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### Let's Learn More Backpack—Grade 3

#### This sample includes the following:

#### Let's Learn More Activity Book

- What Should Third Graders Know? (2 pages)
- Guiding Questions (1 page)
- Reading (4 pages)
- Spelling (1 page)
- Writing (2 pages)
  Mathematics (1 page)
- Problem Solving (1 page)
- Social Studies (1 page)
- Science (1 page)
- Game (1 page)
- Mindfulness (1 page)
- Technology (1 page)
- Hands-on Activities (1 page)
- Project-Based Learning (1 page)

#### Reader Sample (31 pages)

Additional backpack resources not included in this sample:

- Parent Tip Card
- Ebook Library Access Card



#### What Should Third Graders Know?

What key literacy and mathematics concepts are covered in the Let's Learn! series?

#### Literacy

- ▶ **Read** and **answer questions** about texts.
- Determine the **main ideas** of texts.
- ▶ Recount and examine the **central messages** of stories.
- Describe **characters** in stories.
- Write **informative**, **opinion**, and **narrative** paragraphs.
- ▶ Practice reading and writing **spelling words**.
- Determine the **meanings** of **words** and **phrases**.
- ▶ Use correct **punctuation** and **capitalization**.
- ▶ Identify and use **parts of speech** correctly.
- Form and use **possessives**.
- Correctly use verb tenses and irregular plural nouns.
- ▶ Demonstrate understanding of **figurative language**.



#### ¿Qué deberían saber los estudiantes de tercer grado?

¿Qué conceptos importantes de lectoescritura y matemáticas abarca la serie ¡Aprendamos!?

#### Lectoescritura

- ▶ Leer y responder preguntas sobre textos.
- Determinar las **ideas principales** de los textos.
- ▶ Relatar y analizar los **mensajes centrales** de las historias.
- Describir los **personajes** de las historias.
- Escribir párrafos **informativos**, de **opinión** y **narrativos**.
- ▶ Practicar la lectura y la escritura de **palabras difíciles** de **deletrear**.
- ▶ Determinar los **significados** de las **palabras** y las **frases**.
- Usar correctamente la **puntuación** y las **mayúsculas**.
- ▶ Identificar y usar correctamente las **categorías gramaticales**.
- ▶ Practicar destrezas fundamentales.
- ▶ Usar correctamente los **tiempos verbales** y los **sustantivos plurales**.
- Demostrar comprensión del uso de **lenguaje figurado**.

#### **Mathematics**

- ▶ Multiply, add, subtract, and round within 100.
- ▶ Identify **products** as **equal groups**.
- ▶ Tell **time** to the nearest **minute**.
- Identify attributes of shapes.
- Add and subtract amounts of **money**.
- ▶ Solve two- and three-step **word problems**.
- Calculate **volume** and **area**.
- Estimate and compare mass and liquid volumes.
- Create and interpret **charts** and **bar graphs**.
- Understand and represent simple fractions.
- **Estimate** and **measure lengths** of objects.
- ▶ Calculate **perimeters** of objects.





#### Matemáticas

- ▶ Multiplicar, sumar, restar y redondear hasta 100.
- ldentificar la multiplicación como una operación entre grupos iguales.
- Decir la **hora** al **minuto** más cercano.
- Identificar los atributos de las figuras.
- Sumar y restar montos de dinero.
- ▶ Resolver **problemas verbales** de dos y tres pasos.
- ▶ Calcular **volumen** y **área**.
- ▶ Calcular y comparar la **masa** y el **volumen** de un **líquido**.
- ▶ Crear e interpretar **tablas** y **gráficos de barras**.
- Comprender y representar **fracciones sencillas**.
- ▶ Calcular y medir las longitudes de los objetos.
- Calcular el **perímetro** de los objetos.



# **Guiding Questions**

Unit 1: Sharks
What can we learn
from sharks?

Unit 2: Healthy Choices
Why is my health
important?

Unit 3: Sun, Moon, and Stars
How do the sun, moon, and stars
appear to move and change?

Unit 4: Inventions
How have inventions
changed our lives?

Unit 5: Reduce, Reuse, Recycle Why should we take care of Earth?

Unit 6: Citizenship How can we be good citizens?

## Preguntas orientadoras

Unidad 1: Tiburones ¿Qué podemos aprender de los tiburones?

Unidad 2: Elecciones saludables ¿Por qué es importante mi salud?

Unidad 3: El sol, la luna y las estrellas ¿De qué manera el sol, la luna y las estrellas parecen moverse y cambiar? Unidad 4: Inventos ¿Cómo han cambiado nuestra vida los inventos?

> Unidad 5: Reducir, reutilizar, reciclar ¿Por qué deberíamos cuidar la Tierra?

Unidad 6: Ciudadanía ¿Cómo podemos ser buenos ciudadanos?

# Reading

### **Amazing Animals: Sharks**

by Saskia Lacey

When you hear the word *shark*, what comes to mind? Do you imagine lots of scary, sharp teeth? If you do, you are not alone. Many people are scared of sharks. There are more than 400 different species, or types, of sharks. Not all sharks are dangerous. Most sharks do not bother people. When you get to know sharks, one thing is certain—they are all **unique**.

#### From Teeth to Tail

With so many species of sharks, there is a lot of variety in what they look like. But many sharks share the same **anatomy**. All sharks are fish. This means that they use gills to breathe and fins to swim. Caudal fins, or tail fins, give sharks strength. As sharks move from side to side, their fins push them through the water.

Most sharks have pointed fins and **snouts**. Blue sharks and great white sharks have this shape. It helps them cut through water and swim quickly. Some of these sharks can swim more than 40 miles (64 kilometers) per hour when they chase **prey**.

Other species, such as the whale shark and the angel shark, have flat, round snouts. Sharks use this type of snout to bury themselves in the sand. Then, they hide as they wait for prey to swim by.



### **Amazing Animals: Sharks (cont.)**

Sharks are known for their grins. Unlike humans, sharks have rows and rows of teeth. When a shark loses a tooth, a tooth from another row moves forward to replace it.

Some sharks have very sharp teeth that help them tear apart food. Others have flat teeth that help them crush shells to eat what is inside. Sharks have the teeth they need to hunt prey that live in their **habitats**.



#### **Save the Sharks!**

126244-Let's Learn More!

Humans hunt sharks for food and sport. This is not good for sea life. Sharks help keep the food chain in balance. People need to work together to keep sharks safe. Keeping the oceans clean can keep sharks safe. Not buying products with shark in them, such as food and clothing made from sharks' meat and skin, can help too.

Sharks come in all shapes and sizes. Some sharks are dangerous, and some are harmless. But each is a unique creature that needs to be protected.



**Directions:** Read the paragraph. Then, answer the prompts.

Some sharks have very sharp teeth that help them tear apart food. Others have flat teeth that help them crush shells to eat what is inside. Sharks have the teeth they need to hunt prey that live in their habitats.

- 1 Write one or two words describing what the paragraph is about.
- 2 Write one sentence describing what the paragraph is about.

3 Draw a picture showing what the paragraph is about.

Name Date	
-----------	--

**Directions:** Questions are strong ways to introduce topics in a paragraph. Read the paragraph, and choose the best question to begin it. Then, write your own question to begin the second paragraph.

- 1 Which of the following is the best question to begin the paragraph?
  - A How big are sharks?
  - What color are sharks?
  - Where do sharks live?

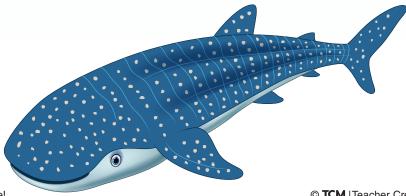
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Many sharks are gray, but the goblin shark is pink. Chain catsharks have patterns on their brown-and-yellow skin that allow them to blend in with sand. Sharks are many different colors.

2 Write a question to introduce this paragraph.

\_\_\_\_\_

Some sharks bury themselves in sand and wait for their prey to swim by. Other sharks are very fast swimmers and chase down their prey. Whale sharks swim with their mouths open and trap their prey. Sharks are skilled at hunting prey.

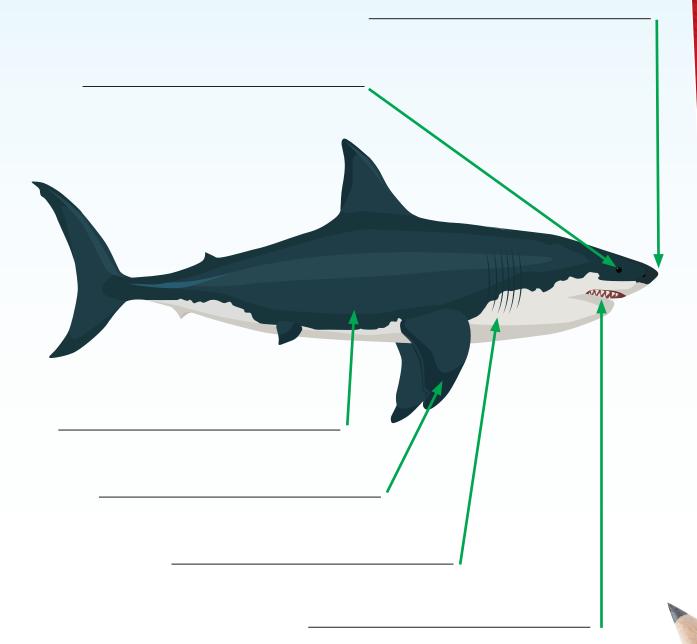


Nar	me	Date
Di	rections: Write	each word. Then, write each word backward.
0	aunt	
2	brother	
3	daughter	
4	father	
5		
6	grandmother	
7	mother	
8	sister	
9	son	
10	uncle	

Directions: Label the picture of the shark with the phrases from the Fact Bank.

**Fact Bank** 

- skinny gills
- beady eye
- rough skin
- sharp teeth • small fin
  - pointy snout



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Name	Date
<b>Directions:</b> Write an informative/ex sharks. Include facts about what the Use your notes and the facts from particles.	ney eat and what they look like.
	Edit and Revise!
	Be sure that you check your writing for:
	a topic sentence
	<ul> <li>details to support the main idea</li> </ul>
	a concluding sentence
	_

1 If each bottle holds 2 liters, what is the total capacity of all the bottles?



5 Rocks were used to measure the mass of each object.
Circle the object with the greatest mass.



2 How many full pitchers will it take to fill the bucket?



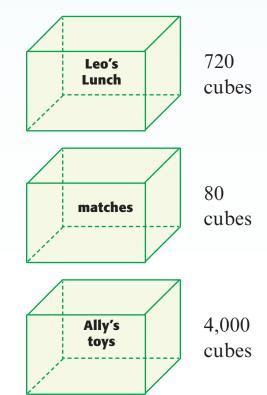
6 Is the mass of a nail more or less than 1 kilogram?

3 How many cups are there in a quart?

4 What is the total capacity of

7 Cubes were used to measure the volume of each box.
Circle the container with the greatest volume.





Problem Solving

**Directions:** Read and solve the problem.

Julie wants to buy a new bike. The bike costs \$225. She gets an allowance of \$10 a week and has been saving for 7 weeks. She also earned \$112 for babysitting. How much more money does Julie need to buy the bike?

1 Begin by calculating how much money Julie has earned so far. Write equations to show the answer.

**2** Solve the problem. Justify your answer.

28

#### Country: \_

Weather	Neighboring Countries
Food	Celebrations

- 1 What did you find most interesting about this country? Why?
- 2 How is life in this country similar to and different from where you live?

Science Vs

**Directions:** Follow the steps in this experiment to discover how acidic water is in your local environment. Then, complete the sentence.

#### What You Need

- bucket
- rainwater
- vinegar

- 3 plastic jars
- tap water
- litmus paper

#### What to Do

- 1 On a stormy day, place the bucket outside in an open area. Let the bucket collect enough water to fill a jar partway. If rain is not likely for a while, collect water from a local lake, river, or ocean to test instead.
- 2 Fill one jar with tap water, one with rainwater, and the other with vinegar. Label each jar with the type of liquid used.
- 3 Place a separate piece of litmus paper in each jar. Use the chart to record what happens to the litmus paper. Note: The lower the number, the more acidic the liquid.

Tap Water	Rainwater	Vinegar

The most acidic liquid was







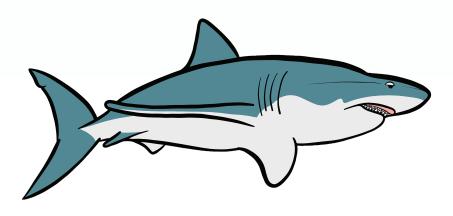
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**Directions:** Work with a partner. Use small objects to mark your spots on the game board. Take turns rolling a number cube. Move the number of spaces that you roll. Multiply the numbers in the space you land on. The first person to reach the finish line wins.

Start		
10 × 7	6 × 8 8 × 9	5
2 × 3	7 × 7	9 × 10
4 × 5	3 × 4	4 × 8
6 × 6	8 × 6	6 × 9
7 × 2	5 × 9	3 × 3
6 × 4	5 × 5	9 × 7
9 ×	1 × 7	2 × 1
9 %	10 × 4	8 × 8

**Directions:** Some people are afraid of sharks. Some people are fascinated by them. Describe how you feel when you are afraid and when you are fascinated. Tell what you can do when you feel afraid.

Afraid	Fascinated
I feel	I feel
What can you do w	when you are afraid?
1	
2	
3	



Name	Date	

**Directions:** Go to the *National Geographic Kids* website to learn about sharks.

#### Great White Shark

#### tempub.digital/LLM/3/unit1

- 1 Look at the slideshow. Read the article. Watch the video at the bottom of the webpage.
- 2 Write four facts you learned about sharks.
- 3 Create an online bulletin board about sharks. Use Padlet or a similar online collaborative space.
- 4 Add your facts to your online bulletin board.
- 5 Add pictures and links to information about sharks.
- 6 Invite a friend to collaborate with you. Ask them to look at your information and add to it.



**Directions:** Focus on your well-being with these hands-on activities. Choose at least two to complete.

### **Staying Healthy**

Sharks may not need to worry about taking care of all their teeth, but humans sure do! Take your time with your dental routine tonight. Carefully floss and brush thoroughly.

# **Amazing Art**

Cut out an outline of a shark's body.
Tear or cut up small pieces of gray, blue, and white paper.
Glue the scraps to the shark to create a mosaic.

### **Making Music**

From catchy children's songs to famous soundtracks from movies, sharks have a place in music. Listen to a few examples, and describe how the different pieces of music make you feel.

### **Getting Active**

Make a game of feeding sharks! Use or make a beanbag toss game, and decorate it to look like a shark head with a toothy grin. Toss beanbags, small balls, or other objects into the hole to feed the shark.

# Create a Wellness Program Overview

Guiding Question: Why is my health important?

**Directions:** You are going to create a wellness program for you, your family, and your friends.

- 1 As you work on this project, think about these questions:
  - What is important for physical wellness?
  - What is important for nutritional wellness?
  - What is important for mental wellness?
  - Why are friends and family important to wellness?
  - What should people avoid so they can stay well?
  - Which invention can help make a new snack?
  - How does a wellness plan promote good citizenship?
  - How might exercise routines change as the seasons change?
- 2 Complete the activities on pages 176–180.
- 3 Follow the directions on page 181 to help you create an infomercial to explain your plan.
- 4 Share your plan with your family and friends.
- 5 Follow through with your plan.







**John Lockyer** 

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#### **Fast Swimmer**

This make shark swims so fast, it can jump right out of the water. It reaches speeds of 19 miles per hour (30 km/h) and can leap nearly 20 feet (6 m) in the air.

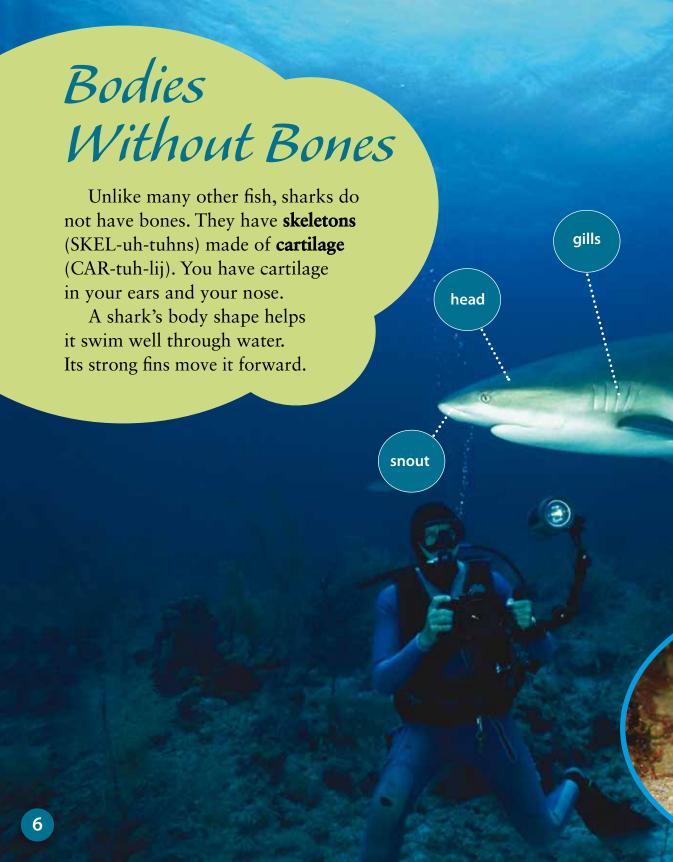
# LET'S EXPLORE MATH

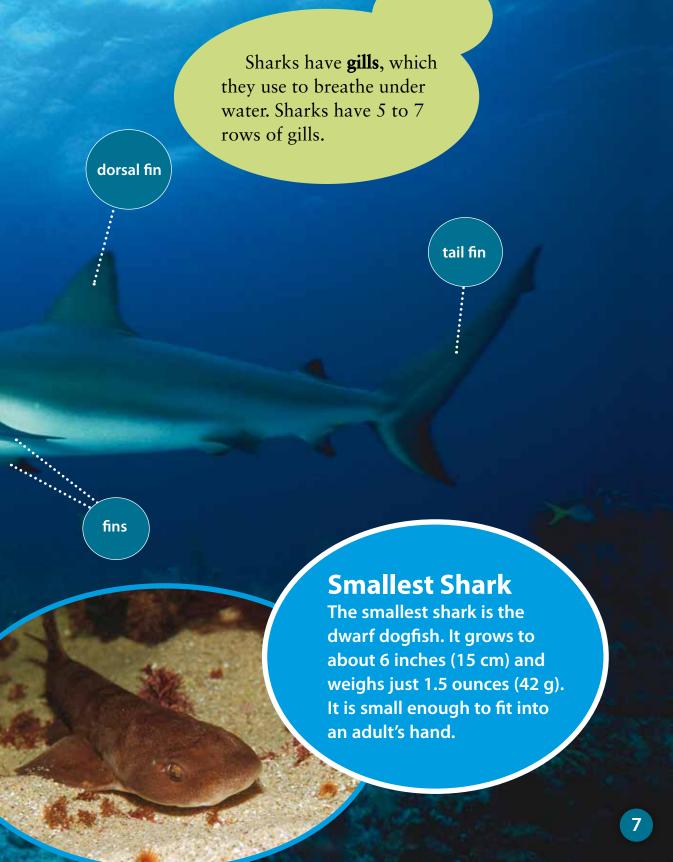
Inches and feet are **units** of measurement. They measure length. The make shark can leap up to 20 feet in the air.

**a.** About how many inches is this? *Hint*: 12 inches = 1 foot

The make shark can swim at a speed of 19 miles per hour.

**b.** If the shark swam a distance of 76 miles, how many hours was it swimming?





# Ancient Sharks

Different sharks have lived in the ocean for almost 400 million years. The megalodon (MEG-uh-luh-don) shark lived 1.6 to 16 million years ago.

megalodon shark

A megalodon shark tooth

The megalodon measured up to 50 feet (15 m) in length. Its jaws were 6.5 feet (2 m) wide. Its teeth were up to 8 inches (20 cm) long. It weighed around 20 tons (18,144 kg), which is as much as 5 elephants.

A megalodon shark was around 3 times the length of a great white shark.

great white shark

# LET'S EXPLORE MATH

A ton is used to measure large amounts of weight. A megalodon could weigh as much as 5 elephants, or a total of 20 tons.

a. About how much does each elephant weigh?

Megalodon teeth were up to 20 centimeters in length. Great white shark teeth are around 5 centimeters in length.

**b.** How many times bigger is the megalodon tooth?



Today, more than half of all shark species are less than 3 feet (1 m) long. But some species grow much larger and have unusual features.

The hammerhead shark has eyes on the ends of its head. It swings its head from side to side to see. Its head can grow up to half as long as its body.

The hammerhead shark measures around 12 feet (up to 4 m) in length. Yet it can be found swimming in water less than 3 feet (1 m) deep.

Thresher sharks use their tails to slap and slash other fish. This makes their **prey** easier to catch and eat. Their tails can grow as long as their bodies.

A thresher shark can grow up to 15 feet (5 m) long.

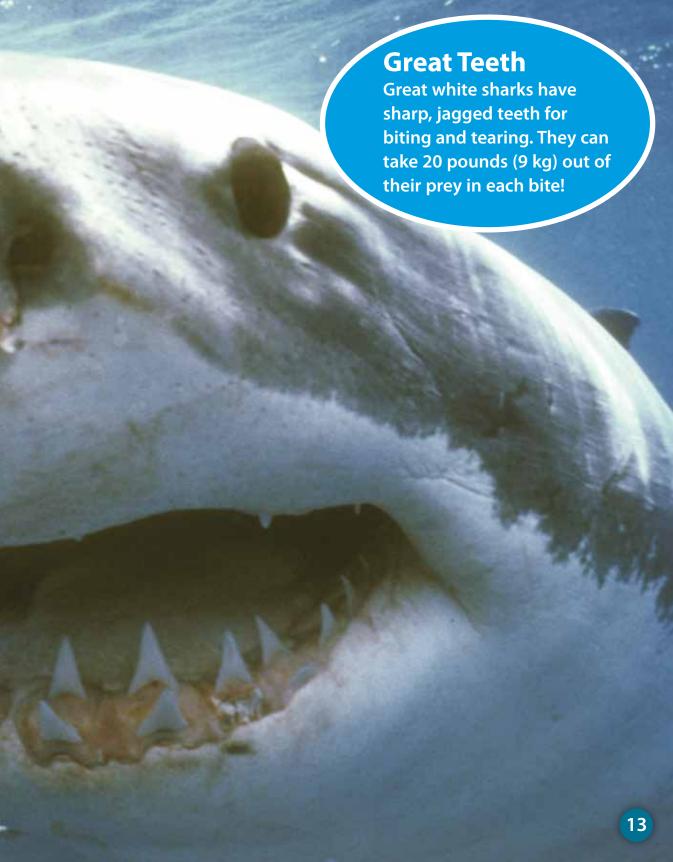
# Teeth

Sharks often lose their teeth when they are catching their prey. So they are always growing new teeth. Sharks can have up to 3,000 teeth at a time. Shark teeth often grow in rows of 5. A shark can go through 30,000 teeth in a lifetime!

# LET'S EXPLORE MATH

Pounds (lbs.) and ounces (oz.) are used to measure amounts of weight. Hint: 1 pound = 16 ounces

- **a.** A great white shark can eat 20 pounds in 1 mouthful. How many ounces is that?
- **b.** How many ounces are there in  $\frac{1}{2}$  a pound?

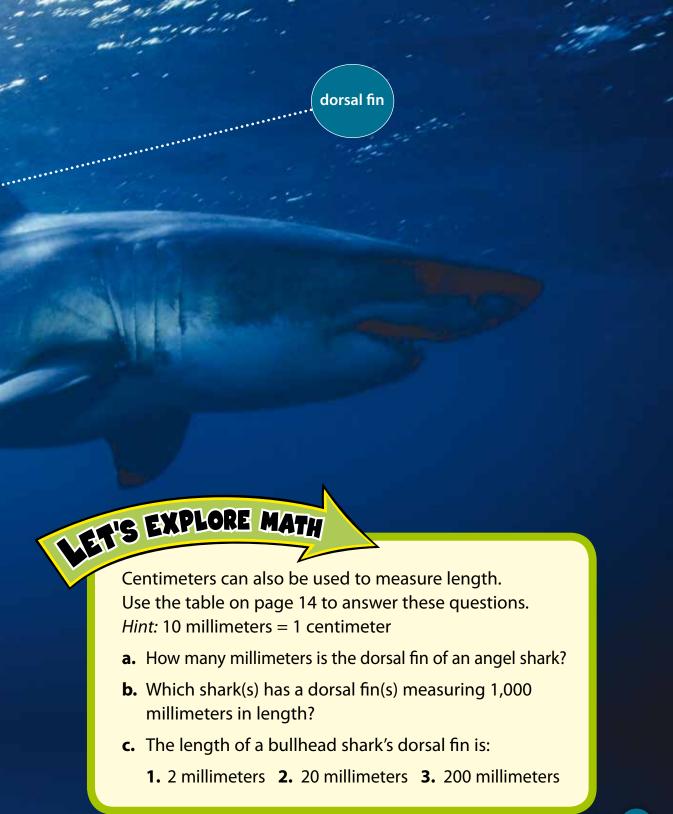


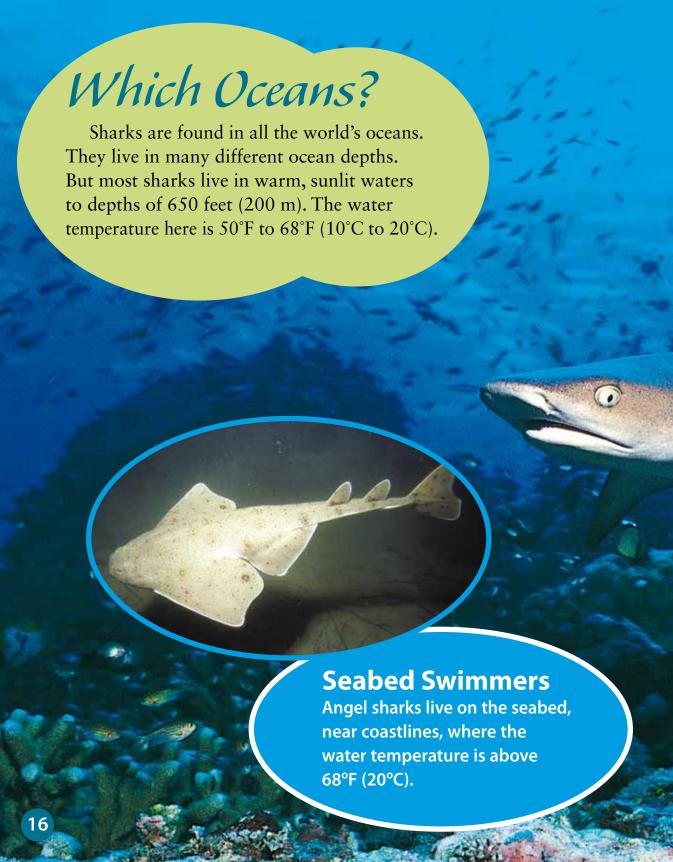
# Dorsal Fins

The fin on top of a shark's back is called the dorsal fin. It is this fin that can often be seen above the water. Dorsal fins are stiff. A shark's fins help it stay upright in the water. All sharks have 1 or 2 dorsal fins.

#### **Dorsal Fins**

Shark	Height of Dorsal Fin
dwarf dogfish	2.5 cm
cookie-cutter shark	3.75 cm
angel shark	10 cm
bullhead shark	20 cm
thresher shark	33 cm
<b>Greenland shark</b>	50 cm
basking shark	100 cm
great white shark	100 cm
whale shark	228 cm

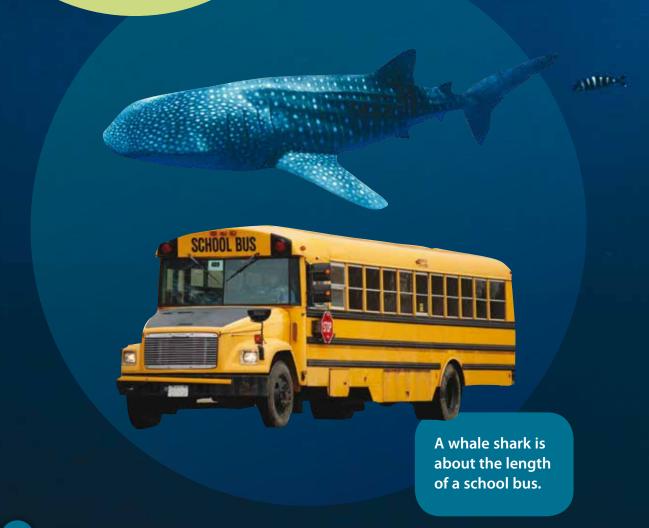






### Whale Sharks

The whale shark is the biggest fish in the world. It grows more than 40 feet (12 m) long and can weigh up to 13 tons (11,793 kg). Whale sharks are slow swimmers. They have a top speed of 3 miles per hour (5 km/h).



### **Big Mouth!**

Whale sharks swim with their mouths open. They suck in water that is filled with plankton (PLANK-tuhn) and small fish. Whale sharks' mouths can be 5 feet (1.5 m) wide. They can suck in over 1,500 gallons (6,000 L) of water an hour.

## LET'S EXPLORE MATH

Liters and milliliters are used to measure amounts of liquid. A whale shark can suck in 6,000 liters of water in an hour.

*Hint:* 1 liter = 1,000 milliliters

- **a.** How many milliliters are there in 6 liters?
- **b.** How many milliliters are there in 1 ½ liters?

### Great White Sharks

Great white sharks are one of the most famous species of shark. Movies have even been made about them! Most great white sharks grow to between 12 and 20 feet (about 3.5 to 6 m) long. That's about as long as a van.



### **Fast Movers**

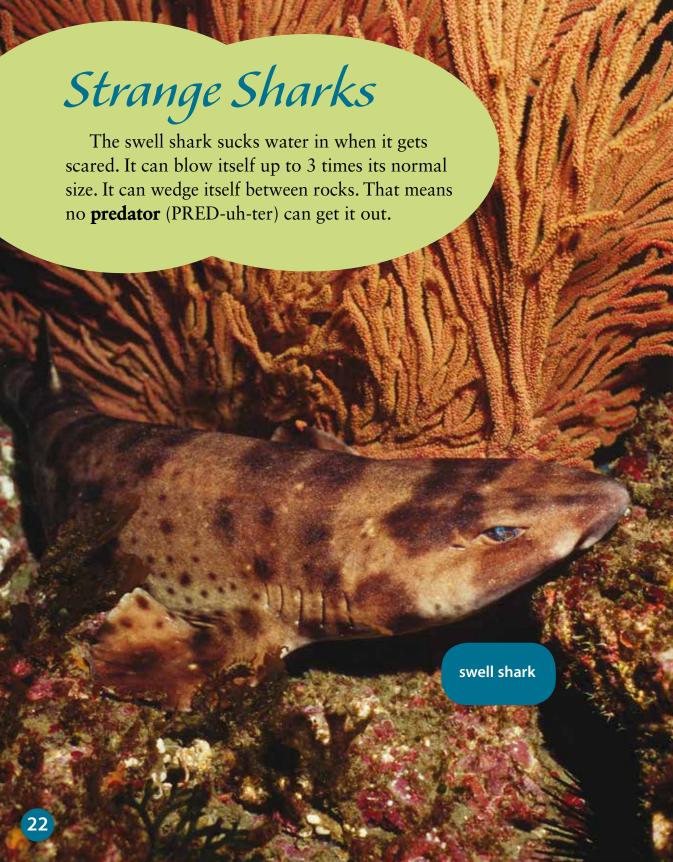
Great white sharks are amazing hunters. They can reach speeds of 25 miles per hour (40 km/h) and can leap out of the water to catch their prey.

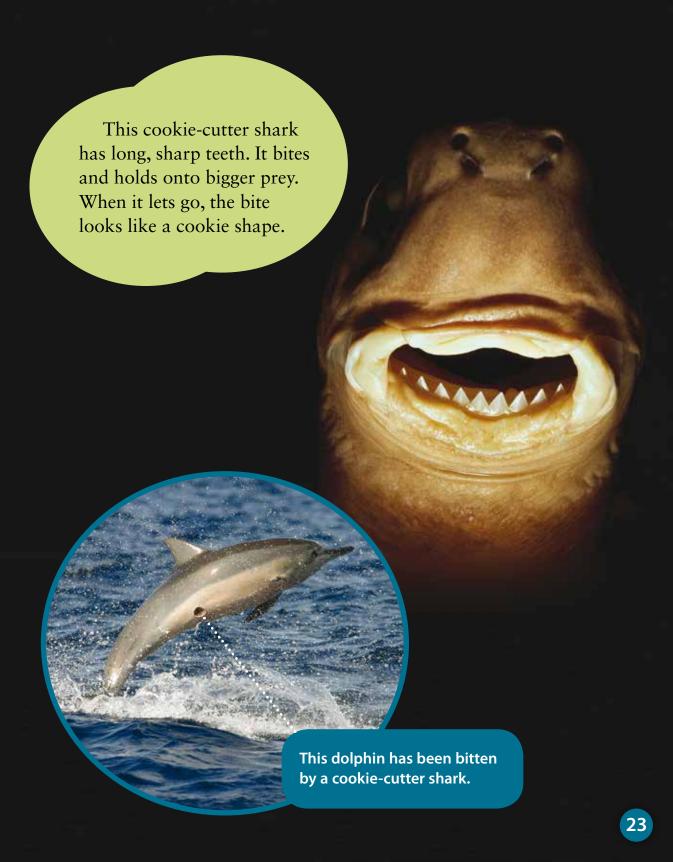
# LET'S EXPLORE MATH

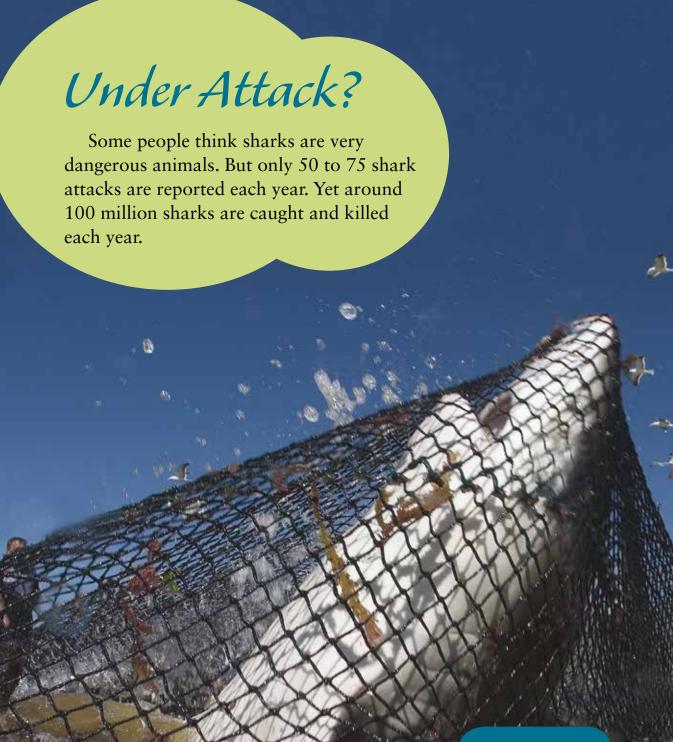
Which of these units of measurement do you think best describes the weight of a great white shark? Write at least 2 sentences explaining your answer.

**a.** 20 kilograms **c.** 2 tons

**b.** 2 pounds **d.** 20 pounds







A shark caught in a fishing net

Sharks are killed for their meat.

Parts of sharks are also used in clothes and lotions. Many sharks are trapped in fishing nets and die.

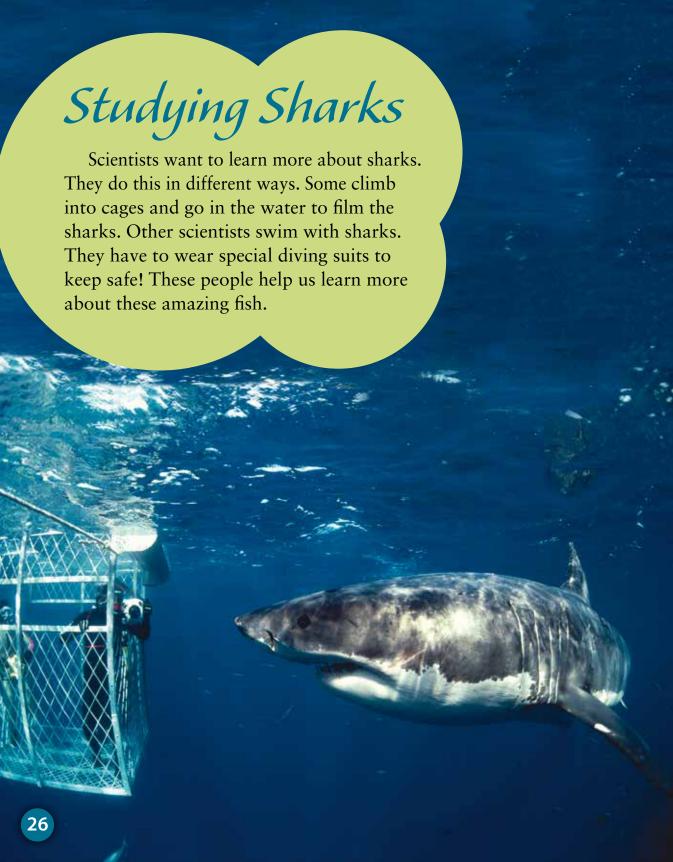
Scientists are worried that sharks are being killed before they have babies.

This means there will be fewer sharks in the future.

### **Shark Babies**

Shark babies are called pups.
A great white shark pup is about 4 feet (1.2 m) long when it is born and weighs around 40 pounds (18 kg). That is about the same size you were when you were 5 years old!

shark pup



### **Shark Measurements**

Shark	Average length	Average weight
dwarf dogfish	6 inches (15 cm)	1.5 ounces (43 g)
cookie-cutter shark	20 inches (50 cm)	5.5 ounces (156 g)
bullhead shark	40 inches (1 m)	20 pounds (9 kg)
angel shark	5 feet (1.5 m)	66 pounds (30 kg)
thresher shark	15 feet (4.5 m)	350 pounds (159 kg)
Greenland shark	20 feet (6 m)	2,200 pounds (998 kg)
great white shark	20 feet (6 m)	7,000 pounds (3,200 kg)
basking shark	33 feet (10 m)	15,400 pounds (6,985 kg)
whale shark	40 feet (12 m)	28,700 pounds (13,018 kg)

## LET'S EXPLORE MATH

Use the table above to answer these questions.

- **a.** Which shark measures exactly 5 yards in length? Hint: 1 yard = 3 feet.
- **b.** Which shark is exactly twice the length of the cookie-cutter shark?
- **c.** How many bullhead sharks make up a total weight of 100 pounds?

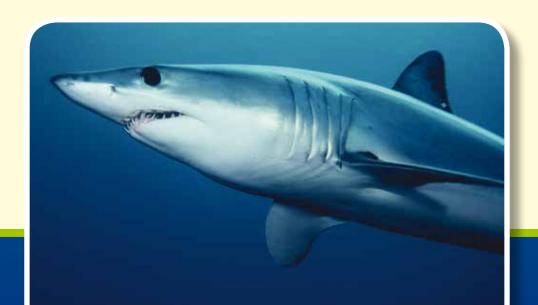


### **Sharks in the Classroom**

Students at Seaview Elementary have been learning about sharks. They want to make life-size shark pictures to display on their classroom walls. Each wall of the classroom is 45 feet (13.7 m) in length.

The students decide to display pictures of the following sharks:

Type of Shark	Length of Shark
thresher	15 feet (4.5 m)
angel	5 feet (1.5 m)
Greenland	20 feet (6 m)
bullhead	3 feet (0.9 m)





### Solve It!

Use the information in the table to answer the questions below. Note that the pictures will be displayed end to end.

- a. How many thresher shark pictures can fit on 1 wall?
- **b.** How many angel shark pictures can fit on 1 wall?
- **c.** How many Greenland shark pictures can fit on 1 wall?
- **d.** How many bullhead shark pictures can fit on 1 wall?
- e. Explain how you solved questions a and d.

## Glossary

**cartilage**—firm elastic tissue in the body **gills**—organs in fish that take oxygen from the water **plankton**—very tiny plants and animals that float
in water

predator—hunter

**prey**—an animal that is hunted and killed by another animal for food

skeletons—the bones of an animal

species—kinds of animals

units—measurements of quantity

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## ANSWER KEY

### **Let's Explore Math**

### Page 5:

- **a.** 1 foot = 12 inches, so 20 feet  $\times$  12 inches = 240 inches
- **b.** 76 miles  $\div$  19 miles per hour = 4 hours

### Page 9:

- **a.** 20 tons  $\div$  5 elephants = 4 tons each
- **b.** 20 cm  $\div$  5 cm = 4 times bigger

#### **Page 12:**

**a.**  $20 \times 16 = 320$  ounces **b.** 16 ounces  $\div 2 = 8$  ounces

#### Page 15:

- a. 100 millimeters
- **b.** The basking shark and the great white shark
- **c. 3.** 200 millimeters in length

### Page 19:

- **a.**  $6 \times 1,000 = 6,000$  milliliters
- **b.** 1 liter = 1,000 milliliters;  $\frac{1}{2}$  liter = 500 milliliters 1,000 + 500 = 1,500 milliliters

### Page 21:

- **c.** 2 tons
- Explanations will vary.

### Page 27:

- **a.** The thresher shark
- **b.** The bullhead shark
- c. 5 bullhead sharks

### **Problem-Solving Activity**

- **a.** A thresher shark is 15 feet in length. 15 feet  $\times$  3 = 45 feet, so 3 thresher shark pictures can fit on 1 wall.
- **b.** 45 feet  $\div$  5 feet = 9 feet, so 9 angel shark pictures can fit on 1 wall.
- **c.** 20 feet + 20 feet = 40 feet. Only 2 full-size Greenland shark pictures can fit on a 45-foot wall.
- **d.** A bullhead shark is 3 feet in length. 45 feet  $\div$  3 feet = 15 feet, so 15 bullhead shark pictures can fit on 1 wall.
- e. Answers will vary.