

# 2-3 At-Home Learning Resources

## (Green Packet)

### Week #11

The Richland School District cares deeply about the well-being of our students and families. We highly encourage our students and families to set a daily routine that includes the following:

**For our elementary families:**

- Read daily with your child
- Play family games (board games, cards, puzzles, charades, pictionary, etc.)
  - Engage in an outside activity
  - Cook/bake with your child
- Maintain relationships with your child's teacher

*These supplemental activities, readings, and other resources are available to students and families to continue learning and exploring while schools are closed in response to the novel coronavirus.*

*Students are not required to complete and/or turn in any assignments nor will any of these materials be used to assess students academically. Please feel free to use these optional resources as needed. Additional resources are available at:*

<https://www.rsd.edu/programs/at-home-learning/pre-k-elementary-resources>

# IMAGINE YOUR STORY

## SUMMER READING CHALLENGE

Featuring challenges, prizes, and more for every age!

Babies



Children




Middle & High Schoolers



Adults



## June 1 - August 31, 2020

Register and log your reading online at  
[richland.beanstack.org](http://richland.beanstack.org) and with the  Beanstack app  
on your phone or tablet



**RICHLAND  
PUBLIC LIBRARY**

For More Information, visit:  
[www.richland.lib.wa.us](http://www.richland.lib.wa.us)























**collaborative**  
summer library program™



Can't log online? Get started on this log!

Each space in the grid counts as 30 minutes. Date each space as you read.





















Name \_\_\_\_\_ Are you a Child \_\_\_\_ Teen \_\_\_\_ or Adult \_\_\_\_

 _____	 _____	 _____	 _____	 _____
 _____	 _____	 _____	 _____	 _____
 _____	 _____	 _____	 _____	 _____
 _____	 _____	 _____	 _____	 _____

Is there another person in your family who wants to start logging reading minutes?

Use this grid:

Name \_\_\_\_\_ Child \_\_\_\_ Teen \_\_\_\_ Adult \_\_\_\_

 _____	 _____	 _____	 _____	 _____
 _____	 _____	 _____	 _____	 _____
 _____	 _____	 _____	 _____	 _____
 _____	 _____	 _____	 _____	 _____

Bring this sheet to the library to find out which prizes you are eligible for.



**RICHLAND  
PUBLIC LIBRARY**



#### Objective

The student will form compound words.



#### Materials

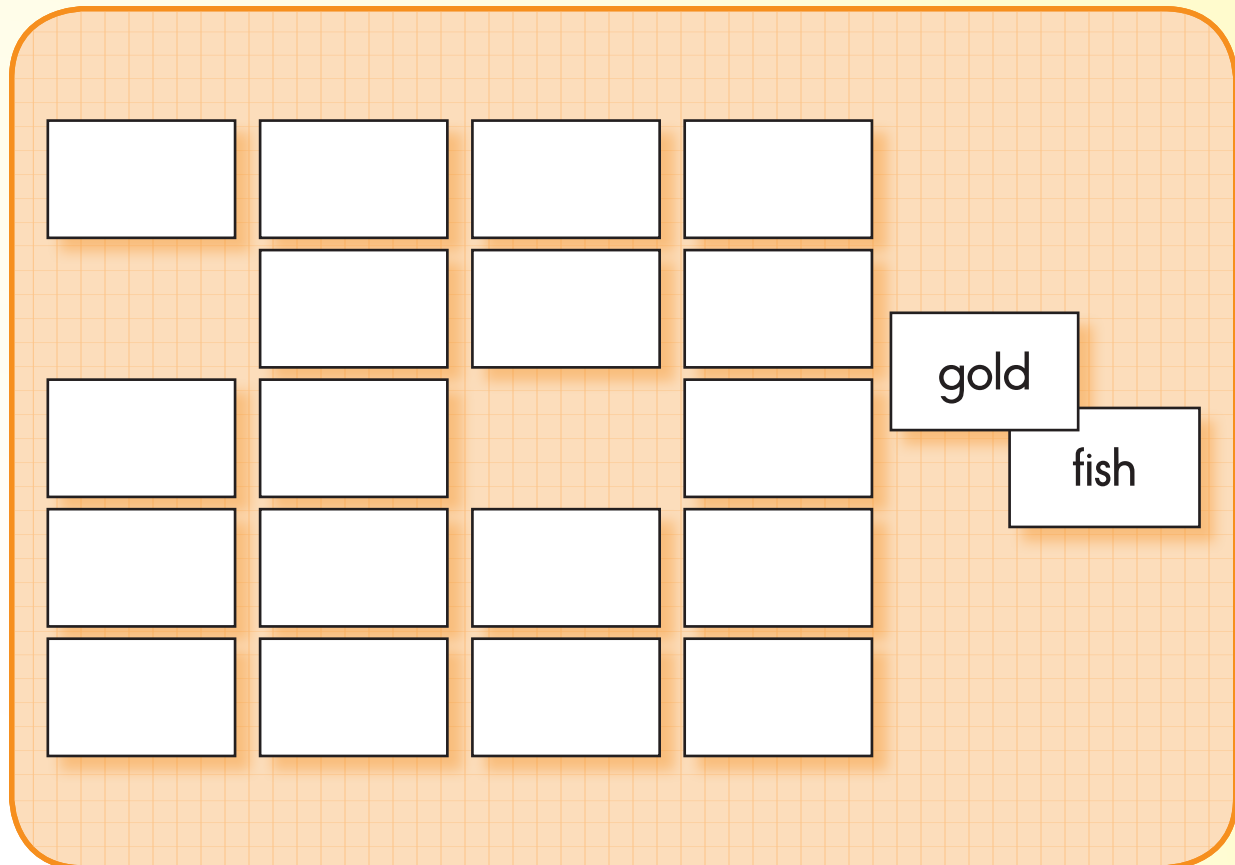
- ▶ Word cards (Activity Master P.037.AM1a - P.037.AM1f)  
*Select 8-12 target compound words.*



#### Activity

Students combine individual words to form compound words.

1. Place the word cards face down in rows on a flat surface.
2. Taking turns, students select two cards and read them.
3. Decide if cards can be put together to make a compound word. If possible, read the words together to make a compound word and place the cards side by side. If a word cannot be made, return cards to their original positions.
4. Continue until all compound words are formed.
5. Peer evaluation



#### Extensions and Adaptations

- ▶ Record compound words that are formed.
- ▶ Make more cards and play again.

# Phonics

Compound Concentration

P.037.AM1a

hair

cut

after

noon

gold

fish

flower

pot



sea

food

hot

dog

mail

box

wind

mill



# Phonics

Compound Concentration

P.037.AM1c

tooth

paste

in

side

cup

cake

day

light



grass

hopper

tea

spoon

milk

shake

rain

coat





# Phonics

Compound Concentration

P.037.AM I e

ant

hill

bed

room

blue

berry

grape

vine



hand

stand

nut

shell

news

paper

sun

set



**Objective**

The student will produce words for categories.

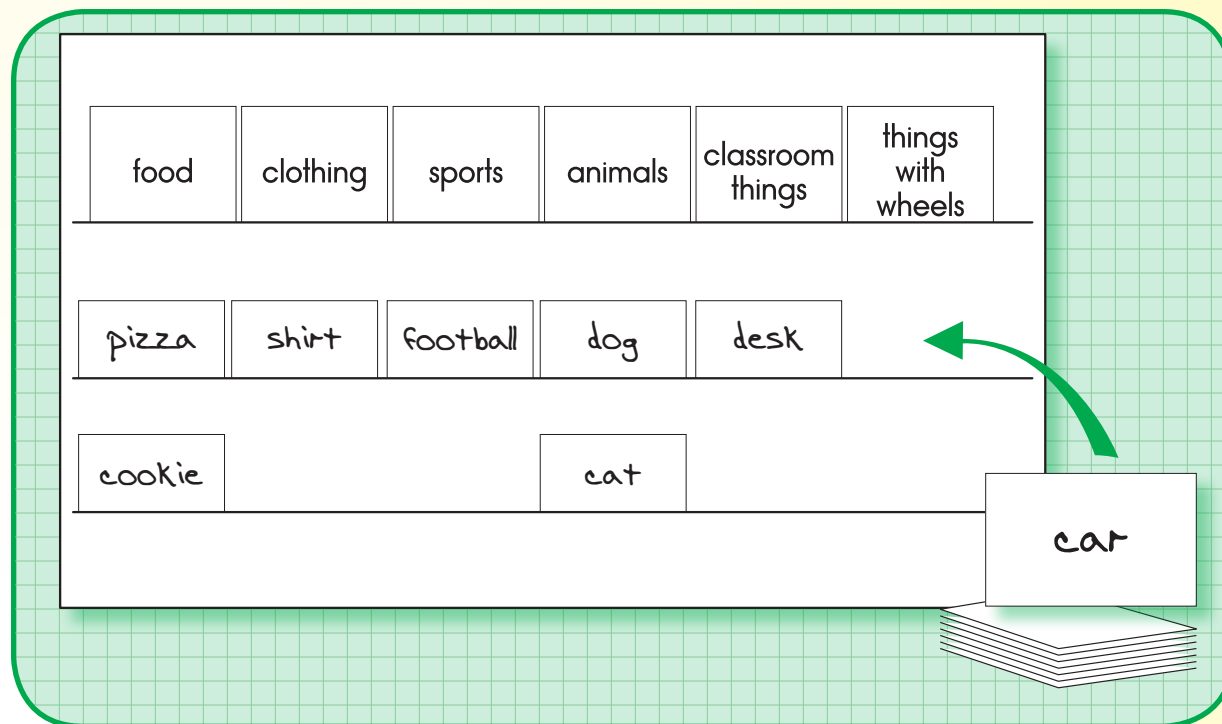
**Materials**

- ▶ Pocket chart
- ▶ Header cards (Activity Master V.022.AM1)
- ▶ Category Cube (Activity Master V.022.AM2)
- ▶ 30 Index cards
- ▶ Markers or pencils

**Activity**

Students produce and categorize words by rolling a cube and writing corresponding words.

1. Place Category Cube and pocket chart with header cards at the center. Place index cards in a stack.
2. Taking turns, students roll the word cube and read the category that lands on top (e.g., things with wheels). Say a word that goes with that category (e.g., car).
3. Write the word on an index card and read it.
4. Place the word card on the pocket chart under the correct category.
5. Continue until all the categories have five cards.
6. Peer evaluation

**Extensions and Adaptations**

- ▶ Record sorted words and other related words on the student sheet (Activity Master V.022.SS).
- ▶ Make other headings and category cubes (Activity Master V.022.AM3).

# Vocabulary

Category Cube

V.022.AMI

food

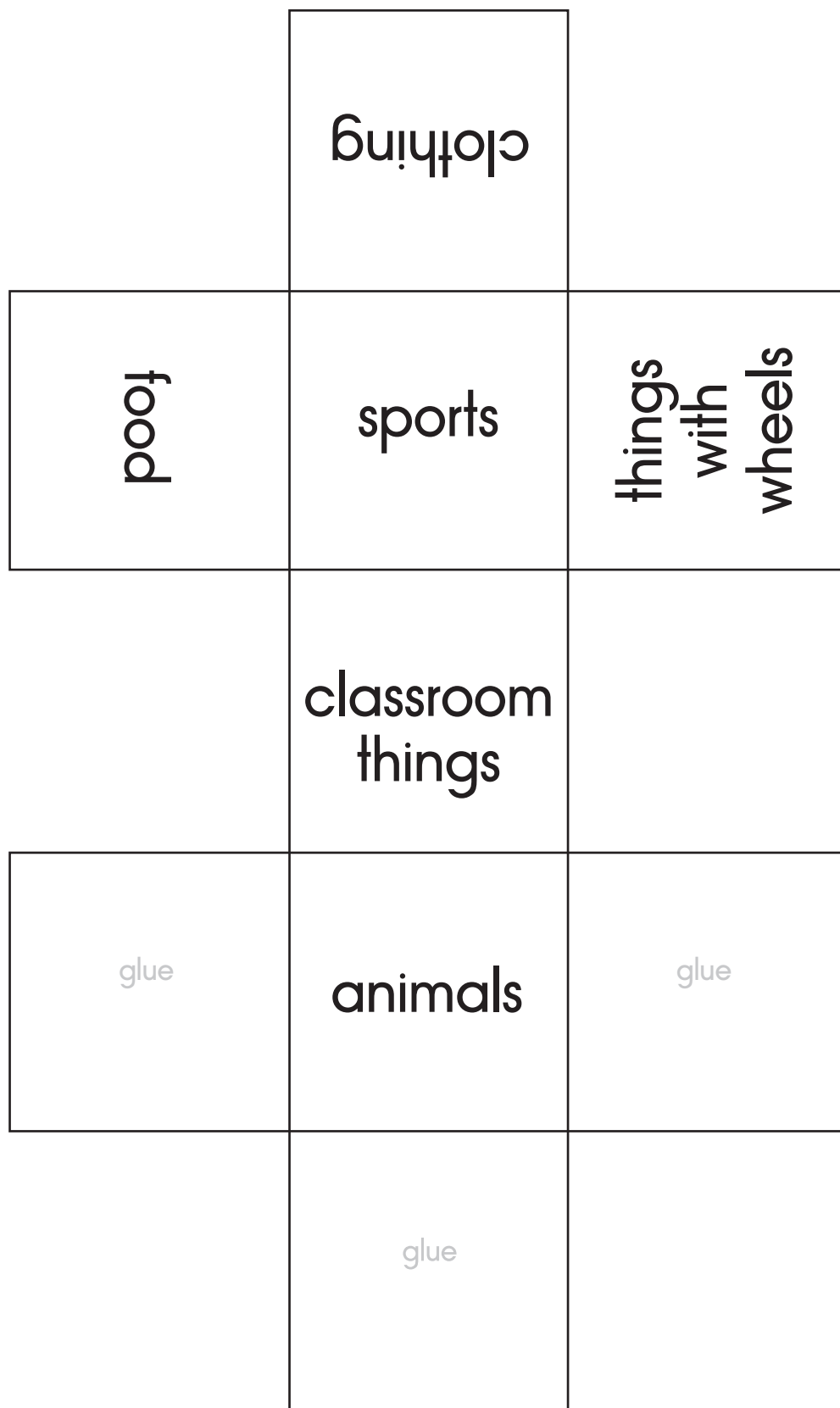
clothing

sports

animals

classroom  
things

things  
with  
wheels

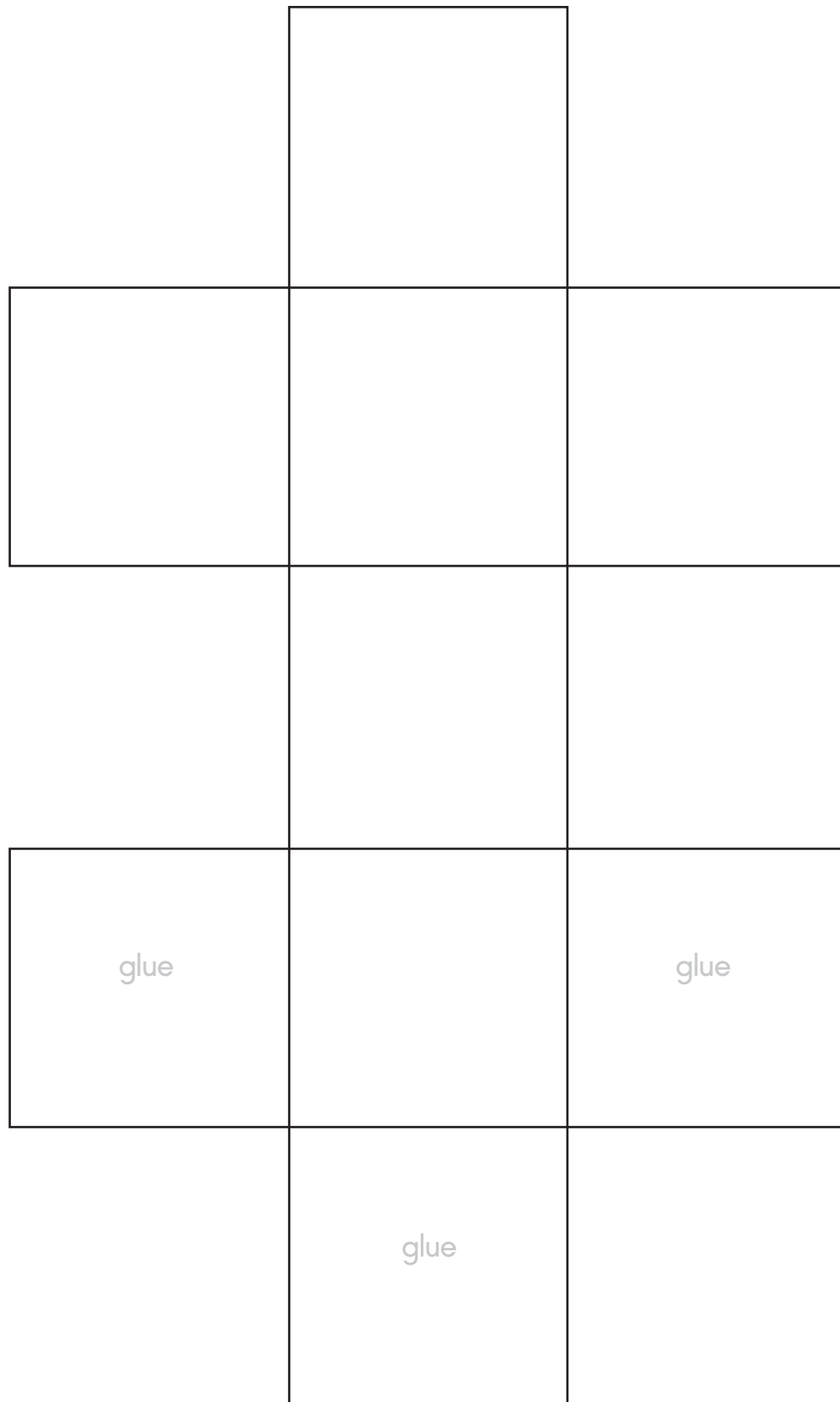


Name \_\_\_\_\_

Category Cube

V.022.SS

clothing	food	classroom things	animals	things with wheels	sports





# Comprehension

C.027

Monitoring for Understanding

Read and Ask



## Objective

The student will answer questions to comprehend text.



## Materials

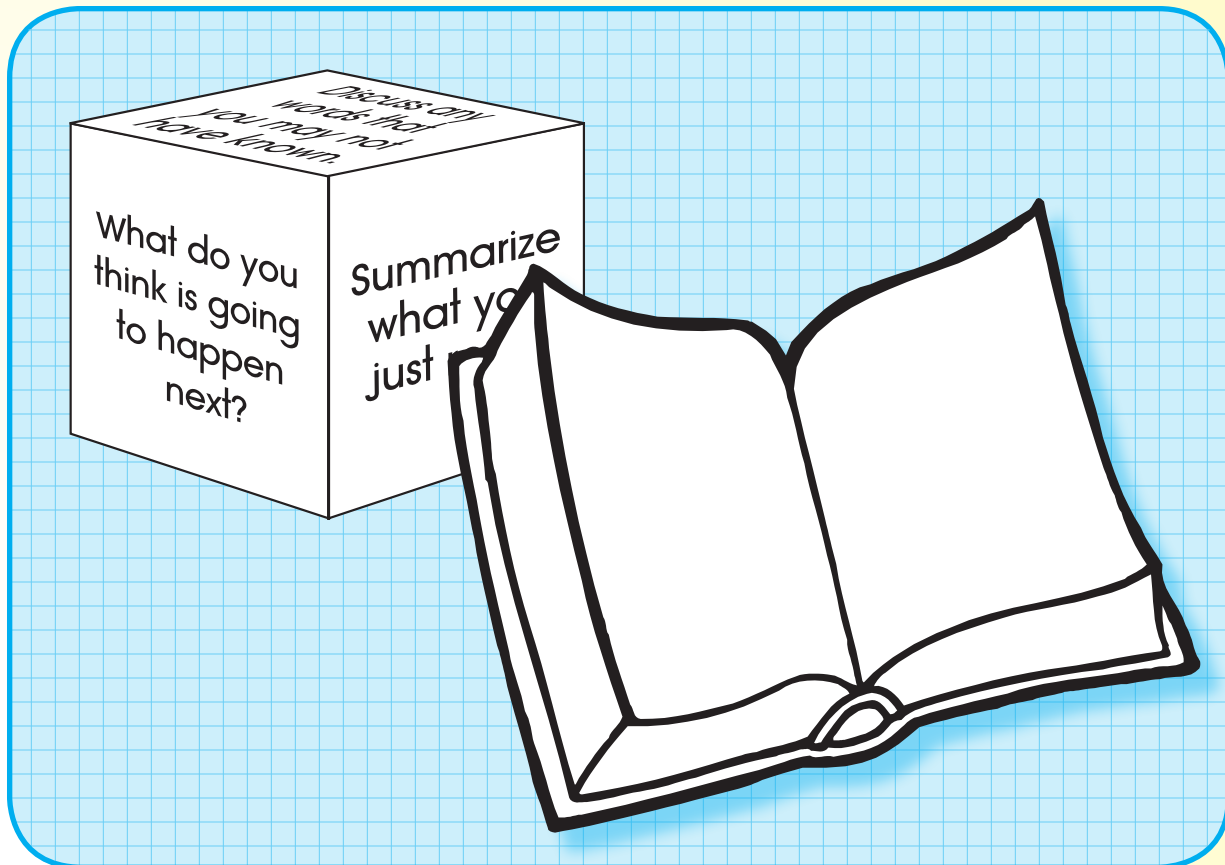
- ▶ Narrative or expository text  
*Choose text within students' instructional-independent reading level range.*
- ▶ Question cube (Activity Master C.027.AM1)



## Activity

Students discuss text by using a question cube.

1. Place text and question cube at the center. Provide each student with a student sheet.
2. Taking turns, the students read entire text aloud.
3. Roll the question cube, read the question, and answer it based on the text.
4. Discuss answer with partner.
5. Continue the activity until all the questions are answered at least once.
6. Peer evaluation



## Extensions and Adaptations

- ▶ Record answers (Activity Master C.027.SS).
- ▶ Make other cubes with different questions (Activity Master C.027.AM2).




# Comprehension

Read and Ask

C.027.AMI

	Summarize what you just read.	
How does what you just read relate to your own life?	Discuss any words that you may not have known.	What do you think is going to happen next?
	Based on what you read, what are you curious or interested in knowing more about?	
glue	Did you understand what you just read? Why or why not?	glue
	glue	



# Name \_\_\_\_\_

**C.027.SS**

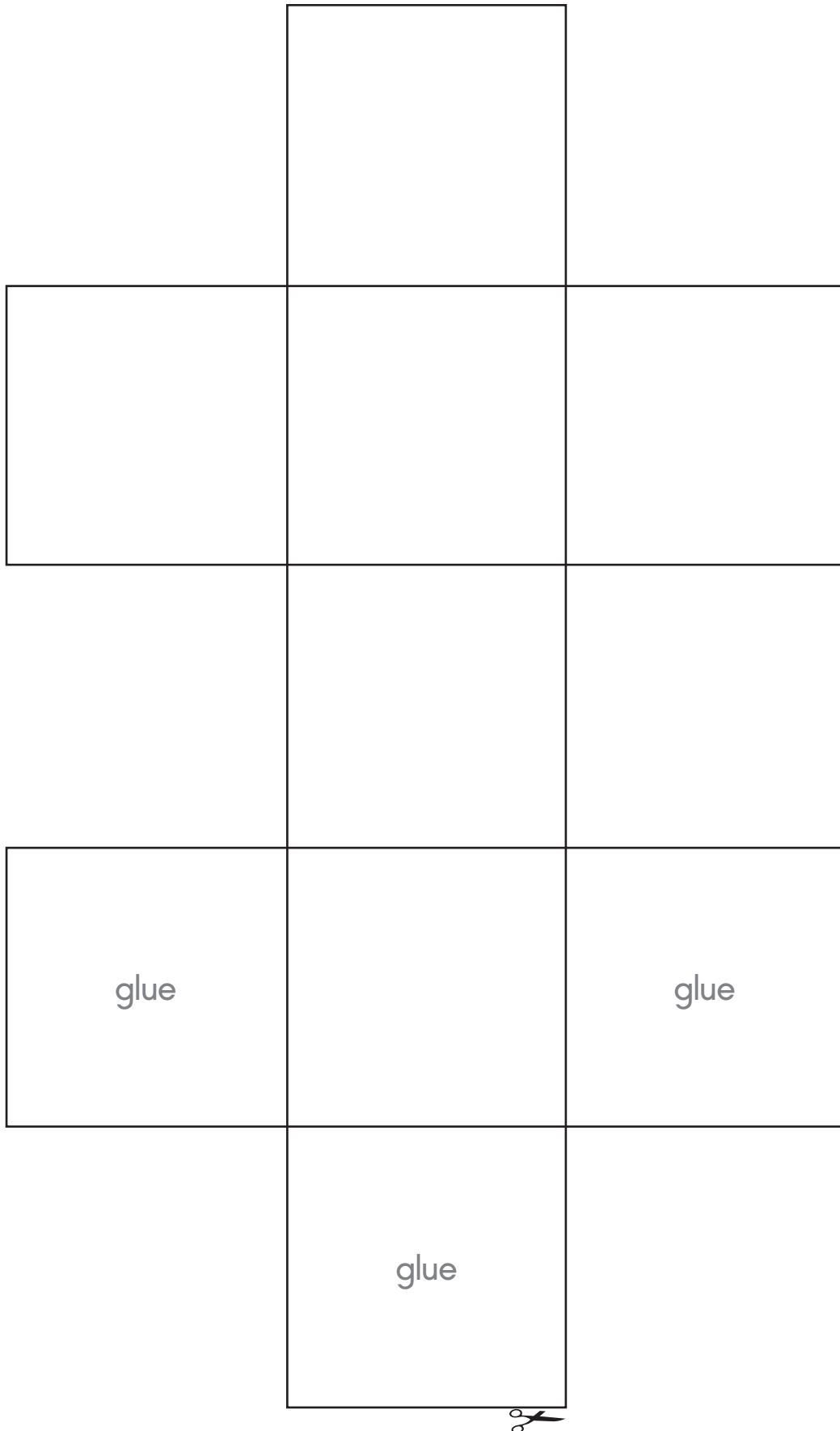
Read and Ask

What do you think is going to happen next?	
Did you understand what you just read? Why or why not?	
Discuss any words that you may not have known.	
How does what you just read relate to your own life?	
Based on what you read, what are you curious or interested in knowing more about?	
Summarize what you just read.	

# Comprehension

Read and Ask

C.027.AM2



# Questions to Ask Before, During, and After Reading

These are questions to help engage students in discussions and conversations about reading. These questions are just suggestions and other questions can be added to this list based upon the type of reading students are involved in.

## **Before Reading**

- What is the title of the book or text?
- What does this title make you think about?
- What do you think you are going to read about? (Make a Prediction)
- Does this remind you of anything?
- Are you wondering about the text or do you have any questions before reading?
- Skim through the article. Do any pictures, key words, and/or text features stand out to you?

## **During Reading**

- What is happening so far?
- What does the word \_\_\_\_\_ mean on this page?
- What do you think the author is trying to communicate in this part?
- What do you think was important in this section? Why do you think it was important?
- What can you infer from this part of the text?
- Where is the story taking place?
- Who are the characters so far?
- What do you think will happen next?
- What does this part make you think about?
- What questions do you have?
- What words help you visualize what the author is saying?
- Is there a word that you struggled with? What is the word? Let's break the word into parts and look at context clues.

## **After Reading**

- What was this text about?
- What was the main idea? What details from the text helped you determine the main idea?
- What did you learn from this text?
- How did the author communicate his/her ideas?
- What does this text remind you of?
- What was your favorite part and why?
- Did this text have a problem? If so, what was the problem and what was the solution?
- What is your opinion about this text? What are some parts that helped you make that opinion?
- What are some questions you still have about the text?
- Does this text remind you of other texts you have read? How are they alike and/or different?
- What is a cause and effect from the text you read?

# The Giant Cookie



By Clark Ness

Visit [www.clarkness.com](http://www.clarkness.com) and [www.readinghawk.com](http://www.readinghawk.com)  
for more free ebooks and online stories.

Reading Level: Flesch-Kincaid Grade Level 2.3

A Fiction Chapter Book  
8 pages, 531 words

## Chapter 1 - Lunch

The students from Ms. Smith's class were in the gym. They were eating lunch.

"I just love lunchtime," said Sarah.

"Me, too," said Sami.

"Hey, Willy," said Mike. "That is a cool cookie."

"Thanks," said Willy. "It came with my lunch."

"It looks like a little cookie man," said Ethan.



## Chapter 2 - Bigger

“Maybe we could make it bigger,” said Dan. He pulled the lucky buffalo nickel out of his pocket.



“You need to be careful with that nickel,” said Beth.

“Ms. Smith said I could use the lucky buffalo nickel at lunch,” said Dan.

“It will be fun to see the cookie get bigger,” said Andy.

“Bigger cookie, bigger cookie, bigger cookie,” said Dan.

*Poof!* Willy’s cookie started to grow.

## Chapter 3 - Grow

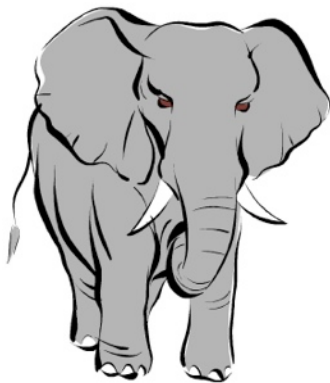
“Cool,” said Dave. “Look at that cookie grow.”

“Look! The cookie is as big as a cat,” said Emily.

“Now it is as big as a dog,” said Olivia.

“Oh, no. It just got as big as a horse,” said Emma.

The gym went quiet. Everyone had stopped eating. They all watched Willy’s



giant cookie grow.

“It is as big as an elephant,” said Abby.



## Chapter 4 - Gulp

“The cookie is standing up. It has stopped growing. Its head almost hits the ceiling of the gym,” cried out Matt.



The cookie looked down at all of the students. None of the them moved.

“Look, the cookie is licking its lips,” said Chris.

In a flash, the cookie reached down and grabbed Dan. *Gulp.*

“The cookie just ate Dan!” screamed Hannah.

## Chapter 5 - Glasses of Milk

“Someone grab the lucky buffalo nickel. We need to get rid of this cookie,” said Jacob.

“We can’t get the nickel. Dan has it, and he is inside that giant cookie!” cried out Grace.

Ashley jumped up from the table. She ran to the lunch ladies.

“Give me two big glasses of milk,” she said.



The lunch ladies quickly handed her two big glasses of milk.

## Chapter 6 - Brave Ashley

The students were frozen in their seats. The giant cookie looked at all of them. It licked its lips again.

“It is going to eat another one of us,” cried out Josh.

Ashley held a glass of milk in each hand. Bravely she walked toward the cookie.

When she was just ten feet away from the giant cookie, it saw her. It grabbed her and picked her up.



## Chapter 7 - Got Milk?

As the cookie was about to put Ashley in its mouth she yelled, “Hey, cookie, got milk?” She threw the milk that was in the two glasses onto the face of the giant cookie.



In an instant, the cookie became soggy from the milk. It fell apart and crashed to the floor. Luckily, the crumbled cookie was soft so Ashley came down without getting hurt.

Dan popped out from the pile of cookie crumbs.

## Chapter 8 - Thanks

“Thanks, Ashley, you saved me,” said Dan.

“I am glad that I thought about milk and cookies,” said Ashley. “I know that milk will make cookies fall apart.”

Dan took the lucky buffalo nickel out of his pocket.

“Normal, normal, normal,” he said.



*Poof!* Everything was back to normal and the students went back to eating their lunches.

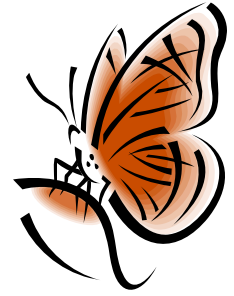
“We have to be careful with this lucky buffalo nickel,” said Dan.

“It sure is powerful.”

# Hannah Sees a Butterfly

By Clark Ness

[www.clarkness.com](http://www.clarkness.com)



Hannah was outside in the yard one morning with her magic nickel. She was looking at the flowers that were in a flower bed. A butterfly flew by and landed on one of the flowers.

"I wish I could fly around like a butterfly," she said.

"Well just make yourself small and you can fly on me," said the butterfly.

Hannah looked at this talking butterfly. It looked just like the other butterflies, but it could talk.

"You can talk," said Hannah.

"Yes, I can. I learned to talk by hearing people talk when they were out in their yards," said the talking butterfly.

"Can I really fly on you?" asked Hannah.

"Yes, you can. Just get small, and I will pick you up," said the butterfly.

So Hannah held up the magic nickel and said, "Small, small, small."

*Poof!* Hannah was small. She was about two inches tall. The butterfly landed next to her.

"Hop up on my back," said the butterfly.

Hannah hopped up on the back of the butterfly. It was just like getting on a horse.

"This is so cool. Thanks, Mr. Butterfly," said Hannah.

"Off we go," said the butterfly. He flapped his wings, and up into the air went Hannah on the back of the butterfly.

"This is neat," said Hannah as they went over the grass and then up over the flowers. "Can you go up higher?"

"Yes, we can. Watch this," said the butterfly. He flapped his wings hard and soon they were above Hannah's home.

"I can see all over," said Hannah with a big grin. "This is fun to see my home from high up."

Just then Hannah looked up and saw a bird coming right at them.

"Look out!" she screamed. "A bird is coming at us."

"That bird wants to eat us. Hold on," said the butterfly. The butterfly started to fly this way and that way so the bird would miss them. But the bird kept coming. Hannah could see the bird's mouth was wide open.

"You are not going to eat us," she said to the bird, and she shook her fist at it. She then held up the magic nickel and said, "Sand, sand, sand."

*Poof!* There was a small pile of sand on the back of the butterfly. With one hand Hannah held on to the butterfly and her magic nickel. With the other hand she grabbed some sand.

The bird got closer and closer to Hannah and the butterfly. Just as the bird was about to bite them, Hannah threw some sand into the bird eyes.

"*Tweet!*" screamed the bird as it closed its eyes and stopped going after Hannah and the butterfly. The bird flew away shaking its head.

Hannah and the butterfly soon landed back at the flower bed.

"Good thinking," said the butterfly to Hannah. "That sand did a good one on that bird. You saved us."

"I was glad my lucky nickel was with me. Thanks for the ride. It was fun until that bird went after us," said Hannah.

"I am glad you liked flying," said the butterfly. "We can do that again." The butterfly then flew away.



"Big, big, big," said Hannah as she held the magic nickel.

*Poof!* Hannah was big again. She went into her home to tell her mother all about flying on the back of a butterfly.

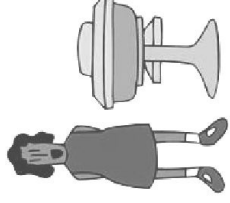
Flesch-Kincaid Grade Level - 3.2  
Flesch Reading Ease - 87.7

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More free stories and books are available at [www.clarkness.com](http://www.clarkness.com).

## Listening, Speaking, Reading, Writing

Cross-Curricular Focus: Thinking Skills



You may think you are really good at using the English language. This may be so, but you still need to practice. To use any language well, you have to practice listening, speaking, reading and writing.

Most students read and write in class. Those are both taught in school, so you practice reading and writing often.

You might think you speak well. You may. Still, you may not always say things in a way that helps people understand what you mean. Think about what you will say before you speak out loud in class. When you talk in front of the class, use a nice, loud voice so that everyone in the class can hear you.

Some people are better at listening than others. Everyone can use some practice. When someone is speaking, give the person your full attention. Turn and look at the speaker. Focus on what the speaker is saying instead of what you plan to say next.

Name: \_\_\_\_\_

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What four things do you need to practice to use English well? \_\_\_\_\_

2) Which of those things do you practice the most at school? \_\_\_\_\_

3) What is one thing you can do to practice speaking? \_\_\_\_\_

4) What is one thing you can do to practice listening? \_\_\_\_\_

5) Which do you need to practice more, listening, or speaking? \_\_\_\_\_

# An Independent Nation

**Cross-Curricular Focus: History/Social Sciences**



Before the United States was a country, it was a group of English colonies. Until 1763, England didn't really bother the American colonists. The people handled their business the way they wanted. However, England had a lot of war debts to pay. Some of the money was owed because England had defended the colonies in the French and Indian War. Citizens who were living in England wanted taxes to be lowered. The king decided to take more control over the colonies to get the money to pay off the debts. He started a new tax for the colonies. After being left to make their own decisions for so long, some of the colonists did not want to give up control. They did not want to pay high taxes. They did not want to follow rules that didn't make sense to them. Colonists were not given a chance to participate in government decisions in England.

The colonists were divided. Loyalists wanted the colonies to stay part of England. Patriots wanted America to be **established** as an independent nation.

The Patriots decided that it was time to send a letter to the king. They wanted to make an official declaration, or statement, of **independence**. Thomas Jefferson wrote the group's ideas into a letter to King George III. Jefferson explained why the colonists believed they no longer had to listen to his authority. By signing the Declaration of Independence, the men were risking their lives if the colonies lost the war. They signed it anyway.

Fighting in the American Revolutionary War had already begun when Jefferson wrote the Declaration of Independence. After the war was over, there was still work to do. The job of uniting 13 separate colonies into one nation had to be done. It was a difficult process with lots of compromises. In 1781 the **Constitution** was written to describe the rights and responsibilities of the new government and its people.

Name: \_\_\_\_\_

**Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.**

- 1) What country did the American colonies belong to before the American Revolutionary War?  
\_\_\_\_\_  
\_\_\_\_\_
- 2) Why did King George III decide to take more control over the colonies than he had before?  
\_\_\_\_\_  
\_\_\_\_\_
- 3) Did all the colonists think that it was time to be independent from England? Explain.  
\_\_\_\_\_  
\_\_\_\_\_
- 4) Do you think you would have been willing to risk death by signing the declaration of independence? Why, or why not?  
\_\_\_\_\_  
\_\_\_\_\_
- 5) What are some rights and responsibilities you think citizens should have?  
\_\_\_\_\_  
\_\_\_\_\_

# Scientists At Work: Solving the mysteries of the shy, majestic whale shark

By Associated Press, adapted by Newsela staff on 03.09.18

Word Count **778**

Level **610L**



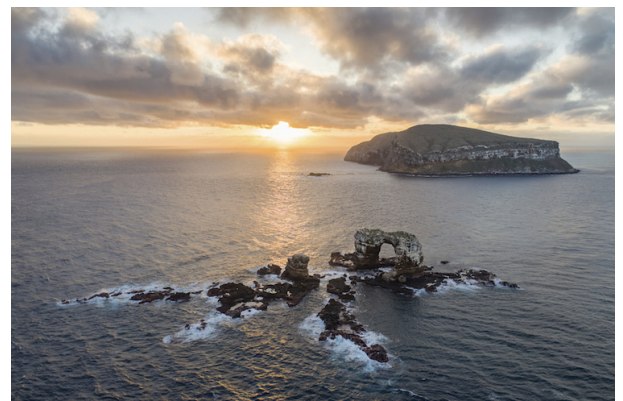
Image 1. In this 2017 photo, a whale shark swims past Alexandra Watts in the Galapagos Islands area of Ecuador. Photo from [simonjpierce.com/AP](https://www.simonjpierce.com/AP)

**GALAPAGOS ISLANDS, Ecuador** – The whale shark is the largest fish in the sea. Yet it is still hard to find. It is a shy animal.

In 2017, a group of scientists swam with whale sharks in the Galapagos Islands. This is a group of islands in the Pacific Ocean, near South America. The scientists know much about whale sharks. But there is still much more to learn.

## Is It A Whale Or A Shark?

They may be as big as whales, but whale sharks are still sharks. Most sharks have big, scary teeth. But whale sharks have tiny teeth. They can grow to between 20 and 52 feet long. Some weigh more than 20 tons. That is bigger than a couple of school





buses. Whale sharks only eat plankton, fish eggs and tiny fish. Plankton are tiny sea animals. Most planktons are too small for humans to see.

Whale sharks are slower than other sharks. But they swim faster than people. All they need to do is wave their tail. They have wide, flat heads. Their dark-blue bodies are covered in dots. These dots help to hide them underwater.

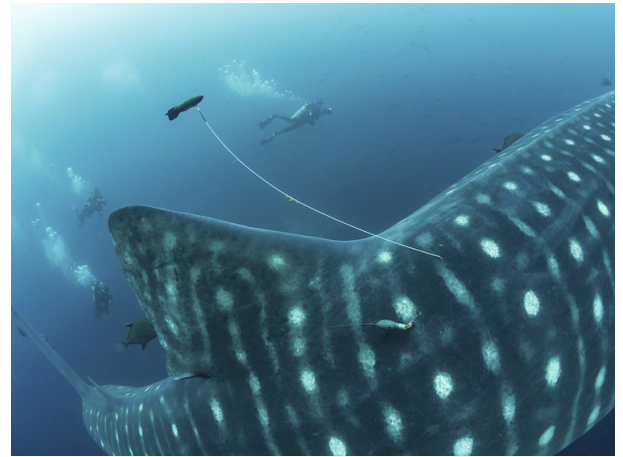
### **Places They Like To Be**

Whale sharks like warm waters. They are often found near Australia, the Philippines and Mexico. Hundreds of whale sharks gather in these areas to eat fish eggs. Most of them are male. Scientists do not know where females go to feed at that time.

### **Following Whale Sharks**

Scientists often put tags on whale sharks. These tags are connected to computers. That is so scientists can track whale sharks when they swim. Other scientists want to know about how whale shark babies are born. Only one pregnant whale shark has ever been found.

Each whale shark has special dots on its skin. Scientists can look at these dots to recognize each shark. More than 8,000 whale sharks have been counted so far. Divers take pictures of them. Scientists use these pictures to study the sharks. So far, none of the sharks spotted in the Galapagos have been seen anywhere else.



### **Where Are The Baby Sharks?**

Pregnant whale sharks are often seen in the Galapagos. This does not happen in many other places. Almost all the sharks found there are female. Many have big bellies. This means they might be having baby sharks. Some scientists believe the mother whale sharks go to the Galapagos to give birth. It might be a safe place for their young.

### **Tagging And Following**

It is hard to study a whale shark while it is swimming. Scientists could only get two blood samples. They also used ultrasound. But it did not give any answers. Ultrasound devices use sound to take pictures of the inside of the body.

Jonathan Green leads the Galapagos Whale Shark Project. This is a science group that studies whale sharks. Green said that better machines are needed.

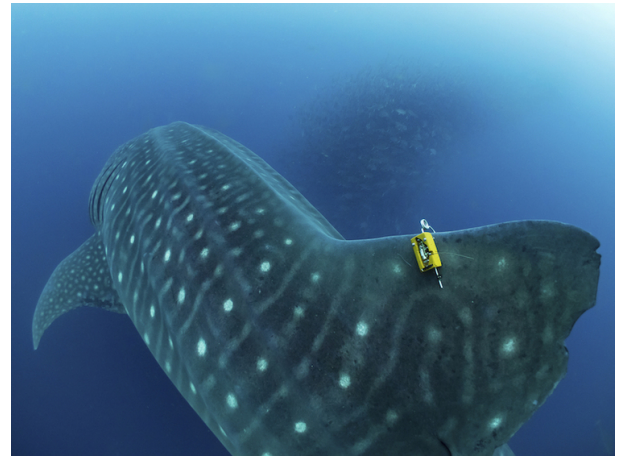
Scientists were able to tag seven sharks. The tags do not always stay on. Sometimes whale sharks dive deep underwater. The deeper they go, the more pressure there is. That pressure can make the tags fall off.

### **We Need To Know More To Save Whale Sharks**

Many whale sharks are dying. Humans often hunt whale sharks for food. Simon Pierce said that there are fewer and fewer whale sharks in the world. Pierce is a scientist at the Marine Megafauna Foundation. This is a group that studies and tries to protect sea animals.

Many scientists also worry about climate change. People burn fuel to make energy. Many things from cars to lights run on this energy. Burning fuels makes greenhouse gases. The gases become trapped in the air. The gases store heat, making the world hotter. It is making oceans warmer. This could kill plankton. If this happens, whale sharks will have less food.

Green hopes the whale sharks can be saved. He has been diving with whale sharks for years. Green still gets goosebumps every time he sees "that huge blue shadow in the water," he said.



## Quiz

- 1 What is the MAIN idea of the section "We Need To Know More To Save Whale Sharks"?
- (A) Scientists are worried that hunting and climate change could kill whale sharks.
  - (B) Scientists get very excited when they see the shadow of a whale shark in the water.
  - (C) Scientists think that burning fuels creates gases that lead to climate change.
  - (D) Scientists believe that stored heat in the oceans is bad for tiny plankton.
- 2 Finish the sentence below.
- One MAIN idea of the article is that \_\_\_\_\_
- (A) scientists sometimes see pregnant whale sharks.
  - (B) whale sharks have special dots on their skin.
  - (C) scientists want to learn more about whale sharks.
  - (D) whale sharks are often found in warm waters.
- 3 Which section of the article gives information about how whale sharks compare to other sharks?
- (A) "Is It A Whale Or A Shark?"
  - (B) "Places They Like To Be"
  - (C) "Where Are The Baby Sharks?"
  - (D) "Tagging And Following"
- 4 What does the section "Following Whale Sharks" show the reader?
- (A) what whale sharks most like to eat
  - (B) where whale sharks gather to feed
  - (C) why scientists think whale sharks go to the Galapagos
  - (D) how scientists track and recognize whale sharks

# Scientists At Work: Diving in underwater caves for new forms of life

By Tom Iliffe, The Conversation, adapted by Newsela staff on 02.06.18

Word Count **762**

Level **810L**



Image 1. Author Tom Iliffe (right) leads scientists in a cave dive. Photo by: Jill Heinerth

Many university professors perform experiments in labs. Others study old books in the library. I get to go cave diving. I study underwater caves and the sea animals that live in them. My diving partners and I often explore caves no one else has seen before.

Over the last 40 years, I have explored more than 1,500 underwater caves around the world. I've been to Australia, to the Mediterranean Sea between Europe and Africa, and to Hawaii. I've also been to the Bahamas, which are islands near Florida, and to the Caribbean Sea. The experience can be breathtaking. I might dive in a cave that is as deep as a building with nine floors. These caves have zero light and can be 20 miles long. I never know what I am about to see.

I mainly search for new forms of life. Most of the animals I find are white crustaceans without eyes. Crustaceans are sea animals with shells, like crabs and shrimp. The ones I find don't need eyes because they live in places that are completely dark.



The caves I'm interested in are filled with water and can only be explored in person. The only way to get there is to strap on a scuba tank and jump in. Scuba tanks contain air for me to breathe underwater.

### Science As Extreme Sport

Many things can go wrong during a cave dive. Equipment can fail and scuba tanks can leak. You can get lost. The cave you are exploring can fall in or fill with poisonous gas. This kind of environment is extremely dangerous. I have had some close calls over the years. Sadly, I have lost several good friends and scientists in cave accidents.

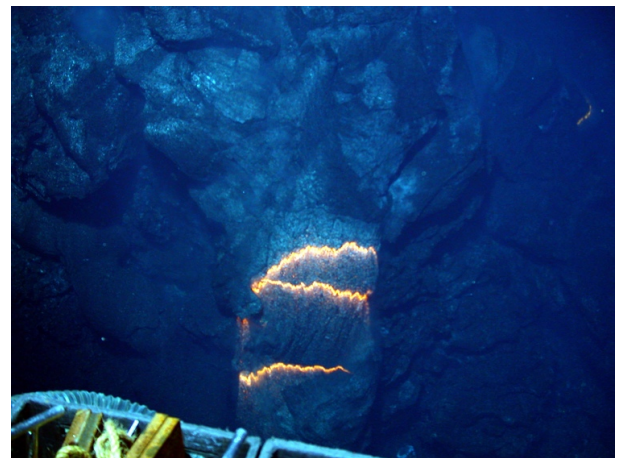
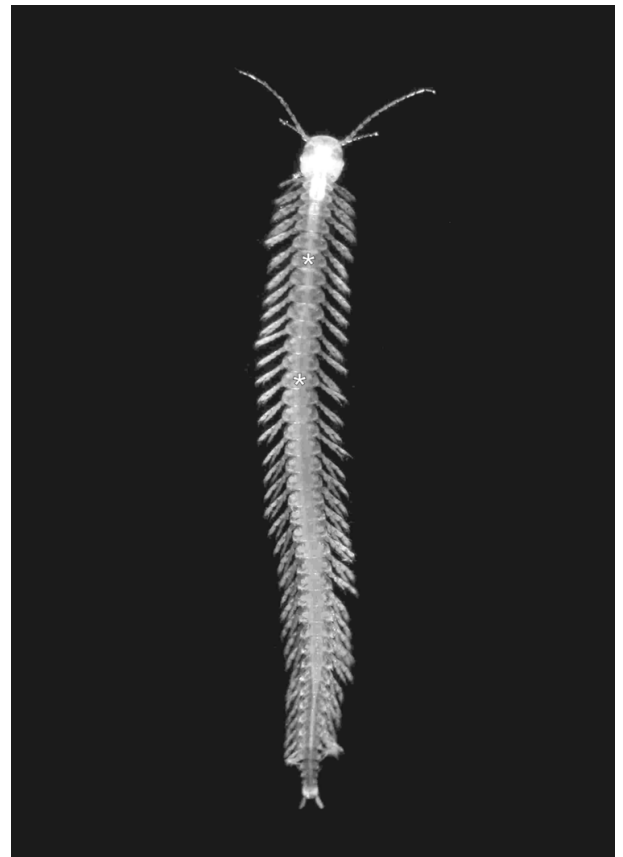
When accidents happen, someone usually made a mistake. Divers don't follow the rules or they don't have enough training and experience in cave diving. My family has gotten used to the idea that my job is not always safe. They know that safety and being prepared is important to me. I always follow the first and most important rule of cave diving. The rule is you never, ever dive alone. The other scientists and I usually go into a cave with teams of divers. We are always checking on each other to make sure everyone is OK. Our dives usually last about an hour and a half, but can be as long as three hours or more.

### Dangerous Dives Pay Off

My team has discovered completely new creatures. Some of them are related to animals living in caves on the opposite side of the Atlantic Ocean. Others are related to animals on the opposite side of Earth. Our team also discovered the deepest underwater cave in the U.S. The cave is in Texas, and it is hundreds of feet deep.

In my lab, I have students working on different projects. Some students are looking into how high the sea was during the Ice Age more than 10,000 years ago. This was a time in which sheets of ice covered much more land compared to today. We're also finding cave animals that are related to each other but live on opposite sides of the Atlantic Ocean. These species separated about 110 million years ago when the ocean formed. We're also finding out how the environment affects animals in saltwater caves.

Our research is important, especially for endangered species and protecting the environment. Many cave animals can be found only in one cave and nowhere else on Earth. If that cave is polluted or destroyed, it could wipe out an entire species.



I am 69 years old, and the risks of cave diving are still worth it. I have the chance to discover new sea animals. I have been the first person to see certain underwater caves, and I swam in some of the bluest and purest water on Earth. I will take that sort of research and its challenges any day. I love it, and I will tell you with all honesty that I can't wait until my next trip.

*Tom Iliffe teaches about sea life at Texas A&M University in Texas.*

## Quiz

- 1 Read the second paragraph of the article.

*Over the last 40 years, I have explored more than 1,500 underwater caves around the world. I've been to Australia, to the Mediterranean Sea between Europe and Africa, and to Hawaii. I've also been to the Bahamas, which are islands near Florida, and to the Caribbean Sea. The experience can be breathtaking. I might dive in a cave that is as deep as a building with nine floors. These caves have zero light and can be 20 miles long. I never know what I am about to see.*

Which sentence from the paragraph explains HOW the cave diver feels about his job?

- (A) Over the last 40 years, I have explored more than 1,500 underwater caves around the world.
- (B) I've been to Australia, to the Mediterranean Sea between Europe and Africa, and to Hawaii.
- (C) The experience can be breathtaking.
- (D) These caves have zero light and can be 20 miles long.

- 2 Read the paragraph from the section "Dangerous Dives Pay Off."

*In my lab, I have students working on different projects. Some students are looking into how high the sea was during the Ice Age more than 10,000 years ago. This was a time in which sheets of ice covered much more land compared to today. We're also finding cave animals that are related to each other but live on opposite sides of the Atlantic Ocean. These species separated about 110 million years ago when the ocean formed. We're also finding out how the environment affects animals in saltwater caves.*

What conclusion is BEST supported by this paragraph?

- (A) Cave divers spend most of their time exploring saltwater caves.
- (B) Cave divers do research in many different areas.
- (C) Cave divers prefer to study animals that lived long ago.
- (D) Cave divers spend more time in caves than doing research.

- 3 Read the first paragraph of the article.

*Many university professors perform experiments in labs. Others study old books in the library. I get to go cave diving. I study underwater caves and the sea animals that live in them. My diving partners and I often explore caves no one else has seen before.*

Which answer choice describes the structure of the paragraph?

- (A) comparison
- (B) cause and effect
- (C) chronology
- (D) problem and solution

Read the section "Science As Extreme Sport."

Which answer choice BEST describes the overall structure of the section?

- (A) chronological order
- (B) problem and solution
- (C) cause and effect
- (D) comparison

## English Language Learner Supplement 2-3

Excerpt from **My Shadow**

By Robert Louis Stevenson

I have a little shadow that goes in and out with me,

And what can be the use of him is more than I can see.

He is very, very like me from the heels up to the head;

And I see him jump before me, when I jump into my bed.

The funniest thing about him is the way he likes to grow—

Not at all like proper children, which is always very slow;

For he sometimes shoots up taller like an India-rubber ball,

And he sometimes gets so little that there's none of him at all.

**Reading:** Read the poem once to yourself and once to someone at home. Circle any words that are new to you, and get help finding out what they mean.

**Listening:** Ask someone at home to read you the poem out loud while you close your eyes and listen. Try to picture what the words are saying in your mind.

**Speaking:** Tell someone at home what the poem is saying in your own words.

**Writing:** In the space below, pretend you are a shadow. Use describing words to tell about the places you would go.

Poem in the Public Domain

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## **Suplemento para**

### **Estudiantes que Aprenden Inglés 2-3**

Extracto de **Mi Sombra**

Por Robert Louis Stevenson

Tengo una pequeña sombra que entra y sale conmigo

Y lo que puede ser su uso es más de lo que puedo  
ver.

Él es muy, muy parecido a mí desde los talones hasta  
la cabeza;

Y lo veo saltar delante de mí, cuando salto a mi cama.

Lo más divertido de él es la forma en que le gusta  
crecer:

No como niños apropiados, que siempre es muy len-  
to;

Porque a veces se dispara más alto como una pelota  
de goma india,

Y a veces se pone tan poco que no hay nada de él.

Poema en el Dominio Público

Se recomienda que los niños completen la página  
en inglés para practicar las habilidades en inglés.

**Lectura:** Lee el poema una vez para ti y otra  
para alguien en casa. Encierre en un círculo  
las palabras que son nuevas para usted y ob-  
tenga ayuda para descubrir lo que significan.

**Escuchar:** Pídele a alguien en tu casa que te  
lea el poema en voz alta mientras cierra los  
ojos y escuchas. Intenta imaginar en tu men-  
te lo que las palabras están diciendo.

**Hablando:** Dile a alguien en casa lo que dice  
el poema con tus propias palabras.

**Escritura:** En el espacio de abajo, finge que  
eres una sombra. Use palabras descriptivas  
para contar sobre los lugares a los que iría.

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# Writing Ideas 2-3 Elementary Week #11

Students can compose sentences and/or paragraphs to respond to the prompts and ideas below. This will vary depending on their age/grade level.

## **Narrative**

- What did you do over the weekend? Write a personal narrative to tell about your weekend. You should include what you did, the order you did it in, and who and/or what was involved. Be sure to include a sequence of events, details, descriptions, and the setting. Establish an introduction, middle, and conclusion.

## **Opinion/Argument**

- What is your favorite color? Why is it your favorite color? Write an opinion piece on your favorite color and why it is the best. Add reasons, examples, and/or details to support your opinion. Be sure to have an introduction and a conclusion that relates to the opinion stated.

## **Informational/Explanatory**

- Did you know there are many things that fly! There are airplanes, hot air balloons, kites, spaceships, various birds, bats, insects, and even flying squirrels. Talk to someone in your family or do some research to find out more about things that fly. Pick your favorite thing that can fly and write an informational piece about it. Learn as much as you can about it. Be sure to add enough facts, information, and/or details. Introduce your topic and have a conclusion.

## **Writing in Response to Reading Bingo**

Complete the Bingo board by engaging in various writing ideas from this week's reading selections. Try to get 3-in-a row!

If you were the author of **Hannah Sees a Butterfly**, how would you have written the story? Write your own version of this story and share it with a family member. For more information on butterflies, watch the video at <https://bit.ly/2B89VzT>

Select one of this week's readings and write a summary about what you have read. Remember that a summary is a short retelling of the text in your own words. For a short video on summary writing go to <https://bit.ly/2yDmEtv>.

Have you ever explored what is known about underwater caves? If not, maybe you want to learn more about them. Write an informational piece on your findings. For more fun, watch the video at <https://bit.ly/2A94Gzn>

Write about how the two reading selections **Scientists At Work: Solving the mysteries of the shy, majestic whale shark** and **Scientists At Work: Diving in underwater caves for new forms of life** are similar and/or different.

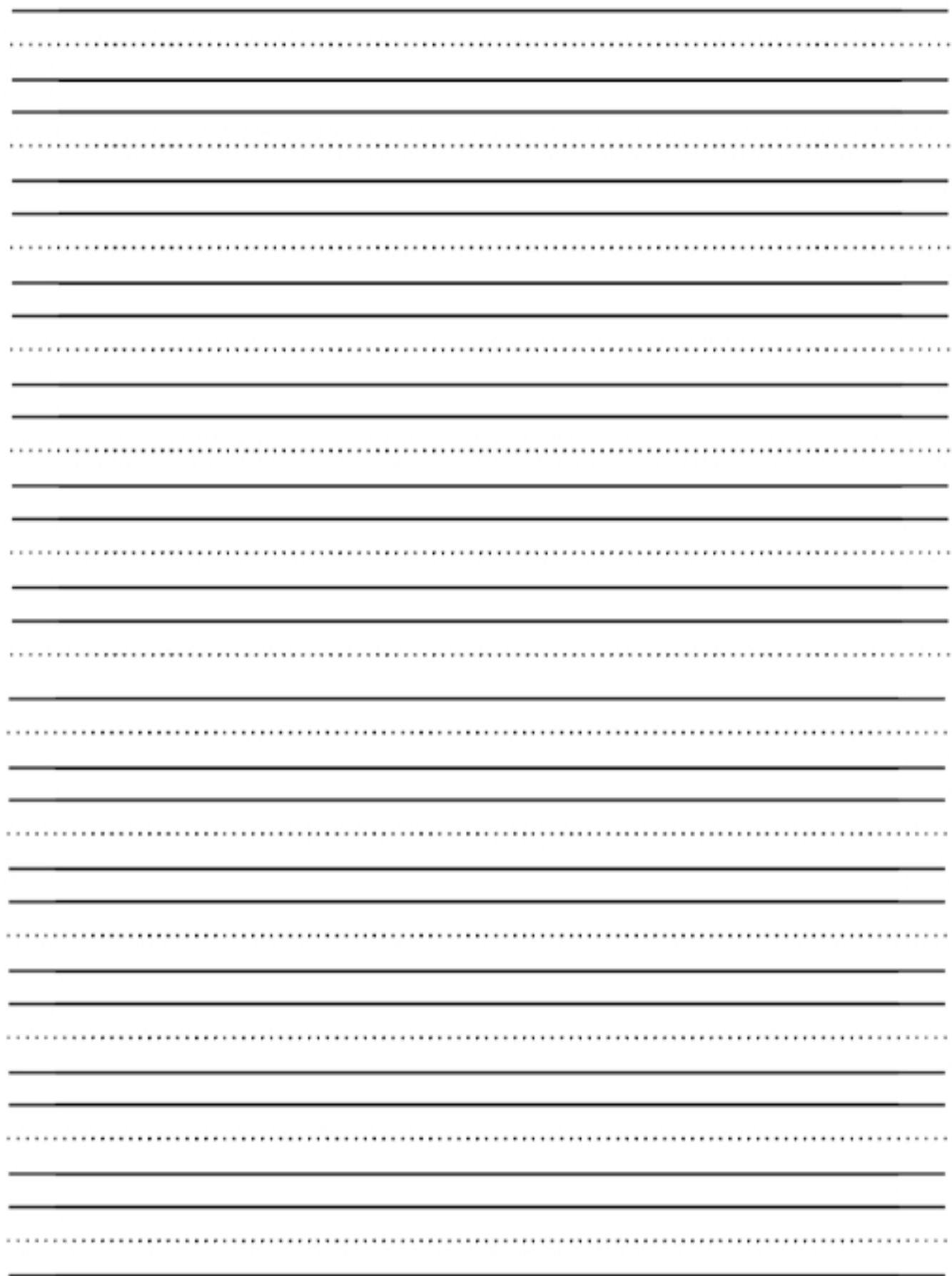
### **WRITER'S CHOICE**

Write your own silly story about a giant cookie! Be sure to have an introduction, a conclusion, and details. For additional fun, you could pick a different type of dessert and write an adventure about that!

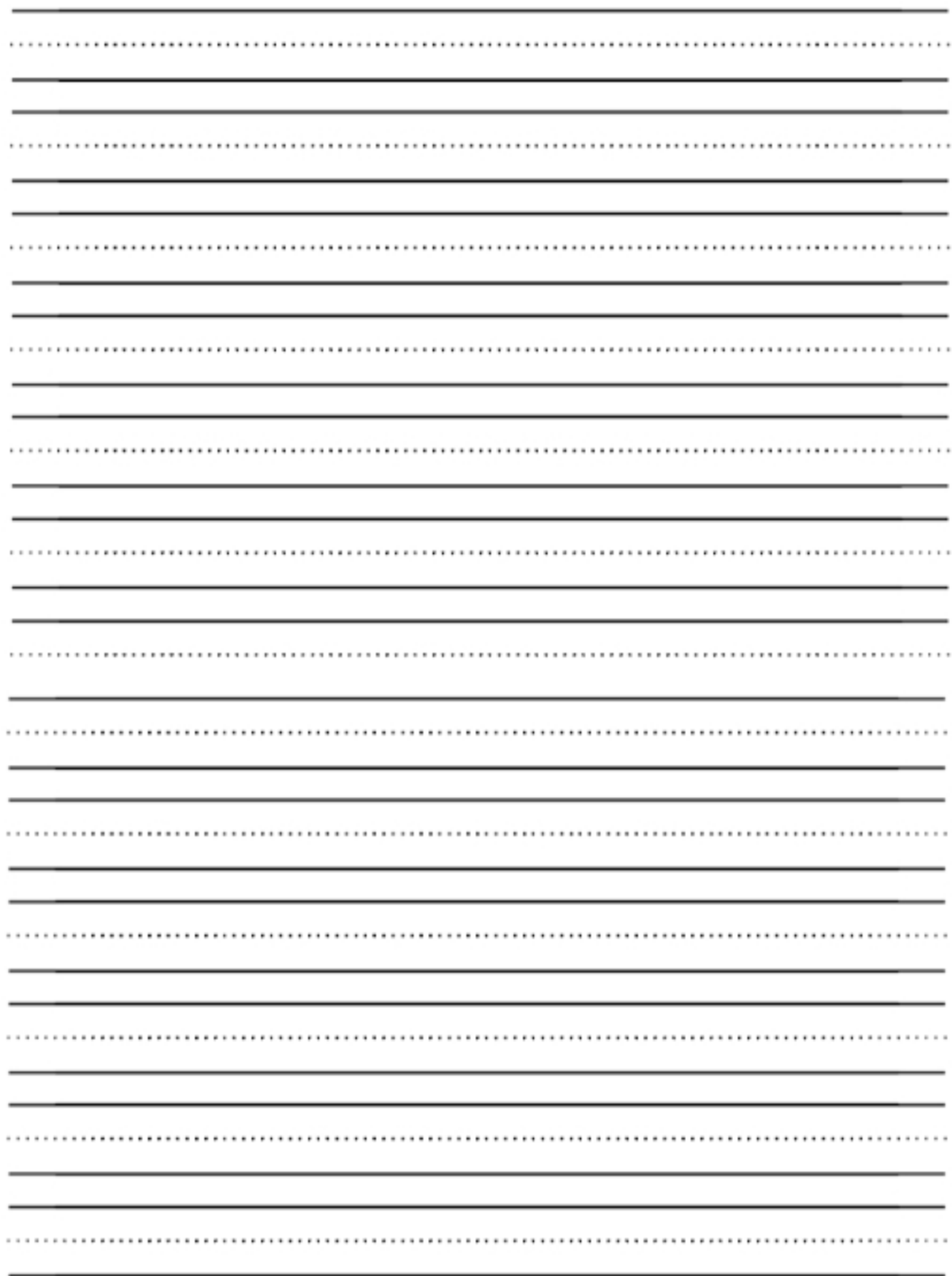
Listening, Speaking, Reading, and Writing are ways we communicate with each other. Do some additional research about these four skills and write your own informational piece about your findings.

Want to learn more about the first 13 colonies? Conduct some additional research on it? In a letter to a friend or family member, describe what you found out about the 13 colonies. For more information, watch the video at <https://bit.ly/3gsCeZQ>

Create a Prezi, PowerPoint, Poster, and/or infographic about something you learned from the reading selections. Include some vocabulary from the reading selections as well! Present what you learned to a family member.











# Four in a Row with Near Doubles

**Number of Players:** 2

**Materials:** Near Doubles cards, small counters

**Directions:** Take turns to turn over a Near Doubles card. Double the first addend and add one more. Find the sum on your side of the board and cover it with a counter. Once your counter has been placed it cannot be moved. Continue until one player has 4 counters in a row (vertically, horizontally, or diagonally).

Player One

21	27	25	23
37	31	35	29
41	23	33	39
23	29	25	21

Player Two

23	21	25	29
31	33	27	35
39	37	41	23
25	29	27	31

Four in a Row with Near Doubles Cards

Ver. 2

$$10+11$$

$$11+12$$

$$12+13$$

$$13+14$$

$$14+15$$

$$15+16$$

$$16+17$$

$$17+18$$

$$18+19$$

$$19+20$$

$$20+21$$

$$21+22$$

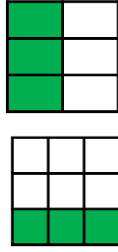
# Compare Fractions of a Whole

**Materials:** fraction cards showing two fractions

$$\frac{4}{8} \quad ? \quad \frac{3}{8}$$

1. Choose a fraction card. Represent both fractions using an area model or number line.
2. Compare the fractions using the symbols  $<$ ,  $>$ , or  $=$ .
3. Repeat with other cards.

**Example:**



$\frac{4}{6} > \frac{3}{6}$  because ninths are smaller than sixths.

4. Share your work with a classmate. Explain your thinking.

$$\frac{4}{8} \quad ? \quad \frac{4}{4}$$

$$\frac{2}{6} \quad ? \quad \frac{4}{6}$$

B.

$$4 \frac{1}{6}$$



$$2 \frac{1}{6}$$

A.

$$1 \frac{1}{4}$$



$$3 \frac{1}{4}$$

D.

$$1 \frac{1}{2}$$



$$2 \frac{1}{2}$$

C.

$$3 \frac{1}{8}$$



$$4 \frac{1}{8}$$



$$1 \frac{1}{6}$$



$$1 \frac{1}{8}$$

$$2 \frac{1}{4}$$



$$2 \frac{1}{6}$$

F.

$$4 \frac{1}{8}$$



$$4 \frac{1}{4}$$

$$2 \frac{1}{3}$$



$$2 \frac{1}{4}$$

H.

E.

G.

$$1 \frac{1}{3}$$



$$2 \frac{2}{6}$$

$$1 \frac{1}{2}$$



$$2 \frac{2}{4}$$

$$4 \frac{1}{4}$$



$$1 \frac{1}{1}$$

$$1 \frac{1}{1}$$



$$8 \frac{1}{8}$$

# Lesson 8: Binary Bracelets

## Overview

Binary is extremely important in the world of computers. The majority of computers today store all sorts of information in binary form. This lesson helps demonstrate how it is possible to take something from real life and translate it into a series of ons and offs.

## Purpose

In this lesson students will learn how information is represented in a way such that a computer can interpret and store it. When learning binary, students will have the opportunity to write codes and share them with peers as secret messages. This can then be related back to how computers read a program, translate it to binary, use the information in some way, then reply back in a way humans can understand. For example, when we type a sentence into a document then press save, a computer translates the sentence into binary, stores the information, then posts a message indicating the document has been saved.

## Agenda

- [Warm Up \(15 min\)](#)
  - [Vocabulary](#)
  - [Off and On](#)
- [Main Activity \(20 min\)](#)
  - [Binary Bracelets - Worksheet](#)
- [Wrap Up \(5 min\)](#)
  - [Flash Chat: What did we learn?](#)
  - [Journaling](#)
- [Assessment \(15 min\)](#)
- [Extended Learning](#)

## Teaching Guide

### Warm Up (15 min)

#### Vocabulary

This lesson has one new and important word:

Binary - Say it with me: Bye-nair-ee

A way of representing information using only two options

#### Off and On

- If you've written a short message on the board in binary, call the students' attention to it and ask if anyone knows what it is or what it means.

- Put the message aside and move on to prepping for the activity.
- You can start by asking the class if they have ever seen inside a computer.
  - What's in there?
  - This is a good place to actually show them the inside of a computer (or pictures of the inside of a computer).



- Wires carry information through the machine in the form of electricity.
  - The two options that a computer uses with respect to this electrical information are "off" and "on." Just like the lights in this room!
    - When computers represent information using only two options, it's called "Binary."
  - That theme of two options doesn't stop when the information gets to its destination.
- Computers also store information using binary.
  - Binary isn't always off and on.
    - Hard Disk Drives store information using magnetic positive and magnetic negative.
    - DVDs store information as either reflective or non-reflective.
  - How do you suppose we can convert real-life things that we want to store in a computer into binary?
    - Let's start with letters.
    - Use the Binary Bracelets - Worksheet to show how a computer might represent capital letters.
      - This is a good time to mention that each spot where you have a binary option is called a "binary digit" or "bit" for short.
      - Ask if anyone knows what a grouping of eight bits is called (it's a byte.)
      - Fun fact: A grouping of four bits is called a nibble.
      - Watch the Bits Versus Bytes - Student Video (~1 minute)

- Go over a few examples of converting letters into binary, then back.
- Afterward, write an encoded letter and give the class a few seconds to figure out what it is.
- When the class can figure out that encoded letter on their own, you can move on to the activity.

## Main Activity (20 min)

### Binary Bracelets - Worksheet

#### Lesson Tip

You know your classroom best. As the teacher, decide if students should do this individually or if students should work in pairs or small groups.

You do not need to cover the whole of binary, like counting and converting numbers back and forth from decimal. This lesson is intended to be a fun introduction to how computers store information, not a frustrating lesson in bases.

Directions:

- Find the first letter of your first name on the activity sheet.
- Fill in the squares of a bracelet to match the pattern of the squares next to the letter that you selected.
- Cut the bracelet out.
- Tape the bracelet around your wrist to wear it!
- Share your bracelet with your classmates to see if they can figure out your letter.

A	■□■ ■ ■ ■ ■ □	N	■□■ ■ □ □ □ ■
B	■□■ ■ ■ ■ □ ■	O	■□■ ■ □ □ □ □
C	■□■ ■ ■ ■ □ □	P	■□■ □ ■ ■ ■ ■
D	■□■ ■ □ ■ ■ ■	Q	■□■ □ ■ ■ ■ □
E	■□■ ■ ■ □ ■ □	R	■□■ □ ■ ■ □ ■
F	■□■ ■ ■ □ □ ■	S	■□■ □ ■ ■ □ □
G	■□■ ■ ■ □ □ □	T	■□■ □ ■ □ ■ ■
H	■□■ ■ □ ■ ■ ■	U	■□■ □ ■ □ □ □
I	■□■ ■ □ ■ ■ □	V	■□■ □ ■ □ □ ■
J	■□■ ■ □ ■ □ ■	W	■□■ □ ■ □ □ □
K	■□■ ■ □ ■ □ □	X	■□■ □ □ ■ ■ ■
L	■□■ ■ □ □ ■ ■	Y	■□■ □ □ ■ ■ □
M	■□■ ■ □ □ □ □	Z	■□■ □ □ ■ □ ■

## Lesson Tip

If your class has extra budget for materials, try doing this exercise using thread (or pipe cleaners) and beads to create the binary bracelets instead of pen and paper. You can provide any combination of two colors in beads to the students, but black and white tend to be easiest, given the way that the key is done.

After the activity, revisit the message that was on the board and see if your class can decypher it using what they've learned.

## Wrap Up (5 min)

### Flash Chat: What did we learn?

- What else do you think is represented as binary inside of a computer?
- How else might you represent binary instead of boxes that are filled or not filled?
- What was your favorite part about that activity?

## Journaling

Having students write about what they learned, why it's useful, and how they feel about it can help solidify any knowledge they obtained today and build a review sheet for them to look to in the future.

### *Journal Prompts:*

- What was today's lesson about?
- How did you feel during today's lesson?
- Use the activity worksheet to write out the rest of your name or your favorite word in binary.
- Imagine a world where we spoke in binary, saying "on" or "off", but nothing else. Draw two characters trying to talk to each other in binary.

## Assessment (15 min)

- Hand out the Binary Bracelets - Assessment and allow students to complete it independently after the instructions have been well explained.
- This should feel familiar, thanks to the previous activities.

## Extended Learning

Use these activities to enhance student learning. They can be used as outside of class activities or other enrichment.

### Binary Images

- There are several great resources on the web for taking this activity to the next level.
- If your students are interested in how images (or even music) can be represented as binary, you can find more details in Thinkersmith's [Binary Baubles](#).

# Binary Bracelets

Binary Decoder Key



Letter	Binary
A	■ □ ■ ■ ■ ■ ■ □
B	■ □ ■ ■ ■ ■ □ ■
C	■ □ ■ ■ ■ ■ □ □
D	■ □ ■ ■ ■ □ ■ ■
E	■ □ ■ ■ ■ □ ■ □
F	■ □ ■ ■ ■ □ □ ■
G	■ □ ■ ■ ■ □ □ □
H	■ □ ■ ■ □ ■ ■ ■
I	■ □ ■ ■ □ ■ ■ □
J	■ □ ■ ■ □ ■ □ ■
K	■ □ ■ ■ □ ■ □ □
L	■ □ ■ ■ □ □ ■ ■
M	■ □ ■ ■ □ □ ■ □

Letter	Binary
N	■ □ ■ ■ □ □ □ ■
O	■ □ ■ ■ □ □ □ □
P	■ □ ■ □ ■ ■ ■ ■
Q	■ □ ■ □ ■ ■ ■ □
R	■ □ ■ □ ■ ■ □ ■
S	■ □ ■ □ ■ ■ □ □
T	■ □ ■ □ ■ □ ■ ■
U	■ □ ■ □ ■ □ ■ □
V	■ □ ■ □ ■ □ □ ■
W	■ □ ■ □ ■ □ □ □
X	■ □ ■ □ □ ■ ■ ■
Y	■ □ ■ □ □ ■ ■ □
Z	■ □ ■ □ □ ■ □ ■

Find the first letter of your first name.

Fill in the squares of the bracelet below to match the pattern of the squares next to the letter that you found.

Cut the bracelet out and tape it around your wrist to wear it!

Name(s) \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

# Binary Bracelets

## Binary Decoder Key



Letter	Binary
A	■ □ ■ ■ ■ ■ □
B	■ □ ■ ■ ■ ■ □ ■
C	■ □ ■ ■ ■ ■ □ □
D	■ □ ■ ■ ■ □ ■ ■
E	■ □ ■ ■ ■ □ ■ □
F	■ □ ■ ■ ■ □ □ ■
G	■ □ ■ ■ ■ □ □ □
H	■ □ ■ ■ □ ■ ■ ■
I	■ □ ■ ■ □ ■ ■ □
J	■ □ ■ ■ □ ■ □ ■
K	■ □ ■ ■ □ ■ □ □
L	■ □ ■ ■ □ □ ■ ■
M	■ □ ■ ■ □ □ ■ □

Letter	Binary
N	■ □ ■ ■ □ □ □ ■
O	■ □ ■ ■ □ □ □ □
P	■ □ ■ □ ■ ■ ■ ■
Q	■ □ ■ □ ■ ■ ■ □
R	■ □ ■ □ ■ ■ □ ■
S	■ □ ■ □ ■ ■ □ □
T	■ □ ■ □ ■ □ ■ ■
U	■ □ ■ □ ■ □ ■ □
V	■ □ ■ □ ■ □ □ ■
W	■ □ ■ □ ■ □ □ □
X	■ □ ■ □ □ ■ ■ ■
Y	■ □ ■ □ □ ■ ■ □
Z	■ □ ■ □ □ ■ □ ■

Can you figure out what the message says?

[illegible]

Write the message here!

[illegible]