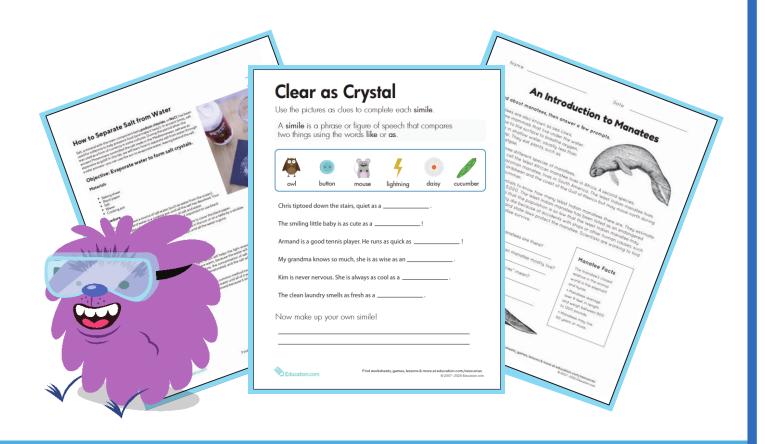
Week 4 & 5

 $\mathbf{3}^{\mathrm{rd}}$ Grade

Independent Study Packet

Education.com



5 MORE Days of
Independent Activities in
Reading, Writing,
Math, Science, and Social Studies

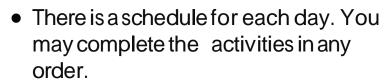
Helpful Hints for Students and Families

Materials You Will Need:

- Pencils
- Extra paper or a notebook/journal. (You may put everything into one notebook if you like.)
- Colored pencils, markers, or crayons for some of the activities



Directions & Tips



Make sure to plan your time so that you don't let things pile up at the end.

 Read the directions carefully before completing each activity.



Reading Log

- 1. Read a fiction or nonfiction book on your own or with a grown-up.
- 2. Put your name and the title of the book at the top of a new page.
- 3. Choose one of the prompts from the chart and write the letter at the top of the page in the title of the book.
- 4. Write 3–5 sentences about your book. Remember, not all of the questions make sense for every book!



a. What details in the text describe one of the characters? Draw a sketch of the character.	b. Which words in the book were tricky? What strategy did you use to help you understand them?	c. What lesson is the author trying to teach the reader? How do you know?
d. What is your favorite part of the text? Why?	e. What is the most important part of the story? Why?	f. What did the author want you to learn? How do you know?
g. How does the main character feel in this book? How do they change?	h. What is the most interesting part of the text? Why?	i. What are three facts you learned from reading this book?
j. How do the pictures in the text help you understand what you are reading? Give an example.	k. Where does the story take place (the setting)? How does the author describe it?	I. What information was surprising in the text? Why?
m. What is the character's main problem, and how did they solve it? How would you have solved it?	n. How is this book like another you have read? How is it different?	o. What was a major event in the story? Why was it important to the story?



Name:	Date:	



Read the informational text. Next, use a dictionary to figure out the meaning of the underlined words. Write what the words mean and why the author used them in the spaces below. Finally, explain why the author wrote this text.

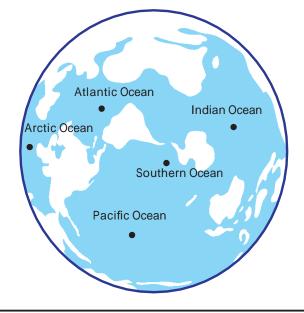
The ocean is important to all living things. More than 70 **percent** of Earth's surface is covered by the ocean. If you saw Earth from outer space, it would look similar to a blue marble. That's a lot of water! The ocean is the Earth's largest **habitat**.

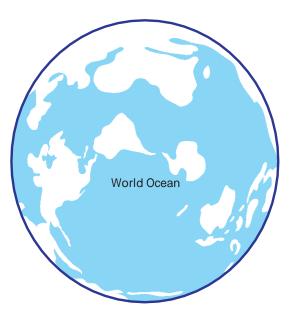
There is only one World Ocean and five ocean basins. The water in the World Ocean flows between the ocean basins, just like air moves around on land.

About one million types of animals live in the ocean. Different animals live in different parts of the ocean depending on what they need to stay alive.

It's important that humans take care of the ocean so it stays **healthy** for years to come. One way to help the ocean is to pick up trash on the beach.

The ocean is <u>important</u> to all living things. Over <u>half</u> of the Earth's surface is covered by the ocean. Scientists have only explored part of the ocean. There is still so much left to explore!





	Name:	Date:
1.		means
	This word is	important to the main idea of the text because
2.	The word _	means
	This word is	important to the main idea of the text because
3.	The word _	means
		important to the main idea of the text because
4.	The word _	means
	This word is	important to the main idea of the text because
5.	The word _	means
	This word is	important to the main idea of the text because
	•	n words, explain what the topic of the text is. Can you figure out the of the text? What did the author want you to learn? How do you



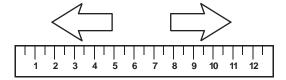
Name:

Sentence Stretching

Prepositions and prepositional phrases can be used to give more information about our topic. Our sentences can be longer and more specific!

Use prepositions from the word bank to extend the sentences below and provide more details. Write each new sentence on the matching line. Look at the example below to get started.

Word Bank		
before	above	toward
onto	during	between



Example:

Starting Sentence: Scott sat in the car.

New Sentence: Scott sat between his two sisters throughout the long car ride.

1. Starting Sentence: Lacey's dog jumped.

New Sentence:

2. Starting Sentence: Look in the cabinet.

New Sentence:

3. Starting Sentence: On the screen I saw an announcement that you shouldn't talk.

New Sentence:

4. Starting Sentence: It is important to buy the airplane tickets.

New Sentence:

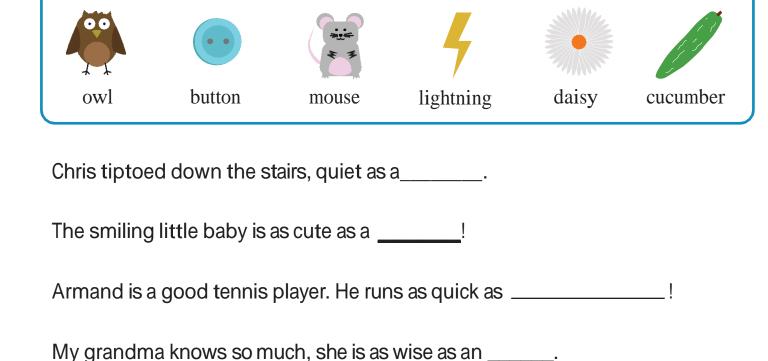
5. Starting Sentence: Jessie ran.

New Sentence: _____

Clear as Crystal

Use the pictures as clues to complete each simile.

A simile is a phrase or figure of speech that compares two things using the words like or as.



The clean laundry smells as fresh as a _____.

Kim is never nervous. She is always as cool as a _____.

Now make up your own simile!



Name: _____

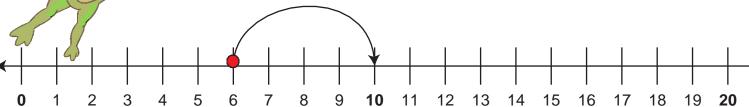
Date:_____

Jump - A - Round

200

Rounding numbers is like jumping to the nearest ten or nearest hundred.

When the number has a 1, 2, 3, or 4 in the <u>ones</u> place, it is rounded DOWN to the nearest ten. When the number has a 5, 6, 7, 8 or 9 in the <u>ones</u> place, it is rounded UP to the nearest ten. For example, 6 can be rounded up to 10.



Round each number to the nearest ten.

When the number has a 1, 2, 3, or 4 in the <u>tens</u> place, it is rounded DOWN to the nearest hundred. When the number has a 5, 6, 7, 8 or 9 in the <u>tens</u> place, it is rounded UP to the nearest hundred. For example, 128 can be rounded down to 100.



Round each number to the nearest hundred.

100 110 120 130 140 150 160 170 180 190 **200** 210 220 230 240 250 260 270 280 290 **300**

	A Series of Events: The Water Cycle Sequence is the order in which something is done. Use time order words			
to help you understand the order of events. Some examples				
	→	• first, second, third •then, later, soon after	• before, after, next • last, finally, eventually	\bigcirc

Doto

Directions: Read the passage below.

Mama:

The Water Cycle

Have you ever wondered what happens to puddles after a big rainstorm? Each bit of precipitation in our world goes through the water cycle. The water cycle is the movement of all the water on Earth. The water in, on, and above the Earth is always moving and changing states. It changes from liquid to vapor. It changes from vapor to ice, and back again. The cycle continually repeats itself.

First, the sun heats up the Earth's surface and draws water into the atmosphere. This process is called evaporation. This is what makes puddles disappear! The water evaporates, changing from a liquid into a gas.

Then, as the water vapor rises into the sky, it cools down. It turns back into a liquid when it is in the clouds. This part of the water cycle is called condensation.

After the clouds become heavy, precipitation falls. It falls as rain, snow, hail, or sleet. Sometimes precipitation can fall in heavy amounts. This can cause flooding and problems for people and animals on Earth. Mountainous areas, places that typically have snow, experience melting when the temperatures rise. The snowmelt runs down toward sea level.

As the runoff reaches lower elevations, it can end up in lakes and rivers, eventually leading to the ocean. This part of the process is called collection. Water is collected in different places on the Earth. It can be absorbed back into trees and plants. It can return to lakes, rivers, and the ocean. The water can freeze into snow, ice, or glaciers, depending on the climate.

The water cycle is a system in nature that is constantly moving. The steps always occur in the same order, and the cycle always repeats itself.

Directions: Complete the chart with details from the text that show the correct sequence of events.

First,		
	+	
Next		
	+	
After that,		
	+	
Then,		
	+	
Finally,		



Run-On Sentences

A **run-on sentence** is two complete sentences that have been joined together in the wrong way, using incorrect punctuation or no punctuation.

Incorrect run-on sentence: I gave Tom my jacket, it was too small for me.

Correct: I gave Tom my jacket. It was too small for me.

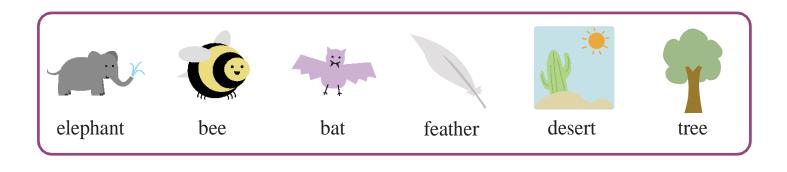
Read each sentence. If it is a complete sentence, put a check (\checkmark) beside it. If it is a run-on sentence, rewrite it as two complete sentences on the lines provided. I.The cat followed me home, it looked hungry. 2. I gave the cat some tuna and a bowl of water. 3. I wanted to keep the cat, Mom shook her head. 4. The cat had a collar and tags, it already had a home. 5. Mom called the number on the tag, a nice lady answered. _____ 6. The lady came to our house, she thanked me for finding her cat. 7. I'm glad we helped the lady get her cat back.



Easy as Pie

Use the pictures as clues to complete each simile.

A simile is a phrase or figure of speech that compares two things using the words like or as.



I'm so thirsty, my mouth is as dry as a
Without her glasses on, Judy felt as blind as a
The baby kitten is as light as a
I was as busy as aas I worked to finish my homework.
My older brother is as tall as a
If my dog keeps eating so much, he'll become as big as an
Now make up your own simile!



How the Whale got his Throat

Once upon a time there was a giant Whale who lived deep in the sea. He was always hungry, and more than anything he

loved to eat fish of all different kinds: mackerel, salmon, tuna, crab, octopus, squid, eel and more. He ate and ate, until there was only one fish left in the whole sea!

Luckily, the Last Fish in the sea was a clever one. Before the hungry Whale could chase him, the Last Fish took a bow and asked, "Oh, mighty Whale, have you ever tasted man?"

"No," said the Whale, who was a bit confused, "What is it like?"

"Oh, it's delicious," said the clever Last Fish, "And it will really fill you up. I saw one just the other day sitting on a raft in the middle of the sea. He is a shipwrecked sailor. Go and find him!"

So the Whale swam and swam, until he came upon a raggedy sailor, alone on a wooden raft. The hungry Whale crept up, opened his mouth wide and swallowed the sailor, raft and all. But it was not as the clever Last Fish had said—this man was not delicious at all! He kicked and danced, pranced and punched at the inside of the Whale's belly.

Annoyed, the Whale swam around trying to find that clever Last Fish, but he'd already made his escape. "This man is making me hiccup," the Whale said to himself, "What should I do?" Suddenly, from inside his belly the Whale heard a man's yell: "Take me home, to Albion, or I'll kick as hard as ever!"

The poor, hiccupping Whale had no choice but to swim the man home. After he escaped, the man lived happily ever after. And so did the Whale, but he had forgotten about the raft that was lodged in his throat. It was like a permanent sift! From then on, it prevented the Whale from eating anything except tiny fish.

And that was how the Whale got his throat.

Activities

Put the events in the order in which they happened.	
#	Order
A. The Whale met the Last Fish.	
B. The Whale spit out the man.	
C. The man's raft was stuck in the Whale's throat.	
D. The Whale ate almost all the fish in the sea.	
E. The Whale swallowed the sailor.	
Who asked the Whale if he had tasted a man?	
Who danced and kicked in the Whale's stomach?	
Who swam the sailor home?	_
At the end of the story, who could eat only small fish	ı?

WORDSEARCH

D T Y Z J U Z Q U V N M E D	
IEFVDBBBNOAAJE	
UEYGYOEJERJOGP	WORD LIST
WO XO U O T T G Z Z S I A F	Albion
V A CN X Q D G S G G C C S	Annoyed
D P L E N C L E V E R A S D	Clever
J R W B D A O H L K U I E R	Confused
D E H U I ZA O R I E I D P Q	Delicious
V A Q U O KE G E C R I X D	Escaped
E L I U M N R E J R I H Q Z	Hiccup
N E D H H O U HS K I O S I T	Prevented
D E S U F N O CM F Y U D E	Raggedy
C U X D B T W B B T I I S D	Whale
L K C E R Y K U H DY G D G	
A X N H U N Y D J WMB G O Q	
F F O A Z P D D N E U	



Informational Writing: Strong Support

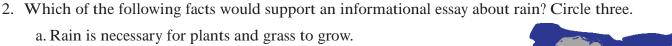
What is Informational Writing?

- •The purpose of this genre of writing is to inform the reader about a topic.
- •It uses information (facts and details) to teach about the topic.

*Informational writing does not include opinions or statements to convince others to do or believe something.

Directions: Circle the facts that would best support a topic in an informational essay.

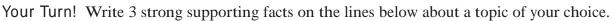
- 1. Which of the following facts would support an informational essay about tornadoes? Circle three.
 - a. A tornado is a violent weather event.
 - b. I think tornadoes are really scary storms.
 - Tornados are sometimes called twisters.
 - d. It is exciting to see a strong and powerful tornado in the sky.
 - e. The region of the United States that has the most tornadoes is called Tornado Alley.

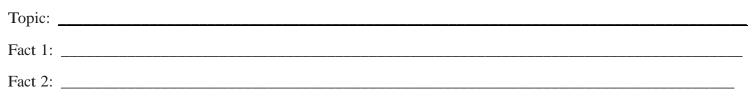


- a. Rain is necessary for plants and grass to grow.
- b. Rain usually happens as either a drizzle or a shower.
- c. Rain makes me want to stay in bed all day and sleep.
- d. Rain can contain dirt, dust, grass, and even chemicals.
- e. It is fun to jump in the puddles and run in the mud after rain falls.



- 3. Which of the following facts would support an informational essay about flowers? Circle three.
 - a. Without sunlight and water, flowers will die.
 - b. All houses should have gardens full of flowers in the front.
 - c. The most beautiful flowers are those that bloom in the spring.
 - d. Flowers get their food from sunlight, water, and minerals in the soil.
 - e. Flowers take in carbon dioxide, which is what humans release when we breathe.
- 4. Which of the following facts would support an informational essay about the sun? Circle three.
 - a. Light from the sun reaches the Earth in about eight minutes.
 - b. I enjoy the warmth of the sun in the spring and summer months.
 - c. The sun is a star that is found at the center of the Solar System.
 - d. You should wear sunscreen and light colored clothing when outside.
 - e. The sun's diameter is about 110 times wider than the Earth's diameter.





Name:

Simile or Metaphor?







A metaphor compares two different things, usually with the word "is" A simile also compares two different things but uses words such as "like" or "as." Look at each of the following sentences and answer the questions below.

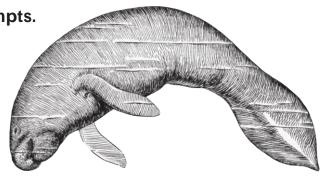
Example:	Our class is a buzzing beehive today.		
This is a:		This means:	
(simile/metaphor)		A) Our class is especially busy today.	
		B) A bee got into our classroom.	
1. The assembly was like watching grass grow.			
This is a:		This means:	
	(simile/metaphor)	A) Not very much happened at the	
		assembly.	
		B) The assembly was green.	
2. His hands were as cold as ice.			
This is a:		This means:	
	(simile/metaphor)	A) His hands were wet.	
		B) His hands were extremely cold.	
3. The kitter	n is a fluffy cloud.		
This is a:		This means:	
	(simile/metaphor)	A) The kitten is furry and white.	
		B) The kitten sleeps all day.	
4 11			
	ngry as a bear.	T I.:	
This is a:	(cimilo/motophor)	This means:	
	(simile/metaphor)	A) I'm not very hungry.	
		B) I'm really hungry.	



An Introduction to Manatees

Read about manatees, then answer a few prompts.

Manatees are also known as sea cows.
They are mammals that live under the water.
They rise to the surface to breathe oxygen.
They live in shallow water, usually less than
7 feet deep. They eat plants, such as
grass and algae.



There are three different species of manatees. One species called the West African manatee lives in Africa. A second species, called the Amazonian manatee, lives in South America. The West Indian manatee lives mostly in the Caribbean and the coast of the Gulf of Mexico but may move north during the spring and summer.

It is hard for scientists to know how many West Indian manatees there are. They estimate between 2,000 to 5,000. The West Indian manatee has been listed as an endangered species. This means that the population is so low that the West Indian manatee may become extinct. Many die because of accidents with ships or other human causes, such as pollution. Federal and state laws protect the manatee. Scientists are working to find ways to help the manatee survive.

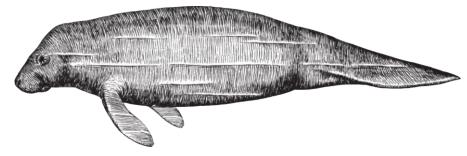
Questions

1. How many species of manatees are there?				
2. Where does the West Indian manatee mostly li	ve?			
3. What does "endangered species" mean?	:			
4 . What do manatees eat?				

Manatee Facts

The manatee's closest relative in the animal world is the elephant and hyrax.

- Manatees average over 9 feet in length and weigh between 800 to 1200 pounds.
- Manatees may live60 years or more.



Monster Glyph







Directions: On a separate sheet of paper, create your unique monster by following these directions.

Shape of head	Draw an oval head if you ride the bus to school. Draw an octagonal head if you ride in a car to school. Draw a rectangular head if you walk or ride a bike or scooter to school.
Shape of body	Draw your monster's body in the shape of an animal if you have 1 syllable in your last name. Draw your monster's body in the shape of a robot if you have 2 syllables in your last name. Draw your monster's body in the shape of food if you have 3 or more syllables in your last name.
Amount of hair	Give your monster curly hair if you prefer scary movies. Give your monster spiky hair if you prefer funny movies. Give your monster no hair if you prefer action movies.
Shape of mouth	Draw your monster's mouth in the shape of a triangle if your age is 2 x 4. Draw your monster's mouth in the shape of a pentagon if your age is 3 x 3. Draw your monster's mouth in the shape of a rhombus if your age is 3 + 4. Draw your monster's mouth in the shape of an arrow if your age is 4 + 6.
# of eyes	Your age + 2.
# of legs	Number of letters in your rst name x 3.
# of arms	Number of letters in your last name x 2.
# of teeth	Number of teachers you have x 6.

Find your monster's name. Use the rst letter of your name to nd your monster's rst name. Then use the rst letter of the month you were born to nd your monster's last name.

A - Alien	F- Shadowy	K - Howling	P-Scary	U - Phantom
B - Costume	G - Pumpkin	L - Vampire	Q - Hair-raising	V - Magic
C - Bone	H - Spooky	M - Potion	R- Nightmare	W - Goblin
D - Fright	I - Foggy	N - Wicked	S- Haunt	X - Ghost
E-Terrifying	J- Mysterious	O - Gravestone	T - Witch	Y - Superhero
				Z - Horrible

My monster's name: The Answers will vary.

Learning About the Ocean

Directions:

Underline or highlight the main idea in the text. Look back at the text to complete the sentences at the bottom of the page.

The ocean is important to all living things. More than 70 percent of Earth's surface is covered by oceans. If you saw Earth from outer space, it would look similar to a blue marble. That's a lot of water! The ocean is the Earth's largest habitat.



There is only one world ocean and five ocean basins. The water in the world ocean flows between the ocean basins, just like air moves around on land.

About one million types of animals live in the ocean. Different animals live in different parts of the ocean depending on what they need to stay alive.

It's important that humans take care of the ocean so it stays healthy for years to come. One way to help the ocean is to pick up trash on the beach.

The ocean is important to all living things. Over half of the Earth's surface is covered by the ocean. Scientists have only explored part of the ocean. There is still so much left to explore!

The topic of the text is about learning about the ocean.

The main idea of the text is the importance of ocean to all living things.

Key Detail #1	Key Detail #2	Key Detail #3



The Twisted Ankle

Directions: As you read the passage, <u>underline</u> the two **similes**, then answer the questions below.



Ivan and I jogged slowly; Mala zoomed past us like a race car speeding around a curve. As she sped by, I tripped over a rock and fell. "Ouch!" I yelled. "I think my ankle is broken!" Mr. Lee came over to help me up. "I don't think it's broken," he said. "Look, you can walk on it." I still wanted an ice pack, so I leaned on my friends to hop like a one-legged rabbit to the school nurse.

- 1. Which is the first simile?
- A) As she sped by, I tripped over a rock and fell.
- B) "Ouch!" I yelled. "I think my ankle is broken!"
- C) Mala zoomed past us like a race car speeding around a curve.

- 2. What is the meaning of the first simile?
- A) Mala ran very fast.
- B) The narrator compares his/ her ankle to something broken.
- C) The narrator fell down like a rock.
- 3. Which is the second simile?
- A) Mr. Lee came over to help me up.
- B) to hop like a one-legged rabbit
- C) I still wanted an ice pack.

Opinion: Why do you think the author included the second simile?

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• 2	Education.com				

More Multiplication Comparisons



Name: Date:	
Name.	

Directions: Test your multiplication skills by writing in the correct symbol: >, < or =.

1.	2.	3.
13 x 0 [] 2 x 1	12 x 5 [] 10 x 6	5 x 5 [
4.	5.	6.
12 x 3 [] 6 x 6	4 x 3 [] 5 x 2	6 x 5 [] 7 x 3
7.	8.	9.
6 x 9 [] 7 x 8	12 x 4 [] 9 x 5	8 x 3 [
10.	11.	12.
8 x 4 [] 6 x 6	5 x 4 [] 9 x 2	13 x 0 2 x 1
13.	14.	15.
9 x 5 [] 7 x 8	3 x 3 [] 4 x 2	11 x 6 7 x 9
16.	17.	18.
6 x 3 [] 4 x 4	5 x 2 [] 7 x 1	7 x 7 [
19.	20.	21.
10 x 5 [7 x 4 [] 14 x 2	9 x 4 [] 5 x 8

$\left(\mathsf{X}\right)$

Multiplication Practice

Greater Than, Less Than or Equal To

Test your multiplication skills by writing in the correct symbol: >, < \overrightarrow{or} =

1.

2.

3.

4.

9 x 5		7 x 8	8

5.

6.

7.

8 x 4	6 x 6
	 ,

8.

9

10.

11.

12.

8 x 3 () 6 x	4
---------------	---

13.

14.

15.

16.

17.

18.

19.

20.

21.



NONFICTION TEXT FEATURES MARTIN LUTHER KING, JR.

Text Features help a reader navigate a text by offering more information about it.

Examples: illustrations, photographs, captions, maps, charts, graphs, headings, tables of contents.

Directions: Read the passage below, then answer the questions on the following page.

Martin Luther King, Jr. is famous for his role in the civil rights movement. He believed that everyone should be equal. He worked hard for that. He fought against discrimination. Discrimination is when a person or group of people are treated differently.

Martin Luther King, Jr. was born in Atlanta, Georgia, in 1929. He grew up in a time when things were not fair for everyone. The laws said that African Americans did not have the same rights as white people. There were separate schools for African American kids and white kids. They could not go to the same schools. Restaurants also had rules that separated African American people and white people.

Beliefs and Actions

King believed that African Americans should have the same rights as white people. He believed that people should be treated equally, no matter what color skin they have.

He believed in protests and resistance. He did not believe that violence was the answer. He knew that it was important to stay peaceful so people would listen. Martin Luther King, Jr. boycotted. He refused to buy products or services from places that did not treat him fairly. He marched. His marches made people think about discrimination.

March on Washington

In 1963, there was a civil rights march on Washington, D.C., called the March on Washington for Jobs and Freedom. King became very well-known after this event. King made a famous speech at this march. It is called the "I Have A Dream" speech. Around 250,000 people marched and heard his speech.

In the speech, he spoke about racism. He wanted it to end. Racism is the poor treatment and violence against people because of their race. Martin Luther King, Jr. talked about things being better for African American people.

Martin Luther King won the Nobel Peace Prize in 1964. That same year, the Civil Rights Act was passed. It banned many types of discrimination. Martin Luther King, Jr. worked hard to bring about change in the United States. Today, people still work for the equality he spoke about.



MARTIN LUTHER KING, JR. QUICK FACTS:

- MLK is the nickname given to Martin Luther King, Jr.
- King graduated from high school at the age of 15.
- King led the Montgomery Bus Boycott in 1955.
- His house was bombed in 1956 by people who disagreed with his civil rights work.
- In 1963, King was arrested for protesting in Alabama.
- King was assassinated in Memphis in 1968.

MARCH ON WASHINGTON



The March on Washington was in the nation's capital, Washington, D.C.



Name	Date	_
NONFICTION 1	TEXT FEATURES	
MADTIN	LUTHER KING, JR.	
IVIANIIIV	LUTAEN KINU. JN.	

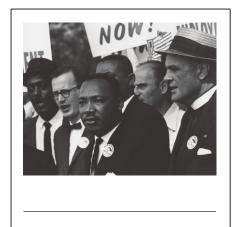
TEXT FEATURES help a reader navigate a text by offering more information about it.

EXAMPLES: illustrations, photographs, captions, maps, charts, graphs, headings, tables of contents.

Directions: Answer the questions by writing complete sentences.

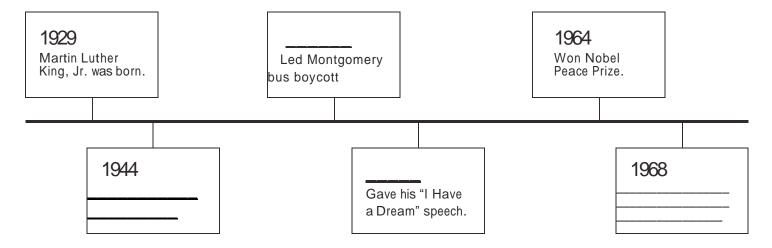
Part 1:

- 1. What information does the sidebar show?
- 2. Write a caption to accompany this image of Martin Luther King, Jr. ----
- 3. What do the headings tell the reader?



Part 2:

directions: Use the passage and sidebar to fill in the missing information on the timeline below.





Name		
INAIIIE		

Date _____

Martin Luther King Jr. Cut-and-Paste Timeline

Directions: Read the passage below. Then cut the events and place them in the correct order on the timeline.

Martin Luther King Jr. was born on January 15th, 1929. He was born in Atlanta, Georgia. At that time, the country was segregated. Segregation is when people are separated according to groups, like racial groups. Martin was not allowed to go to the same school as white kids. He was not allowed to sit near them at restaurants. He did not like segregation, and he wanted to see a change. He became a leader.

One way that he was a leader was during the Montgomery Bus Boycott. In December of 1955, the boycott began. A boycott is when people refuse to buy or use something, or go somewhere. The purpose of a boycott is to protest, or ask for something to change. This boycott began when Rosa Parks refused to give up her seat to a white person on a bus. Dr. Martin Luther King Jr. helped organize the boycott.

Martin Luther King Jr. is known for his "I Have a Dream" speech. It was made in 1963. He was at the "March on Washington for Jobs and Freedom" where people wanted to show support for equal rights. They wanted jobs and freedom. His speech gave people hope. The march was successful. In 1964, the Civil Rights Act was passed. The law said that there would be no more racial segregation.

In 1968, Martin Luther King Jr. went to Memphis, Tennessee, to help workers who wanted changes in their jobs. While he was there, he was shot and killed. The person who killed him did not like Martin Luther King Jr.'s message.

Martin Luther King Jr. was an important leader in the United States. People all over the country were sad when he died. Now, we celebrate Dr. King in January each year. This holiday gives us the chance to honor his hard work for civil rights.

Martin Luther King Jr. gave his "I Have a Dream" speech.

1963

1968

Martin Luther King Jr. was shot and killed in Memphis, Tennessee. 1929

Martin Luther King Jr. was born in Atlanta, Georgia. 1955

Martin Luther King Jr. led the Montgomery Bus Boycott.

Animals of the Sea

Water covers over seventy percent of our planet, and billions of fascinating animals thrive in the oceans and seas. There is a whole world beneath the water's surface filled with weird and wonderful wildlife that many of us may never see.



WORD SEARCH

Words may be horizontal, vertical, backwards, or diagonal

S	0	С	Т	0	P	U	S	D	E
S	M	D	I	U	Q	S	Ε	0	L
Ε	S	0	Ε	Т	Н	С	L	L	Т
A	T	S	R	Q	S	R	A	Р	R
Н	A	Н	L	D	I	A	Н	Н	U
0	R	A	A	Ε	F	В	M	I	Т
R	F	R	R	А	M	I	I	N	A
S	I	K	0	A	0	R	S	I	E
E	S	0	С	I	L	Н	Н	Н	S
I	Н	Н	0	R	В	L	E	0	Т

Blowfish

Crab

Shark

Seahorse

Coral

Starfish

Squid

Octopus

Whale

Dolphin

Sea Turtle

Swordfish

FUN FACTS

The male seahorse carries the eggs, and "gives birth" to the live babies.

You are twice as likely to be struck by

lightning than to be bitten by a shark.

An octopus has no bones.

SEA ANIMAL MATCH UP

Draw a line from the sea animal to its name.



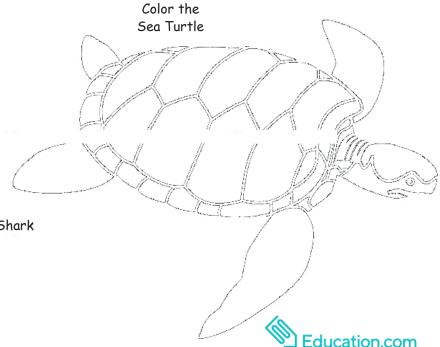
Orca

Blowfish

Eel

Great White Shark

Seahorse

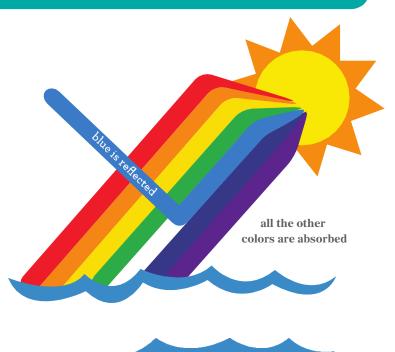


Why is the ocean blue?

The ocean appears blue to us because of the light from the sun.

We often think that the sun's light just allows us to see, but without light, colors wouldn't even exist!

What we see as white light from the sun is actually a combination of all the colors of the rainbow. Try and imagine red, orange, yellow, green, blue, indigo and violet rays of light streaming from the sun. Objects either absorb or reflect these rays.



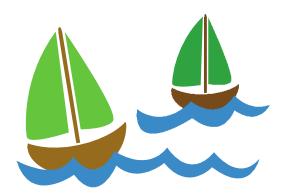
QUESTION & ANSWER:

What colors make up the light from the sun?

What color/s does the ocean reflect?

What color/s does the ocean absorb?

When the sun's light hits the ocean, the red, orange, yellow, green, indigo and violet rays are absorbed so that we can't see them! Only the blue light is reflected. The ocean itself isn't really blue; we're just seeing the reflected blue light



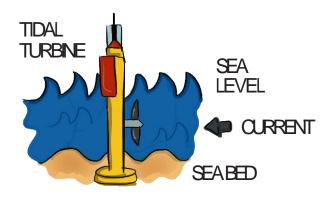




OCEAN RESOURCES

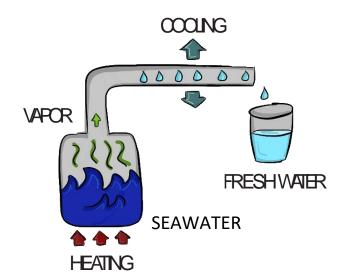


The ocean is one of our greatest resources. The world's oceans provide many useful items and functions for not only people who live on the coast, but all people. The first thing that comes to mind when we think about sea resources is food, but the sea provides many other kinds of resources as well.



The world's oceans provide energy in the form of electricity from wave action. As waves crash on the beach they drive a turbine, a kind of engine, which produces electricity that we can use in our homes and buildings.

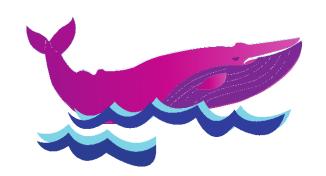
The world's oceans are providing water for people who live in dry places. This is mostly true in other countries where there isn't a lot of fresh water available. Salty sea water must have the salt removed before people can drink it. Huge machines in factories are necessary to make this happen. It's called desalination.





One of the most important ways we use the world's oceans and seas is transportation. It's not something we think about a lot, but it's true. Many of the products you use in your home—TVs, clothes, and even some kinds of food—were made elsewhere and shipped to the United States on large cargo vessels.

MORE IMPORTANT EVEN THAN TRANSPORTATION, HOWEVER, IS THE FOOD RESOURCE THAT THE SEAS PROVIDE. BELOW, LIST AT LEAST 10 KINDS OF FOOD THAT COME FROM THE SEA:



1.	
•	
7.	
_	
-	
9.	
0.	
	What's your favorite seafood? Draw it below.

How to Separate Salt from Water

Salt, a mineral with the main component being **sodium chloride**, or **NaCI**, has been used for millennia to help preserve food (and make it tasty!). In ancient times, salt was used as a form of currency in some cultures. During the period when the ancient Phoenicians controlled the salt trade in the Mediterranean, salt was as expensive as gold! In this lab, we will learn how to separate salt from water through a solar process—you can use the sun to evaporate water, leaving behind the salt.

Objective: Evaporate water to form salt crystals.

Materials:

- Baking sheet
- Black paper
- Salt
- Water
- Cooking pot

Procedure:

- 1. If you do not have a source of salt water (such as water from the ocean), then mix salt and water in a cooking pot until all the salt has dissolved. Your goal is to make a fairy concentrated solution of salt and water.
- 2. Lay the black paper on the baking sheet. Why is it important to use black paper?
- 3. Pour the salt water into the baking sheet, making sure to cover the black paper.
- 4. Set the baking sheet somewhere warm, like outside in the sun or on a table by a window. 5. Record your observations over a number of days until all the water is gone.

Results

Salt crystals will be left over once all the water has evaporated.

Why?

The color black absorbs all frequencies of visible light, which will helps the light energize the water molecules which evaporate when they get hot. It is important that the pan is somewhere warm, because the water will evaporate into the air more quickly. As the water evaporates, the salt doesn't leave with it! Therefore, the concentration of salt in the water left behind increases. Eventually, the concentration gets so high that the water becomes supersaturated, and the salt will begin to recrystallize into a solid. When all of the water is gone, you will have salt!

The same process is done on a very large scale, worldwide. A common method involves allowing seawater to flow into shallow flat beds through channels that are then sealed off. The sun heats the water until all of it evaporates, leaving mountains of salt behind. The salt is then collected and cleaned. Salt's a particularly important mineral because it isn't just used for cooking—it's an essential ingredient in agriculture, science, and countless industrial products.



Optional

Design Challenge

Making a Water Slide



Have your child kick off their summer vacation by making a miniature water slide! Using a few household supplies (plus any upcycled materials you wish), children combine their creativity and design thinking to imagine and then construct a model of a water slide. These instructions help guide children through the process, from conceptualization to construction, testing, and revision.

What You Need:

- Paper cups
- Paper tubes (such as paper
- towel rolls) Paper straws
- Plastic wrap
- Tupperware or container to make a "pool" at the bottom of the slide
- Tape
- Glue
- Small toy(s)
- Pen and paper for notetaking
- Any other supplies you find that can be upcycled!

What You Do:

Since this activity is fairly open-ended, there are numerous possibilities for how your child may decide to complete it. The purpose of this challenge is to allow your child to creatively decide how to use materials for a specific purpose: making a water slide. Although this is a creative challenge, it will likely be useful for you to guide your child through the process and provide suggestions for how they can best use their materials. We have given some ideas for how you can build your water slide, but feel free to make any adjustments according to the materials you have and what your child would like to do!



Part 1: Constructing the Water Slide

- 1. First, ask your child to **define** a slide by drawing some examples on a piece of paper. This will get your child to start thinking about the structure of a slide, prior to planning how they want to build their own.
 - a. Some questions you may ask your child to get them to start thinking about the design process: What do you notice about the structure of a slide? Do you notice how one end of the slide is always higher than the other? What is the difference between a normal slide and a water slide?
- 2. After your child has identified some of the key aspects of slides, allow them to brainstorm different ways they can use the materials you have provided them to create their own water slide. Ask them to write or draw their ideas on a piece of paper.
 - a. We suggest allowing your child to think creatively prior to making any suggestions, but feel free to guide them if you notice that they are stuck.
- 3. Once your child has made a plan for their water slide, allow them to begin building. Be sure to supervise and assist them at any time they need help.

Below, we have written a procedure for building a water slide. Feel free to use it if you'd like, or feel free to go solely off of your child's ideas:

- 1. Cut your paper tubes down on one side and stretch out the sides to create a slide structure. Depending on how long you want your slide to be, you may want to glue or tape two to three tubes together.
- 2. Add glue down the center of the tubes and cover them with plastic wrap.
 - a. Ask your child why they think it's necessary to use plastic wrap. (Answer: Plastic wrap makes the slide water-resistant.)

Part 2: Making a Structure to Support the Slide

- 1. After your child has built their water slide, explain that they will now need to create a structure that will hold up their slide.
- 2. First, ask your child to identify some of the necessary components of the water slide's supporting structure. Some questions you may ask to guide your child:
 - a. What does the structure need to support? (Answer: The structure needs to hold the weight of the slide and the toys that go on it.)
 - b. Where must the structure go to? (Answer: The structure must bring the slide down to the pool.)
 - c. What must the elevation of the structure be like? (Answer: The structure must start taller at the top of the slide, and gradually decrease in height to come down to the pool.)
- 3. After your child has thought critically about the key components of the slide's structure, they can begin bra**instorming how** they will make one. Again, ask them to write or draw their ideas on a piece of paper.

- a. Allow your child sufficient time to think independently and creatively about how they want to use the materials, but feel free to guide them with open-ended questions or suggestions whenever they are stuck.
- 4. An idea for creating the structure that you may suggest to your child:
 - a. Poke two holes in the bottom of each of your paper cups. (The number of paper cups you will need depends on how long your slide is. Make sure to have enough to support the slide's weight.)
 - b. Then, tape one straw in each hole. This will create a Y shape in each cup, which will support the sides of the slide.
 - c. For the top of the slide, which is the tallest point, stack two cups together by gluing or taping their mouths together. This will add height to the structure. Only tape two straws in the holes of the top cup, which will then support the top of the slide.
- 5. Once your child has made a plan for how they want to build their supporting structure, allow them to start building. Be sure to supervise and help out wherever needed.

Part 3: Putting it All Together and Testing

- 1. Once your child has built both the water slide and its supporting structure, it's time for the fun part: putting it all together and testing it out! Make sure to test out your child's slide outside or in an area that you don't mind getting wet.
- 2. Have your child tape the water slide to the supporting structure, and place a container at the bottom of the slide to serve as a "pool."
- 3. In order to **test** their prototype, ask your child to bring a small toy and place it at the top of the slide. Then, have them pour water at the top of the slide and see whether their toy will successfully slide down to the pool.
 - a. Allow your child to experiment with different amounts of water and different speeds of pouring until they find what works best.
 - b. If your child finds any flaws in their design, help them figure out what went wrong and encourage them to make revisions. It is important that they keep brainstorming and prototyping until they make a successful structure.

