the paddlefish catch tiny creatures to eat?
- 4. Why do sockeye salmon turn bright red?
- 5. What is unique about how an arapaima breathes?

SKILL FOCUS: Constructing Explanations

INSTRUCT: Advise students to review the article and to study the explanations for a given fish's particular name. Distribute the *What's in a Name?* graphic organizer and tell students they will use information directly from the text to complete the organizer. Dependent on the abilities of your students, the explanations can be constructed using words or drawings.

ASSESS: Explain that an animal's name may give clues about its appearance. Challenge them to think of animals with telling names. (Ex: **black** panther, **ringtailed** lemur, **rattle**snake)

EXTEND

Character Education Seize the opportunity to read aloud the beloved children's book *The Rainbow Fish*, by Marcus Pfister. This colorful story brings young readers on an underwater journey that follows the Rainbow Fish as he learns that sharing brings happiness. Invite students to tell about a time when sharing made them feel good inside. They also may want to share a time when they were the recipient of someone else's generosity. Provide examples from your own life so that students understand that there are no age restrictions on the power of kindness.

What's in a Name?

Constructing Explanations: Gather information from "Down by the River." Use words or pictures to explain each the fish got its name.

Fish	Explanation	
Alligator gars		
Rainbow trout		
Electric Eel		
Bull Shark		

Discuss with a Classmate: How did the **bold** word give you a clue about the fish's appearance?

Safe in the Sea

pp. 10-14, Expository Nonfiction

This article teaches young students how vulnerable sea life stays safe from predators. Be prepared to "get schooled!"



RESOURCES

Save Yourself!

OBJECTIVES

- Students will learn about the mechanisms that fish use to avoid predators.
- Students will use a science-based text to make observations about the natural world.
- Students will create posters promoting water safety.

KEY VOCABULARY

- camouflage (p.22) a way of hiding things by making them look like part of their surroundings
- dart (p. 26) to move quickly and suddenly

ENGAGE

Conversation Question: Why are fish such fantastic creatures?

Review the concept of *camouflage* using this simple art project. Give each student a piece of paper and instruct them to cover the entire paper with a simple pattern such as stripes or spots. Then give them a white cut-out of a fish and have them glue it onto their patterned paper. Instruct the students continue the pattern on to the fish so it blends in. Hang finished creations across the room and guide students to stand back and notice how the fish blend into the surrounding pattern and seem to disappear.

INTRODUCE VOCABULARY

Post and discuss the vocabulary words and definitions. Discuss how these are essentially opposite mechanisms that fish use to stay safe. Why might a particular fish be more successful *darting* away than using *camouflage*?

READ & DISCUSS

Have students study the photographs and listen as you read the text and captions aloud. Reinforce comprehension by posing these questions as a post-reading activity.

- 1. How do some fish use colors or patterns to blend in?
- 2. Why is it helpful for some fish to have spines?
- 3. What are the advantages of small fish staying in large groups?
- 4. How can speed help a fish survive?
- 5. How does a Goby fish stay safe? What land animals also use this technique?

SKILL FOCUS: Making Observations

INSTRUCT: Review with students that fish have natural instincts to protect themselves, much like humans. Distribute the *Save Yourself!* graphic organizer and tell the class that they will use information directly from the text and photographs to complete the organizer.

ASSESS: Collect the *Save Yourself!* worksheet to further evaluate the students' ability to use observational information to record how fish stay safe from danger.

EXTEND

Health and Safety Use this article as an opportunity to discuss water safety. Brainstorm with the class to elicit the many ways that we can keep ourselves safe while enjoying the water. Divide the students into small groups and assign each group a different facet of water safety to illustrate. Display these posters throughout the school.

Safe in the Sea

Save Yourself!

Making Observations How do different fish stay safe in the sea? Refer to "Safe at Sea." Then use the color key to color each box correctly.

Color Key

blue: swimming in schools	red: sharp spines
green: camouflage	yellow: speed

lionfish	damselfish
glassfish	leafy sea dragon
flying fish	porcupine fish
carpet sole	yellowtail snapper