

Week 2

4th Grade

Independent Study Packet

 Education.com

Write an Informative Narrative

An informative narrative tells how to do a certain task or project. Follow the instructions below to write your own informative narrative.

Choose a subject: Then use this structure to write your narrative:

- Introduction:** A statement or question that introduces the material.
- Materials:** List everything you'll need to complete the project.
- Order of Steps:** Write all of the necessary steps in order. Use sequencing words, such as first and then, to make your instructions clear.
- Conclusion:** A closing sentence that sums up or concludes your instructions.

Example:

Do you know how to properly feed a goldfish? You will need food and a careful eye. First, select a food especially for fish and your neighborhood pet store. Next, drop the water and watch for two minutes. The amount of time that is the amount you should use for feeding your fish simply because it seems hungry. Your goldfish will overeat if you follow these steps and healthy goldfish.

Introduction: _____

Materials: _____

Order of Steps: _____

Conclusion: _____

Go Abroad! Practice Reading a Bar Graph

Read the records of travelers using airline services. Then answer the questions below. Show your work.

Number of travelers using airline services in January

Airline Name	Number of Travelers
Kiwi Airlines	750
East-west Airlines	700
Disco Airlines	850
Babaghanoush Airlines	550
Cocoa Airlines	700

1. What unit of measurement is used to express the airlines' popularity?

2. Write a number at the end of each bar to indicate the number of travelers in each airline.

3. Are there any two airlines that have the same number of travelers? What are they?

4. If East-west Airlines had 250 more travelers, what rank would the Kiwi Airlines be?

5. How many more travelers does the Babaghanoush airline need to be the top airline among these five?

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

**ANSWER KEYS
INCLUDED**

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
- Internet access for online research
- You will need different materials for the optional Design Challenge

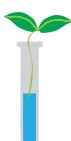


Directions & Tips



- There is a schedule for each day. You may complete the activities in any order. Social studies and science activities may take you more than one day to complete.
- 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.
- Check off each of the activities when you finish them on the activity menu.
- Make sure an adult signs the activity menu before you bring it back to school.

Activity Menu

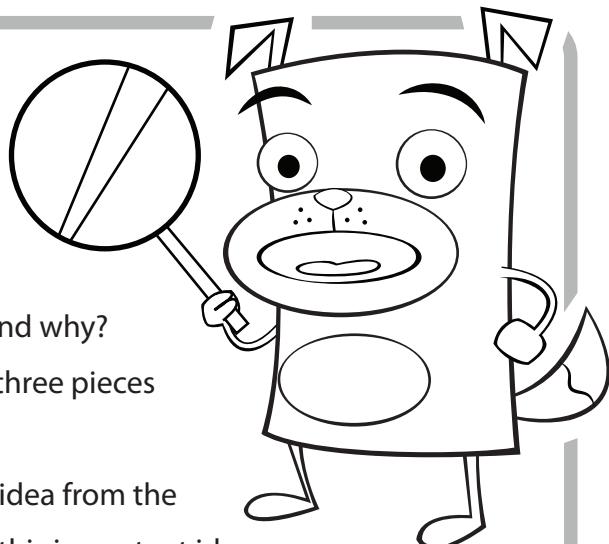
	Day 1	Day 2	Day 3	Day 4	Day 5
Reading 	Read for 20 minutes and answer three text-dependent questions from the sheet on another piece of paper or in a journal. Challenge: Try not to repeat a question!				
	The Aspirations of Sonia Sotomayor	Timeline of Sonia Sotomayor's Life	Research an Influential Person	Make Your Own Timeline	Reading Comprehension: Following Directions
Writing 	Two Truths and a Lie Sonia Sotomayor	Writing with Vivid Words	Informational Writing: Linking Ideas	Introductions for Informational Writing	Writing Instructions
Grammar Practice 	Frayer Model	Recognize a Fragment When You See One!	Awesome Articles	Sorting Out Adverbs	Mixed Review Language Arts
Math 	Missing Digits Addition and Subtraction	Division Crossword	Draw the Line of Symmetry	Going Abroad: Practice Reading a Bar Graph	Intro to Probability: Playing Cards
Social Studies 	All About Maps!				
Science 	It's Electrifying! Learn About Electricity				

Parent/Guardian Signature: _____

Text Dependent Questions for Independent Reading

Fiction Texts

- Choose a sentence that describes a character, setting, or action in an interesting way. Why did the author choose to use those particular words to tell the story? Which words in the sentence are the most important and why?
- What patterns do you notice in the story? Cite at least three pieces of evidence to support this.
- After reading a chapter, tell about the most important idea from the story. Fine one or two sentences in the text that show this important idea.
- How does the author use dialogue to tell the reader what is happening? Give an example from the text.
- If you don't know what is going to happen next, make a prediction. Give at least one piece of evidence from the text about why you predict that.
- What is the **tone** of the book? (Is it serious, funny, magical, sad?) Find at least two phrases or sentences that make the reader feel this way.
- What lesson is the author trying to teach the reader? How do you know? What in the book tells you that?
- What details in the text describe one of the characters for you?
- Is there a point in the story where things make a big change? What is it?



Nonfiction Texts

- How do the **pictures** in your text help you understand what you are reading? Give an example.
- How do the **captions** in your text help you understand what you are reading? Give an example.
- Pick a diagram, chart, or graph in your book. What is it trying to teach you? What conclusions can you draw from it?
- Is there a glossary in the back of the book? What word can you find that you didn't know before? Why is that word important to understanding the book?

Day 1

Reading	Discover the challenges Supreme Court Justice Sonia Sotomayor faced in her childhood.
Writing	Use the game Two Truths and One Lie to research facts and write a paragraph about Sonia Sotomayor.
Grammar Practice	Complete a Frayer Model with a word that describes Sonia Sotomayor.
Math	Find the missing digits, then place your answers in the boxes provided.



The Aspirations of Sonia Sotomayor



Directions: Read the passage about Sonia Sotomayor below, then answer the questions that follow using evidence from the text.

"Experience has taught me that you cannot value dreams according to the odds of their coming true. Their real value is in stirring within us the will to aspire."

— Sonia Sotomayor

Introduction

Have you ever thought about what you wanted to be when you grow up? Perhaps typical career paths, like becoming a doctor, nurse, or teacher have come to mind. But have you ever considered becoming a Supreme Court justice? Do you know what that is? There are currently only nine Supreme Court justices permitted at one time, so it is not surprising if you have never considered it!

One of the most recent appointees, Sonia Sotomayor, never dreamed of becoming a Supreme Court justice when she was growing up. Even though it was something she could not have imagined as a child, in 2009, President Barack Obama nominated Sonia to become the first Latina Associate Supreme Court justice in U.S. history.



Puerto Rico is an island located southeast of Florida. It is a territory of the United States. People born there are United States citizens.

Early Life

Sonia's parents were born in Puerto Rico, and moved to New York before Sonia was born. Sonia was born in the Bronx on June 25, 1954. Her mother was a nurse, and her father worked in a factory. She had a younger brother who she affectionately called Junior. Her abuelita, her father's mother, helped raise her, teaching Sonia her native language, Spanish. Since Spanish was Sonia's first language, she struggled to learn English while growing up. To build her confidence in the English language, she joined a Bible-reading group and read Bible verses aloud.

During her youth, Sonia enjoyed reading all types of books, from comic books to encyclopedias. One of her favorite series was about an inquisitive, crime-solving detective named Nancy Drew. When Sonia was seven years old and dreaming of becoming a detective, she was diagnosed with Type 1 diabetes. In order to survive, she had to take an insulin shot every day, which she quickly learned to give to herself. This was frightening for her because her dream of becoming a detective disappeared with her diagnosis. At the time, people could not be police officers if they had diabetes, and she needed to become a police officer before becoming a detective.

Not long after her diagnosis, Sonia decided to become a lawyer who stood up for people who needed help. She arrived at this decision after watching a famous, but fictional, television lawyer, Perry Mason. Sonia loved watching Perry Mason argue his cases in the courtroom, and thought it was amazing that there were people who worked to help others in this way.

Sadly, while Sonia was still young, only nine years old, her father passed away.

Education

Sonia's education began at home when her mother introduced her to a set of encyclopedias, which Sonia read daily. She became fascinated with the words and information, and always wanted to learn more.

The Aspirations of Sonia Sotomayor



Sonia graduated high school with honors and applied to an Ivy League college on her guidance counselor's recommendation. Though she was unfamiliar with Princeton, she chose to attend this prestigious university with the help of a scholarship.

While studying at Princeton, she was unafraid to ask questions, even if they made her seem unknowledgeable. When describing her experience at the school, she said the university seemed like a different world. For example, when a friend commented that Sonia sounded like Alice, Sonia didn't understand the reference. Even though she knew it would make her appear to be uninformed, she asked her friend who this Alice was. Her friend kindly explained that she meant Alice, from the book Alice in Wonderland. At the time, Sonia had never heard of the story, but by asking the question, she learned more about Lewis Carroll's classic work of literature.

Much of her time at Princeton was filled with studying hard and adapting to her new environment. With the new surroundings came new ideas. Sonia had the ability to share her own ideas, shaped by her childhood upbringing, with people who did not look or sound like her.



The U.S. Supreme Court was established by the Constitution to provide a checks and balance to the President and to Congress. The Supreme Court interprets U.S. laws by way of court cases.

Prosecuting Her Way to the Supreme Court

After becoming a lawyer in 1980, Sonia joined the District Attorney's office in Manhattan. Sonia worked as an Assistant District Attorney (ADA), interviewing victims and witnesses and evaluating the evidence surrounding crimes. As the ADA, she worked as a prosecutor, which is someone who brings cases against people who have broken the law. She worked as an ADA for four years, before joining the law firm Pavia & Harcourt in 1984.

Even while working for the private sector, she still did pro bono work, where she would represent people for free. Sonia served on the board of the Puerto Rican Legal Defense and Education Fund, the New York City Campaign Finance Board, and the State of New York Mortgage Agency. A few years after she joined the private firm, Senators Ted Kennedy and Daniel Patrick Moynihan noticed her pro

bono work and helped her get nominated as a judge.

There are many levels in the court system. President George H.W. Bush nominated her to become the youngest U.S. District Court judge for the Southern District of New York City in 1992. After she served in that position for five years, President Bill Clinton nominated her to become a judge in the U.S. Second Circuit Court of Appeals in 1997. While working in the court of appeals, Sonia began teaching law as an adjunct professor at New York University in 1998, and at Columbia Law School in 1999. Then, in 2009, President Barack Obama nominated Sonia Sotomayor to become a Supreme Court Justice.

Supreme Ideas as a Judge

After all her work as a student, lawyer, and judge, she was prepared to make decisions on landmark cases. The Supreme Court makes decisions that can affect the whole country, since they settle disputes between the federal government and citizens, or handle controversial cases.

While the odds of a Latina who did not speak English well as a child becoming a Supreme Court Justice might have seemed unlikely in the past, Sonia's appointment changed that. She paved the way for other women to

Name _____

Date _____

The Aspirations of Sonia Sotomayor



pursue their dreams, including aspiring to be in the highest court of the United States. No matter the obstacles she encountered, like language barriers, a health crisis, and the death of her father, Sonia continued to aspire to new heights and pave new pathways to her success. It was not with luck, but with hard work and perseverance that she reached the position she currently holds.

Who is Sonia Sotomayor?

What year was she born?

What experiences did Sonia have throughout her life?

What is an important obstacle she overcame?

How did she overcome the obstacle?

How does this obstacle connect to why she is famous?

What changes has Sotomayor made in the world that makes her influential?

Name _____

Date _____

Two Truths and One Lie: Sonia Sotomayor

Read the three statements about Sonia Sotomayor. Can you figure out which two statements are true and which one is false? Research using books, articles, or websites to confirm your answer. Circle the lie.



1

When she was seven years old, Sonia Sotomayor was diagnosed with diabetes, ending her dream of becoming a detective.

2

As a Puerto Rican descendant born in New York, she learned how to speak Spanish before struggling to learn English.

3

On August 8, 2019, Sonia Sotomayor became the first Latina to assume the role of Associate Justice to the Supreme Court.

Answer these questions after doing some research.

1. Fix the false statement so that it is now true.

2. Choose a fact about Sonia Sotomayor you think is important.

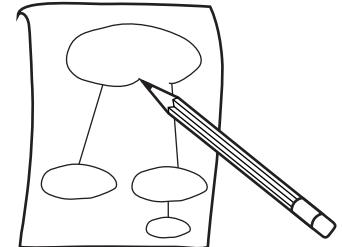
3. Explain why you chose that fact to share.

4. On a separate sheet of paper, write a paragraph about Sonia Sotomayor using more than two sources for information (like a website and an article).

Name: _____ Date: _____

Frayer Model

Directions: Write your vocabulary word in the "Vocabulary Term" oval. Complete the rest of the sections for the vocabulary term in your own words.



Definition:		Sentence:	
Vocabulary Term:			
Examples:		Non-Examples:	
		Image Representation:	

Missing Digits: Addition and Subtraction

Directions: Find the missing digits in the following problems. Place your answers in the boxes provided.

$$\begin{array}{r} 1. \quad 2 \boxed{} 5 6 \\ + \quad 2 \boxed{} 1 \\ \hline \boxed{} 5 9 7 \end{array}$$

$$\begin{array}{r} 2. \quad \boxed{} 8 6 \\ - \quad 3 4 \boxed{} \\ \hline 3 \boxed{} 9 \end{array}$$

$$\begin{array}{r} 3. \quad 7 9 6 \\ + \quad 3 \boxed{} \boxed{} \\ \hline 1 \boxed{} 8 0 \end{array}$$

$$\begin{array}{r} 4. \quad 3 7 2 \\ - \quad 5 \boxed{} \\ \hline 3 \boxed{} 6 \end{array}$$

$$\begin{array}{r} 5. \quad 4 \boxed{} \boxed{} \\ + \quad 3 9 \boxed{} \\ \hline \boxed{} 7 0 \end{array}$$

Day 2

Reading	Use a timeline to answer questions about Sonia Sotomayor
Writing	Writers engage their readers by using colorful details to describe the world around them. Practice writing with details.
Grammar Practice	Hone your skills at identifying sentences and fragments, then practice making revisions to make sentences complete.
Math	Get a fun review with this division crossword!



Timeline of Sonia Sotomayor's Life (So Far)

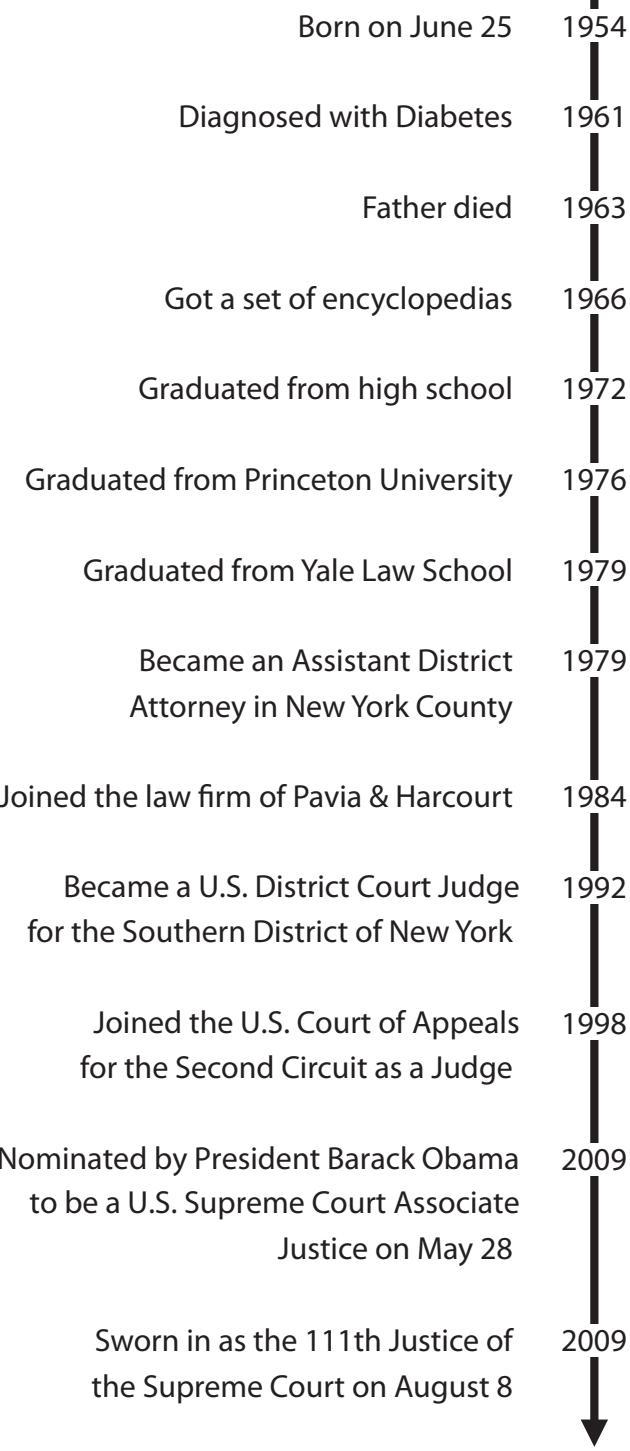


Sonia Sotomayor is the first Latina Supreme Court Justice in United States history.

The Supreme Court is the highest court in the country, meaning its decisions on court cases are final. The Justices are nominated by the President and serve a lifetime appointment after the Senate approves their nomination.

Directions: Use the timeline about Sonia Sotomayor's life to answer questions about her.

1. What event happened after Sonia Sotomayor joined the law firm of Pavia & Harcourt?
 2. How many years was Sonia Sotomayor a lawyer before becoming a judge?
 3. In what year did Sonia Sotomayor become a judge in the Southern District of New York?
 4. What do you wonder about Sonia Sotomayor that you cannot find on the timeline?



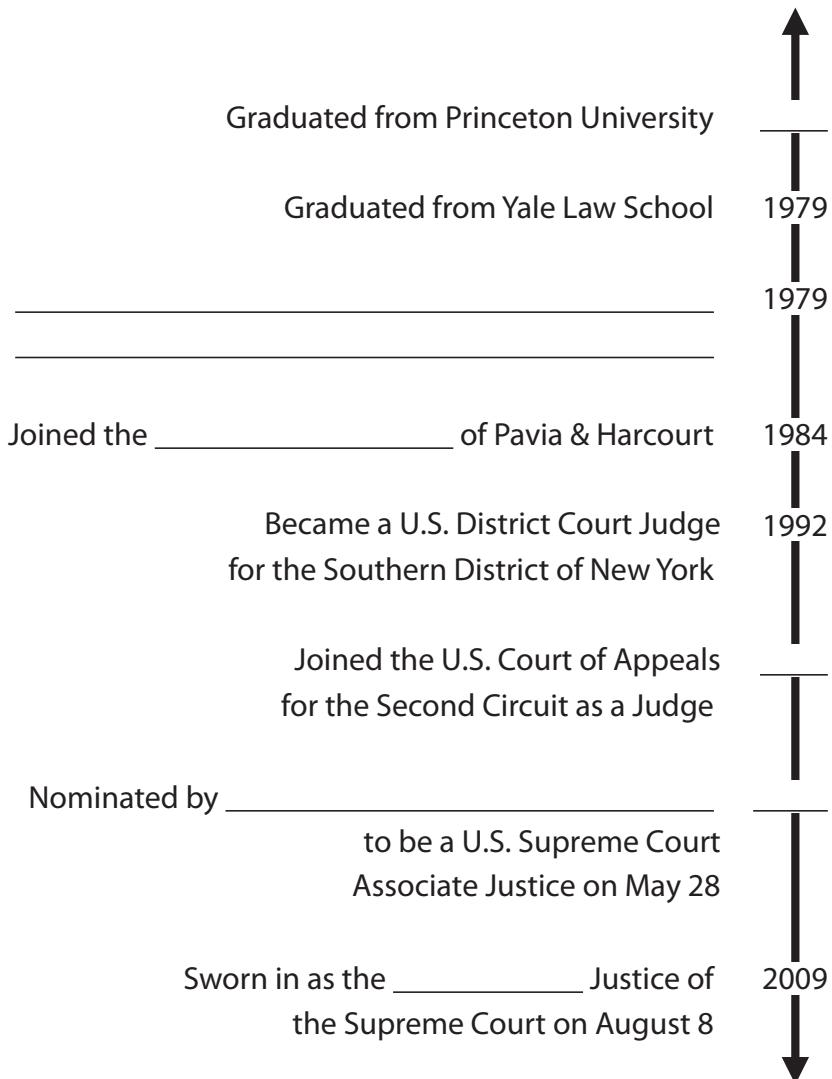
Name _____

Date _____

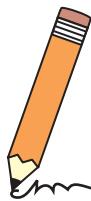


Timeline of Sonia Sotomayor's Life (So Far)

4. Write on the lines the missing information from this piece of the timeline.



5. Do some research about Sonia Sotomayor. What events would you like to add to the timeline? What events would you eliminate? Explain your choices.



Writing with Vivid Words

Writers use vivid words to tap into the five senses: sight, sound, smell, taste, and touch. These descriptive details paint a picture in the reader's mind and make writing more interesting!

Examples of Vivid Words

SIGHT <i>color, size, shape</i>	SOUND <i>volume, pitch</i>	SMELL <i>pleasant, bad</i>	TASTE <i>sour, sweet</i>	TOUCH <i>texture, temperature</i>
twinkling	silent	floral	cinnamon	slippery
golden	calm	earthy	salty	wet
bright	noisy	clean	spicy	damp
glowing	murmur	fresh	bitter	silky
dark	buzz	smoggy	delicious	rough
mysterious	rustling	old	cold	smooth
camouflaged	voices	fruity	warm	bumpy

Directions: Describe each scene below in one or two sentences. You may choose words from the example box or use your own vivid words!

recess

the morning time

The sun was beaming down on the large blacktop and birds were chirping in the distance. Happy sounds filled the air as kids skipped out of their classrooms.

the sky at night

your favorite meal

the winter

your favorite pet or stuffed animal

Name: _____

Date: _____

Recognize a Fragment When You See One!

Read each example below. Circle whether it is a sentence or fragment. If it is a fragment, make revisions to turn it into a complete sentence.

After the doctor examined the broken arm, which was broken in two places.

Sentence Fragment

FIX:

During the baseball game, in the third inning to be exact.

Sentence Fragment

FIX:

We took the short way to get to the store.

Sentence Fragment

FIX:

His ex-girlfriend Samantha, the one he dated five years ago.

Sentence Fragment

FIX:

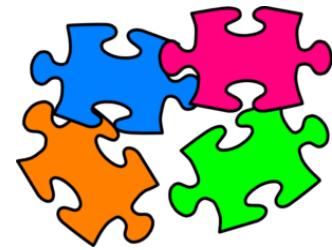
A meteor from a galaxy 67 light years away.

Sentence Fragment

FIX:



Math Crossword Puzzle



Fill in the blanks of each crossword puzzle
to make the division equations true.

64	÷		=	8
÷				÷
	÷		=	2
=				=
32		÷		= 9

	÷	2	=	27
÷				÷
	÷	2	=	
=				=
	÷		= 9	9

				36	÷		=	2		
÷				÷		÷				
12				81	÷		=			
=							=			
12	÷		=	4			÷	1	=	

Day 3

Reading	Conduct your own research on an influential person and complete a graphic organizer.
Writing	Practice linking ideas within your writing to make strong connections.
Grammar Practice	Do you know your articles? Articles are often overlooked words, but they're important!
Math	Can you find the line or lines of symmetry? Draw the line of symmetry in a variety of different 2D shapes.



Name _____

Date _____

Graphic Organizer: Research an Influential Person



Conduct research on an influential person. Use more than one source of evidence to fill in this graphic organizer.

Who is the person?

What year was this person born?

What experiences did this person have throughout their life?

What is an important obstacle this person overcame?

How did the person overcome the obstacle?

How does this obstacle connect to why this person is remembered?

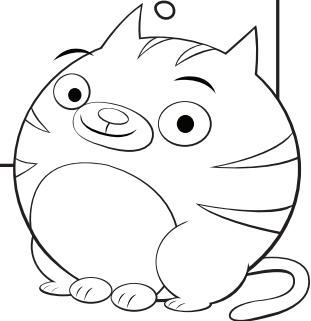
What changes has this person made in the world that makes them influential?

Informational Writing: Linking Ideas

Why are Linking Words and Phrases important?

- They introduce new ideas.
- They connect key information (facts and details) in our writing by showing:

-Time order	-Compare and Contrast
-Examples	-Emphasis
-Additional information	-Conclusions



Transitions Words & Phrases

Time Order

after	initially
before	later
currently	meanwhile
during	previously
finally	second
first	since
following	soon

Additional Information

additionally	for instance
along with this	furthermore
also	in addition
another	
as well	

Compare and Contrast

like	although
similar to	on the other hand
compared to	in contrast

Examples

evidence of this	in particular
for example	in this case
for instance	such as

To Conclude

as a result	lastly
finally	therefore
in conclusion	thus
in summary	to sum up

Emphasis

always	never
especially	without a doubt
in fact	surprisingly

Informational Writing: Linking Ideas

Why are Linking Words and Phrases important?

- They introduce new ideas.
 - They connect key information (facts and details) in our writing by showing:
 - Time order
 - Examples
 - Additional information
 - Compare and Contrast
 - Emphasis
 - Conclusions

Directions: Based on the other transitions in the passage, choose a good transition word to use in each blank. Circle the best transition and write it on the line.

1. Tornado safety is important because this violent weather event commonly occurs in the spring. First, pay attention to the local news and weather apps on your phone.

In conclusion Next _____, be sure to have a safe place to go in the case that a tornado warning has been issued for your area. _____, follow the warnings. Many people ignore the warnings, which puts them in danger. _____, tornado safety is very important, especially for people who live in Tornado Alley where most tornadoes occur.

2. There are many reasons that rain is an important part of weather. _____, rain is necessary for plants and grass to grow. Without rain, plants and flowers would die.

Before Also _____, rainfall fills streams, rivers, and lakes. This is where humans get water that is clean to use and drink. _____, the rain that fills the streams, In addition Always river, and lakes is important for the living organisms there. If there was no rain, their homes would dry up. _____, while rain can be annoying to deal with, Earth's living creatures depend on it.



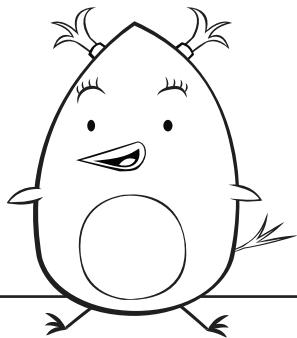
Awesome Articles



Articles are the words **a**, **an**, and **the**. They are a type of adjective because they tell whether the noun that comes after it is a specific object or an undefined one. If you want to refer to something specific you use **the**, as in “I want **the** book.” If you want to say that any book will do, you say, “I want a book,” because it doesn’t matter which book. If the noun afterward starts with a vowel sound, rather than using **a**, use the article **an**.

When referring to a specific noun:

The game
The ball
The apple
The teacher
The invitation



When referring to a noun that is not specific:

A game
A ball
An apple (the noun starts with a vowel sound)
A teacher
An invitation (the noun starts with a vowel sound)

Now, examine the quotes from the Newbery Medal winning book *Bud, Not Buddy* by Christopher Paul Curtis. In each one, circle the articles (**a**, **an**, **the**) and underline the noun that they are describing. The first one is done for you.

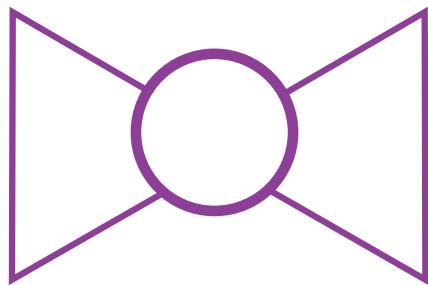
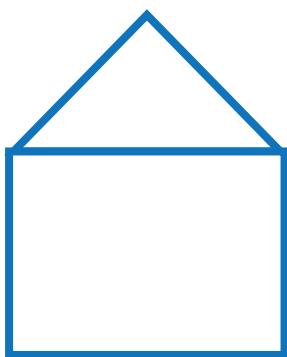
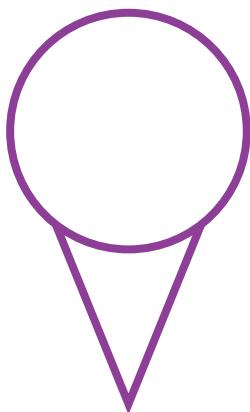
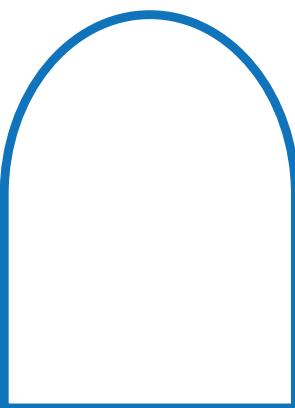
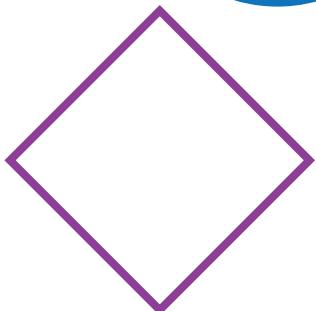
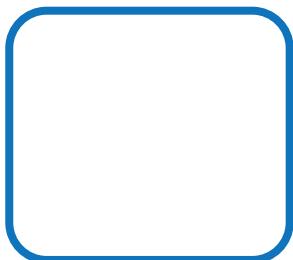
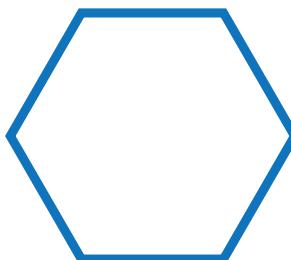
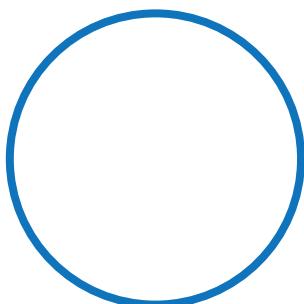
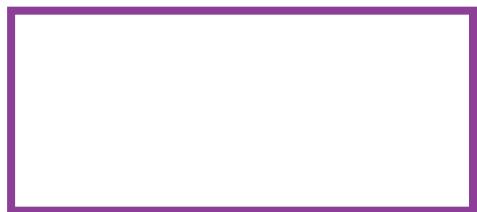
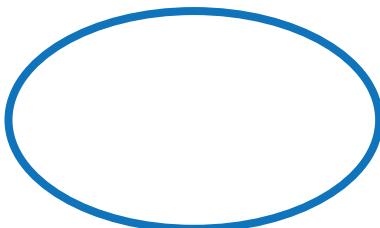
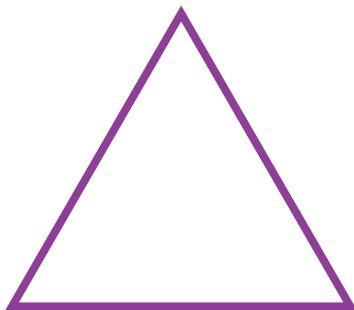
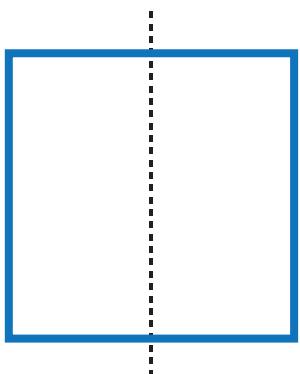
“There comes a time when you're losing a fight that it just doesn't make sense to keep on fighting. It's not that you're being a quitter, it's just that you've got the sense to know when enough is enough.”

“A bud is a flower-to-be. A flower in waiting. Waiting for just the right warmth and care to open up. It's a little fist of love waiting to unfold and be seen by the world. And that's you.”

“As soon as I got into the library I closed my eyes and took a deep breath. I got a whiff of the leather on all the old books, a smell that got real strong if you picked one of them up and stuck your nose real close to it when you turned the pages. Then there was the smell of the cloth that covered the brand-new books, books that made a splitting sound when you opened them. Then I could sniff the paper, that soft, powdery, drowsy smell that comes off the page in little puffs when you're reading something or looking at some pictures, kind of hypnotizing smell.”

Your Half, My Half

Can you draw a line to divide these shapes in half evenly?
Some shapes can be divided two different ways.



Day 4

Reading	Make your own timeline about a person you have researched.
Writing	Map out what should be included in an introduction paragraph. Then, practice writing the hook of an introduction.
Grammar Practice	Adverbs can express location, time, frequency, manner, or degree. Identify at least seven adverbs of each kind and sort them into a graphic organizer.
Math	Read and interpret data in a bar graph about airlines and use its information to answer a set of word problems.



Make a Timeline of an Influential Person

A helpful way to learn facts and important information about people is to create a timeline. As your child reads a biographical text, they can use the storyboard worksheet to draw and record important information or dates about the person. Then, they can place the dates and events in a timeline to show their understanding of important facts in chronological order. Challenge learners to support their choice of details to get them to think critically about them. This activity is perfect for studying influential people during Women's History Month, Black History Month, Hispanic Heritage Month, Asian American and Pacific Islander Heritage Month, and beyond.

What You Need:

- One or two copies of the [Storyboard](#) worksheet
- Biography of someone you would like to research



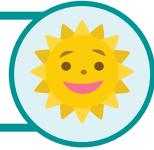
What You Do:

1. Give a short description of the person your child chooses to study.
2. Have your child read a biography about the person. For younger researchers, read a picture book biography or autobiography.
3. Discuss the details of the person's life and why they are famous or remembered.
4. Reread the book or text with your learner and have them write down notes on the Storyboard worksheet. Support your learner by allowing them to draw pictures first and then go back to add sentences.
5. Have them cut out the details and place them in a timeline. If your child did not include dates in their events, encourage them to do so now to help them place the events.
6. Review the event placements with your child. Ask them some of the following questions to get them thinking about the importance of each of the details they chose:
 - Which detail is the most important?
 - Which detail is the least important?
 - Why would you choose to add this detail over another?
 - Would this person's life have been different if you eliminated one of their important life events? How did one event impact another event?
7. Throughout all the discussions, allow your child to disregard or add different events if they choose to.
8. Ask your child to summarize the person's life using their timeline as a reference.
9. Once they have all their finalized events in place, learners can glue the events on construction paper.

Creating timelines, whether biographical or personal, is a helpful way to organize important information. Enjoy great conversations with your researcher to help them develop critical thinking skills with this activity.



Introductions for Informational Writing



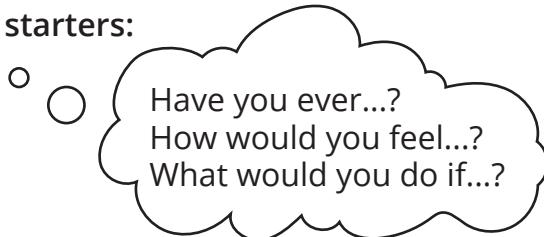
Name: _____

Date: _____

An introduction is your first chance to make an impression on your reader! Hook your reader to get them interested in your topic, then give a preview of what they will learn.

A **hook** is a question or surprising statement that catches the reader's attention at the start of the introduction. It should help the reader make a personal connection to the topic or it should make them feel curious.

Here are some example hook question starters:

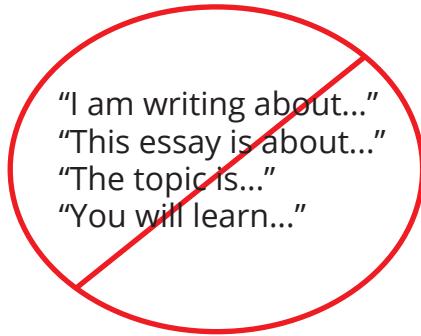


Practice writing your own hook questions:

1. _____
2. _____
3. _____

Some common mistakes when writing an introduction are:

- Giving all the information up front.
- Introducing text in a boring way that doesn't make the reader interested in the topic.

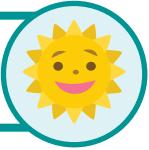


Here's an example of a strong introduction:

How would you feel if a stranger came into your home? You might be scared or angry. That's exactly how the Wampanoag people felt when European settlers arrived in North America in 1620. But, eventually the Wampanoag people helped the newcomers survive their first winter in America.



Introductions for Informational Writing



Name: _____

Date: _____

The introduction is the first paragraph of an informational text. However, one great strategy is to write it after you have written the body of the text. Read the text below, then follow the steps to write an introduction paragraph.

The word 'climate' describes conditions like temperature, rainfall, and wind in a particular region. Scientists keep track of data, or information, about climate so that they can see how things change over long periods of time. In recent years, scientists have noticed that the average temperature of the entire planet has increased. This increase in temperature is called 'global warming.'

Scientists who are studying the changes in Earth's climate have discovered that humans are partly responsible for global warming. The things we do every day, like drive cars and raise cattle for food, release gases that are trapped by the atmosphere. The atmosphere is like a blanket that surrounds our planet, and when the gases are trapped, it warms the air temperature in what scientists call the 'greenhouse effect.'

We can help slow or stop climate change by reducing the amount of gases that are released into the atmosphere. Carbon dioxide is a greenhouse gas that is released when we drive cars or burn fossil fuels, like coal. But planting trees and other plants can help slow global warming because plants take in carbon dioxide and release oxygen. Other greenhouse gases, like methane, are produced when the waste in landfills decomposes. By recycling and composting waste whenever possible, we can limit what ends up in landfills.

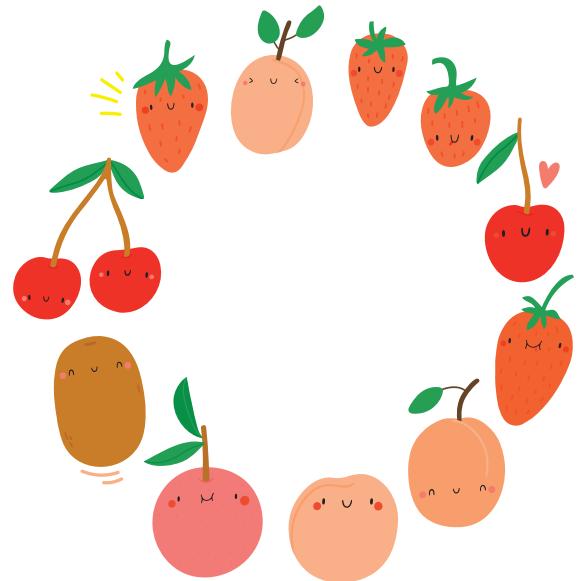
Steps to write an introduction:

1. Write a hook question to draw readers in.
 2. Answer your hook question with a brief statement.
 3. Give a preview what readers will learn in the text.
-
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SORTING OUT ADVERBS

Adverbs are words that add more description to adjectives, verbs, or other adverbs expressing a location, time, frequency, manner, degree.

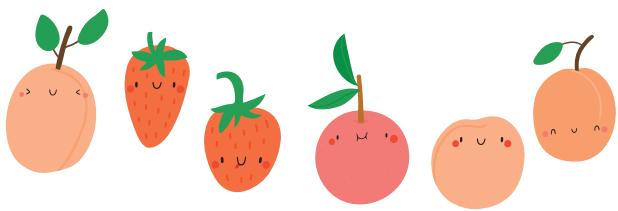
DIRECTIONS: Sort the adverbs in the word bank below into the graphic organizer on page 2. Sort until you have found at least seven adverbs of each category.



ADVERB BANK

accidentally	always	angrily	anxiously
awkwardly	badly	blindly	boastfully
boldly	bravely	brightly	cheerfully
coyly	crazily	defiantly	deftly
deliberately	devotedly	doubtfully	dramatically
dutifully	eagerly	elegantly	enormously
evenly	eventually	exactly	faithfully
finally	foolishly	fortunately	frequently
gleefully	gracefully	happily	hastily
honestly	hopelessly	hourly	hungrily
innocently	inquisitively	irritably	jealously
justly	kindly	lazily	loosely
madly	merrily	mortally	mysteriously
nervously	never	obediently	obnoxiously
occasionally	often	only	perfectly
politely	poorly	powerfully	promptly
quickly	rapidly	rarely	regularly
rudely	safely	seldom	selfishly
seriously	shakily	sharply	silently
slowly	solemnly	sometimes	speedily
sternly	technically	tediously	unexpectedly
usually	victoriously	vivaciously	warmly
wearily	weekly	wildly	yearly

SORTING OUT ADVERBS



DIRECTIONS: Sort the adverbs from the word bank on page 1 into the graphic organizer below. Sort until you have found at least seven adverbs of each category.

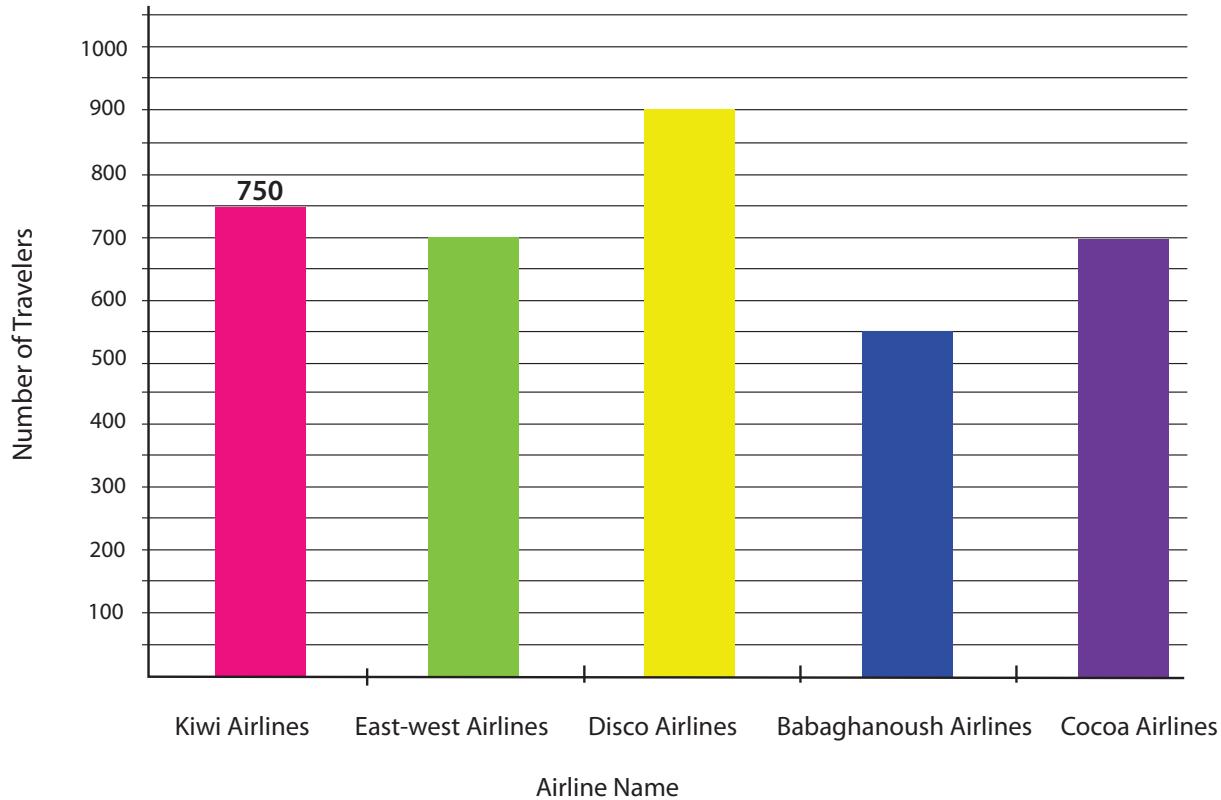


Go Abroad!: Practice Reading a Bar Graph

4th
Grade

Read the records of travelers using airline services. Then answer the questions below. Show your work.

Number of travelers using airline services in January



1. What unit of measurement is used to express the airlines' popularity?
2. Write a number at the end of each bar to indicate the number of travelers in each airline.
3. Are there any two airlines that have the same number of travelers? What are they?
4. If East-west Airlines had 250 more travelers, what rank would the Kiwi Airlines be?
5. How many more travelers does the Babaghanoush airline need to be the top airline among these five?

Day 5

Reading	Read directions for creating an at-home project, and then put all the different steps in order.
Writing	Practice writing instructions in this informational writing worksheet for fourth and fifth graders. Students will learn about writing informative step-by-step instructions.
Grammar Practice	Review your language art skills!
Math	Learn probability with playing cards.



Reading for Comprehension: Following Directions

Directions: Can you follow the directions for this fun activity? Read the directions carefully, and then number the steps below in the correct order.

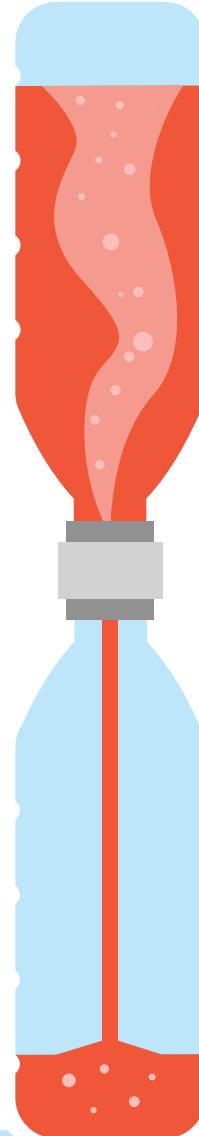
Have you ever seen a tornado on the news or television? They are really dangerous! But you can make a tornado safely in your own home. You'll need two plastic bottles, some glue, a large nail, water, food coloring, glitter, and some help from an adult.

First, get two plastic bottles with screw-on caps. Glue the caps together so the tops are back-to-back. Ask an adult to help you make a hole through the glued bottle caps using a large nail. Then, fill one bottle about three-quarters full with water. Add food coloring of your choice and some glitter so the tornado will be easy to see. After that, screw the double cap onto the bottle with water in it. Screw on the empty bottle at the top.

Next, see if your tornado works! Turn the two bottles upside down. Be sure to use both hands to hold the bottom bottle carefully. Move your wrists in a circular motion as if you were drawing circles in the air. This will turn the bottles, and the water inside the bottles will start to swirl. Now, you should see a tornado-like funnel form in the water. But don't worry! You don't need to take shelter with this tornado.

Directions: Put the steps below in order. Use numbers 1–10 to show the sequence.

- ____ Add food coloring and glitter.
- ____ Glue the caps together.
- ____ Screw the double cap on the bottle with water.
- ____ Move the bottles in a circular motion to make the water swirl.
- ____ Watch the tornado-like funnel form in the water.
- ____ Use a large nail to make a hole in the caps.
- ____ Screw the empty bottle on top.
- ____ Fill one bottle until it is about $\frac{3}{4}$ full with water.
- ____ Find two plastic bottles with screw-on caps.
- ____ Turn the double bottles upside down.



Write an Informative Narrative



An **informative narrative** tells how to do a certain task or project. Follow the instructions below to write your own informative narrative.

Choose a subject, then use this structure to write your narrative:

Introduction: A statement or question that introduces the main idea.

Materials: List everything you'll need to complete the project.

Order of Steps: Write all of the necessary steps in order. Use sequencing words, such as *first* and *then*, to make your instructions clear.

Conclusion: A closing sentence that sums up or concludes your instructions.

Example:

Do you know how to properly feed a goldfish? You'll need the right food and a careful eye. First, select a food especially for goldfish. You can find one at your neighborhood pet store. Next, drop a pinch of food into the water and watch for two minutes. The amount of food your fish eats within that time is the amount you should use for each feeding. Finally, don't feed your fish simply because it seems hungry. If given the chance, your goldfish will overeat! Follow these steps and you'll have a happy, healthy goldfish.

Introduction: _____

Materials: _____

Order of Steps: _____

Conclusion: _____

Mixed Review Language Arts Assessment

Let's Soar in Grade 4

Directions: Record the parts of each prepositional phrase below.

example: Sarah sprinted down the hill.

Preposition = down Object = the hill

down + the hill = down the hill

1. I cleaned during the commercials.

Preposition = _____ Object = _____

_____ + _____ = _____

2. I have homework on the weekends.

Preposition = _____ Object = _____

_____ + _____ = _____

3. My mom is cheerful in the morning.

Preposition = _____ Object = _____

_____ + _____ = _____

Directions: Use context clues to choose a compound word to complete each sentence.

WORD BANK

blockbuster

gatekeeper

freshwater

greenhouse

4. The animated film that was released by Fun Films last fall was a _____.

5. At least one _____ stands guard at the castle at all times.

6. There are _____ fish in Lompoc Lake.

Directions: Circle the hyperbole in each sentence.

example: She cried a river of tears.

7. I'm so hungry I could eat a horse.

8. They have a ton of money.

9. My feet are killing me.

Directions: Read each sentence and underline the two words that can be combined to make a contraction. Write the contraction on the line.

10. I know he will return to his car on time.

11. Ellie did not want to take the exam.

Directions: Underline the words that need to be capitalized. Then, rewrite each sentence using correct capitalization.

12. On july 4, 1776, the declaration of independence was issued.

13. The mississippi and missouri rivers combine to form the longest river system in the U.S.

Bag O' Stuff: Cards



There is a bag of items.

Answer the questions using the pictures of what's in the bag.

1. What is the probability of pulling a **card of hearts** out of the bag?

$$\underline{\underline{5/20 = 1/4}}$$

2. What is the probability of pulling a **black card** out of the bag?

3. What is the probability of pulling an **Ace** out of the bag?

4. What is the probability of pulling a **red four** out of the bag?

5. What is the probability of pulling either a **card of spades or clubs** out of the bag?

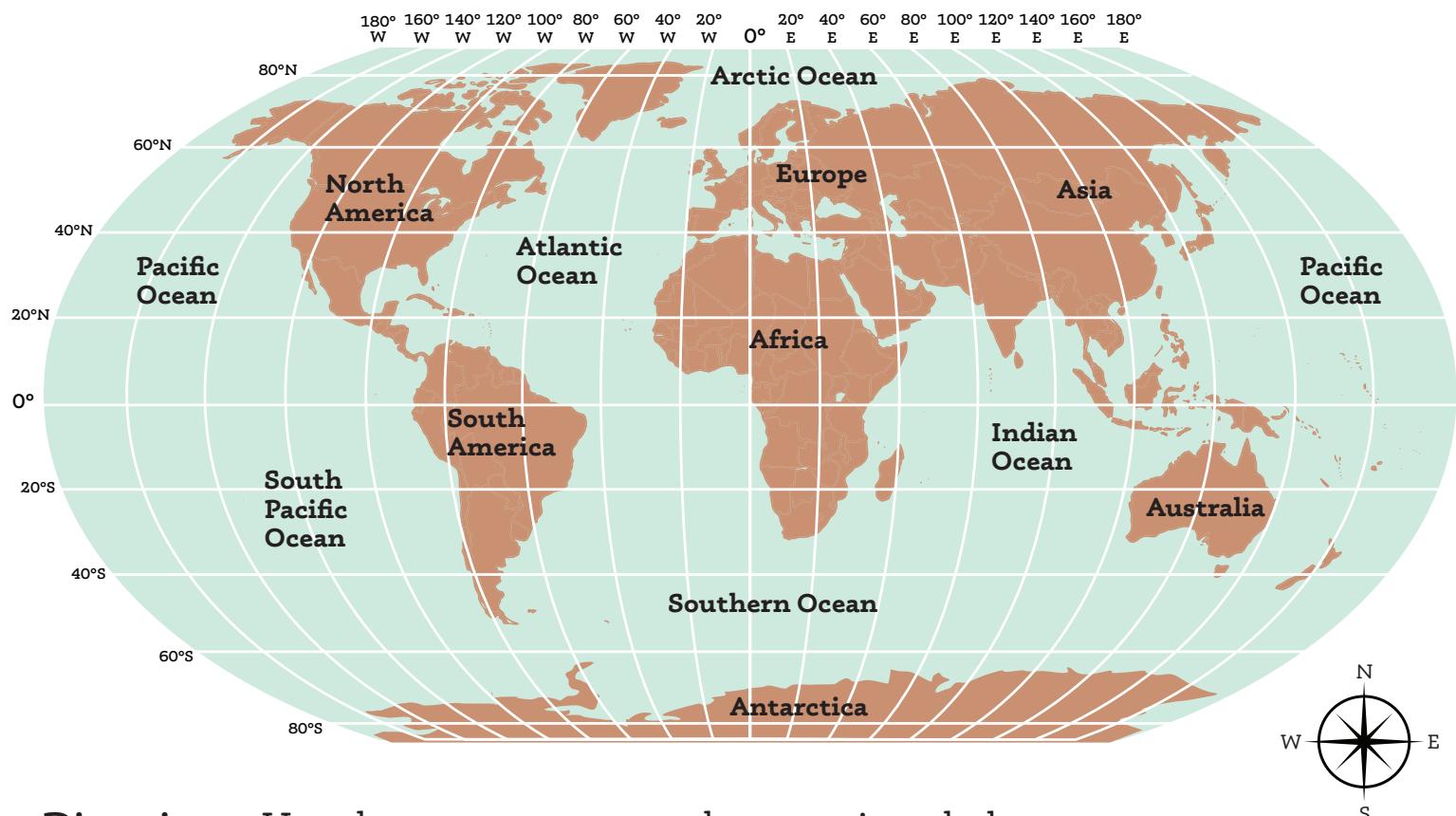
6. What is the probability of pulling a **three of diamonds** out of the bag?

Latitude and Longitude

What are latitude and longitude, and how do you use them?

Latitude: lines that run in an east to west direction across the Earth.
(Latitude degrees are measured as north and south.)

Longitude: lines that run in a north to south direction across the Earth.
(Longitude degrees are measured as east and west.)



Directions: Use the map to answer the questions below.

Example: What continent is at 20° south and 20° east? Africa

1. What continent is 40° north and 20° east? _____
2. What ocean is found at 20° south and 100° east? _____
3. What continent is at 20° south and 120° east? _____
4. What ocean is at 40° south and 160° west? _____
5. What continent is at 40° north and 100° east? _____

Name _____

Date _____

MAP GRID: HAWAII



Directions: Find each of these Hawaiian cities on the grid. Each city lies within a square that's named for the column and row that make up its sides. For instance, Hana is in column I, row 5, which means it is in square I5.

Honolulu: _____

Kapaa: _____

Captain Cook: _____

Hana: _____

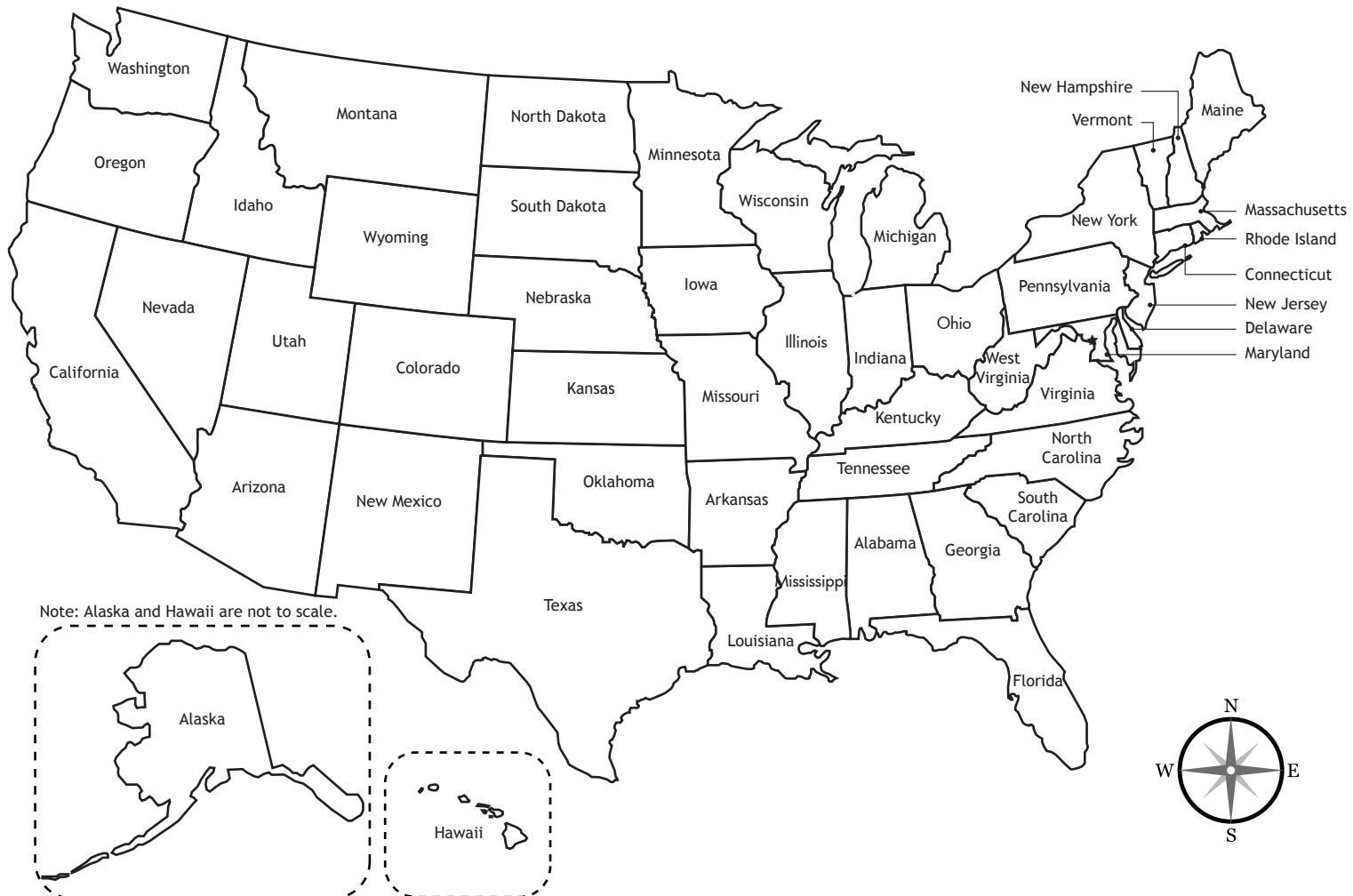
Hilo: _____

Kalaupapa: _____



Know the States

Use the map to answer the questions about the United States.



Which state is the smallest? _____

Which state borders only one other state? _____

How many states have the word "New" in their names? _____

Write their names:

Use the map to answer the questions about the United States.

Which four states share one common corner?

Hint: The corners meet in a shape of a +.

Which state is directly east of North Dakota? _____

Which state is directly west of North Dakota? _____

Which state is directly north of Tennessee? _____

Which state is directly south of Iowa? _____

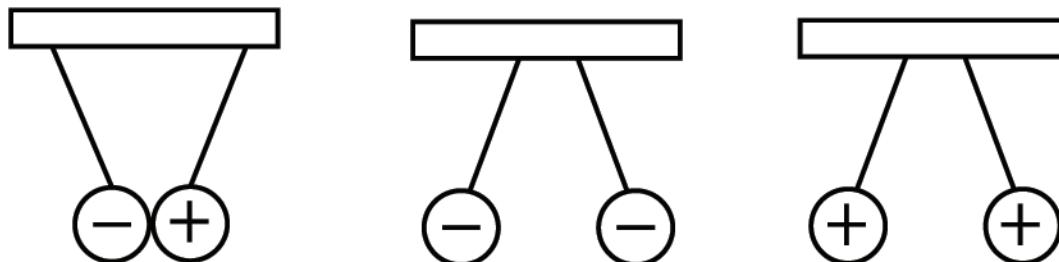
Which two states are separate from the continental U.S.?

Which states border West Virginia?

Which states border Arkansas?

ESCAPING ELECTRONS!

An atom usually has the same number of protons and electrons, but the electrons can separate from atoms. You may have heard the expression "opposites attract". In the case of atoms, unlike charges attract each other and like charges repel each other. The attraction between like charges (positive + positive, negative + negative) causes the movement of electrons between two objects.



An object is neutral and has no charge when it has the same amount of protons and electrons. But when the object loses or gains electrons it becomes unbalanced, and electrically charged. If there are more protons than electrons, the object carries a positive charge. If there are more electrons than protons, the object carries a negative charge.

Some materials allow electrons to pass through more easily than others. **Conductors** hold onto electrons loosely. Electrons move easily through these materials. Metal is a good conductor.



Insulators hold onto electrons tightly. Electrons do not move easily through these materials. Plastic, cloth, and glass are good insulators.



Circle the word that makes each statement true.

An object with a positive (+) charge will **attract repel** an object with a negative (-) charge.

An object with a negative (-) charge will **attract repel** an object with a negative (-) charge.

An object that gains electrons will have a **positive negative** charge.

An object that loses electrons will have a **positive negative** charge.

An **insulator conductor** _____.

All About Circuits

In this two page worksheet, you will learn about circuits, including what they look like, how they work, how to draw a diagram of them, and how to make one.

Circuits are all around us; they can be as simple as a battery connected to a lightbulb, and as complex as those found within computers. Circuits are like highways for electrons, which are particles that make up electricity. Electrons will always travel between positive and negative terminals of a power source, like a battery. Like people, electrons will never leave "home" unless they can get back; therefore, electrons will only flow through a circuit that has a complete path between positive and negative terminals. If the electrons don't flow, then power won't flow, and anything connected to the circuit will not turn on. In addition, electrons are lazy: they will always take the path of least resistance, or the easiest route between terminals. For example, if given the choice between a path with a lightbulb or a path without, they will take the path without the lightbulb.

Symbols used to represent circuit parts:

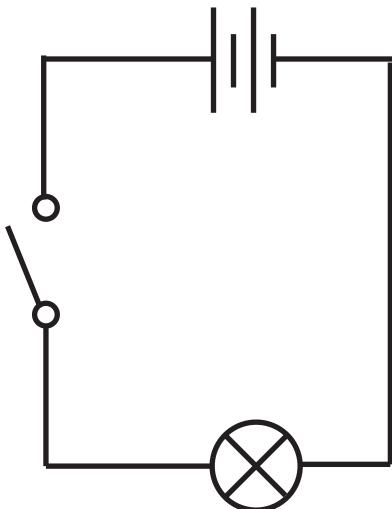
BATTERY: |||

LIGHTBULB:

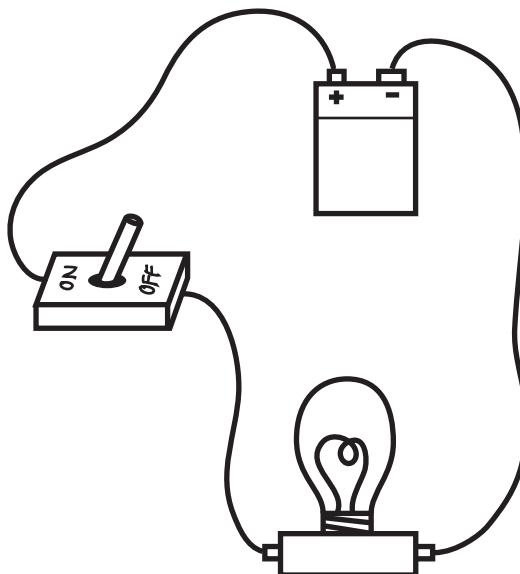
WIRE: —

SWITCH:

Circuit Diagram:

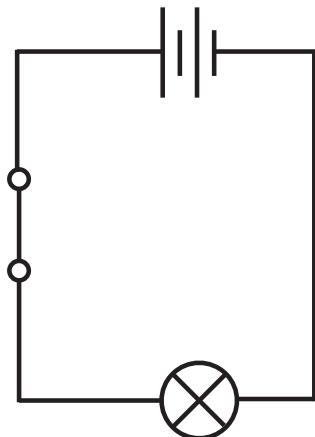


Drawing of Circuit:

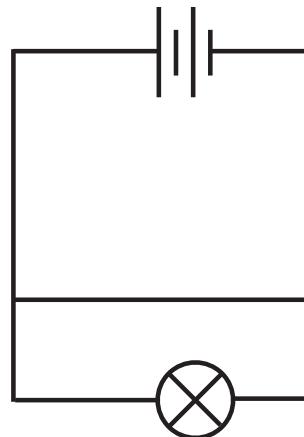


Will the Lightbulb Turn on?

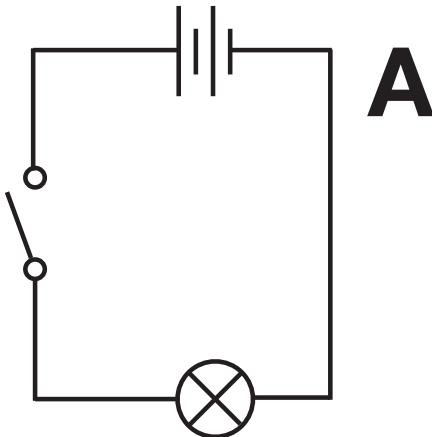
On this second page, specify whether you think the lightbulb in each circuit will be on or not. The first two circuit diagrams are examples.



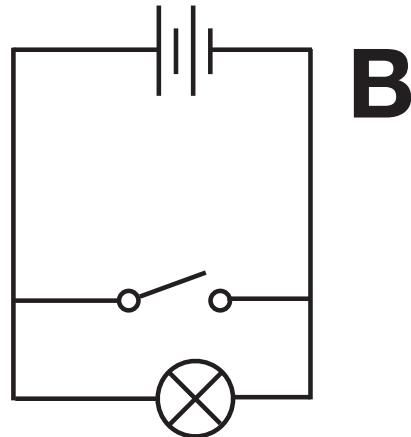
The lightbulb in this circuit will be on because the switch is closed, allowing electricity to flow through it to the lightbulb.



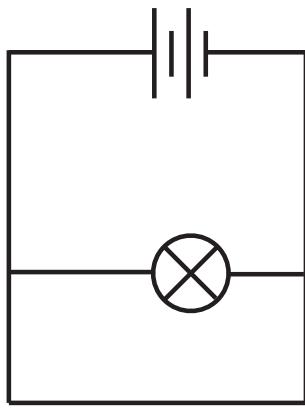
The lightbulb in this circuit will not be on because there is another wire bypassing the lightbulb, and since electricity takes the path of least resistance, it will not pass through the bulb and turn it on.



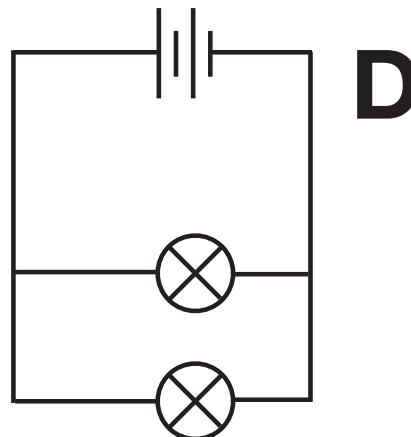
A



B



C



D

NIKOLA TESLA

Nikola Tesla is often considered a real-life mad scientist! He did many experiments with electricity and made several groundbreaking discoveries about how it works and how it can be used.

Born in what is now Croatia in the mid-1800s, Tesla was always a curious and intelligent person. He attended university where he studied math and science. While in school, he came up with the idea for a new kind of motor and was hired by electric companies across Europe to improve their machines. It was there that he began forming the idea for the alternating current – AC. At age 28, he moved to New York City and was hired by Thomas Edison. However, Tesla and Edison had different ideas about how electricity should be used and ended up becoming rivals in the “War of Currents,” a debate over which type of electricity should be used. Tesla was in favor of AC, but Edison thought DC was better. In the end, Tesla’s AC triumphed – AC is now the standard form of electricity delivered to homes and businesses.

Tesla is remembered for conducting experiments on a grand scale and for his eccentric ideas, which, though considered outlandish at the time, lead to important discoveries. Tesla’s legacy is everywhere: not only are all modern homes run on AC, but he paved the way for scientific research in hydroelectric power, radio, robotics and wireless communication.

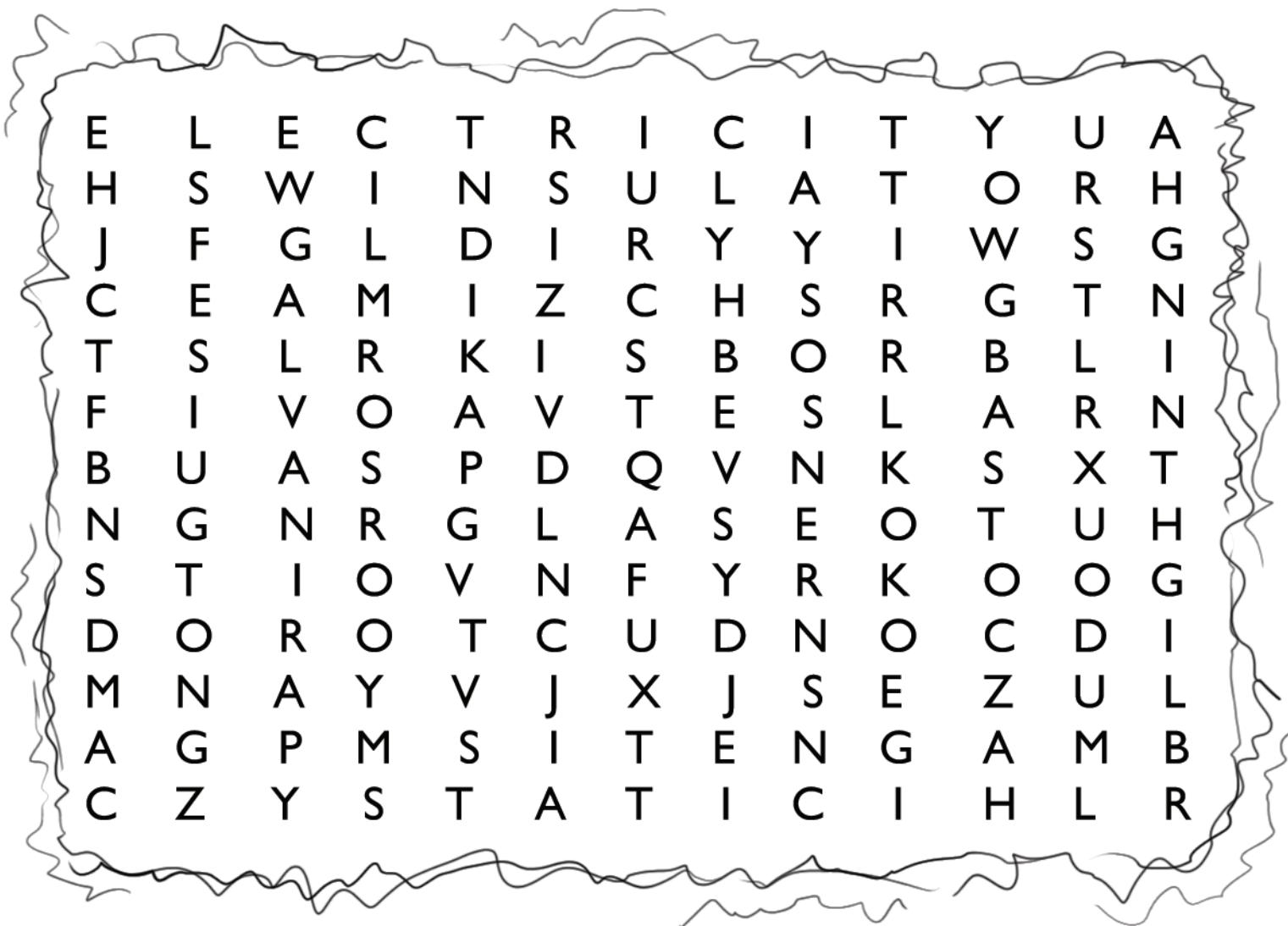
Name three places you might see electricity, wireless communication, or robotics today.

**By the end of his life, Tesla held over 100 patents!
In the space below, design an invention that uses AC.**



ELECTRIFYING WORD SEARCH

Find the words related to electricity and magnetism in the word search below!



WORDS

INSULATOR

FARADAY

STATIC

ELECTRICITY

MAGNETISM

GALVANI

TESLA

LIGHTNING

CONDUCTOR

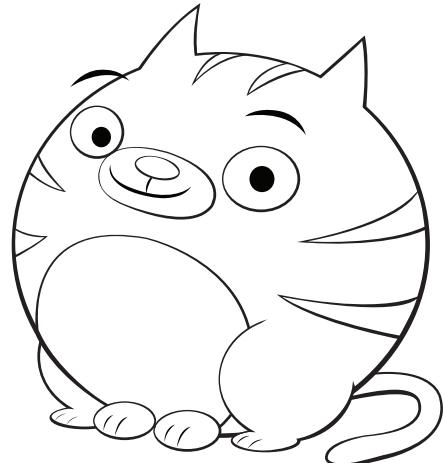


Week 2

Independent Study Packet

ANSWER KEYS

**Use these answer keys
to check your work!**





The Aspirations of Sonia Sotomayor

pursue their dreams, including aspiring to be in the highest court of the United States. No matter the obstacles she encountered, like language barriers, a health crisis, and the death of her father, Sonia continued to aspire to new heights and pave new pathways to her success. It was not with luck, but with hard work and perseverance that she reached the position she currently holds.

Who is Sonia Sotomayor? Sonia Sotomayor is the first Latina Associate Supreme Court Justice in the U.S.

What year was she born? She was born in 1954 in New York.

What experiences did Sonia have throughout her life?

She studied a lot and would go to the library often. The author says she struggled to learn English while growing up. She was diagnosed with Type 1 diabetes when she was young. Her father died when she was young as well.

What is an important obstacle she overcame?

She was diagnosed with Type 1 diabetes when she was young. She has to take a shot every day. She also did not know how to speak English well when she was little.

How did she overcome the obstacle?

She learned how to give herself the shot she needs to survive. She was only seven years old! She also would read the Bible aloud to help her learn English.

How does this obstacle connect to why she is famous?

I think her overall ability to overcome obstacles is what helped her become a Supreme Court Judge. She would always ask questions, even if it meant showing she did not know everything. She would work hard and study at the library. She helped others with pro bono work as a lawyer. All of her accomplishments are because she worked hard and never gave up on helping others.

What changes has Sotomayor made in the world that makes her influential?

She was the first Latina to become a Supreme Court Justice. This shows that with hard work, other Latinas can become Supreme Court Justice too!



Two Truths and One Lie: Sonia Sotomayor

Read the three statements about Sonia Sotomayor. Can you figure out which two statements are true and which one is false? Research using books, articles, or websites to confirm your answer. Circle the lie.

1

When she was seven years old, Sonia Sotomayor was diagnosed with diabetes, ending her dream of becoming a detective.

2

As a Puerto Rican descendent born in New York, she learned how to speak Spanish before struggling to learn English.

3

On August 8, 2019, Sonia Sotomayor became the first Latina to assume the role of Associate Justice to the Supreme Court.

Answer these questions after doing some research.

1. Fix the false statement so that it is now true.

The lie is number 3. Sonia Sotomayor assumed the role of Associate Justice to the Supreme Court on August 8, 2009, not in 2019.

2. Choose a fact about Sonia Sotomayor you think is important.

Student answers will vary.

3. Explain why you chose that fact to share.

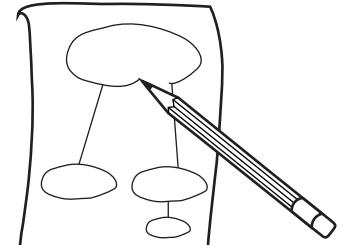
Student answers will vary, but should discuss the fact they chose for number 2.

4. On a separate sheet of paper, write a paragraph about Sonia Sotomayor using more than two sources for information (like a website and an article). **Student answers will vary.**

Name: _____ Date: _____

Answer Key

Frayer Model



Directions: Write your vocabulary word in the "Vocabulary Term" oval. Complete the rest of the sections for the vocabulary term in your own words.

Definition:

- It's the central idea of the text.
- What the text is mostly about.
- The gist of the text.

Sentence:

- Every paragraph and non-fiction text has a main idea.
- Every main idea should have supporting details.

Vocabulary Term:

Main Idea

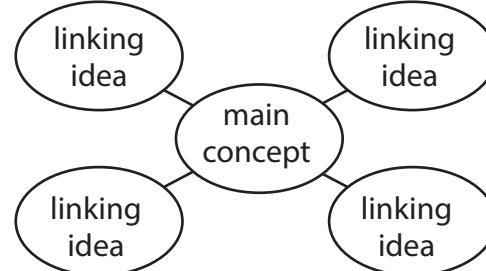
Examples:

- Main Idea: sports teams
- Football, basketball, softball

Non-Examples:

- A fact
- A stand-alone detail
- A group of details related to one topic

Image Representation:



Answer Key

Missing Digits: Addition and Subtraction

Directions: Find the missing digits in the following problems. Place your answers in the boxes provided.

$$\begin{array}{r} 1. \quad 2 \boxed{3} 5 6 \\ + \quad 2 \boxed{4} 1 \\ \hline \boxed{2} 5 9 7 \end{array}$$

$$\begin{array}{r} 2. \quad \boxed{6} 8 6 \\ - \quad 3 4 \boxed{7} \\ \hline 3 \boxed{3} 9 \end{array}$$

$$\begin{array}{r} 3. \quad 7 9 6 \\ + \quad 3 \boxed{8} \boxed{4} \\ \hline 1 \boxed{1} 8 0 \end{array}$$

$$\begin{array}{r} 4. \quad 3 7 2 \\ - \quad 5 \boxed{6} \\ \hline 3 \boxed{1} 6 \end{array}$$

$$\begin{array}{r} 5. \quad 4 \boxed{7} \boxed{5} \\ + \quad 3 9 \boxed{5} \\ \hline \boxed{8} 7 0 \end{array}$$



Timeline of Sonia Sotomayor's Life (So Far)

Sonia Sotomayor is the first Latina Supreme Court Justice in United States history.

The Supreme Court is the highest court in the country, meaning its decisions on court cases are final. The Justices are nominated by the President and serve a lifetime appointment after the Senate approves their nomination.

Directions: Use the timeline about Sonia Sotomayor's life to answer questions about her.

1. What event happened after Sonia Sotomayor joined the law firm of Pavia & Harcourt?

She became a judge in the Southern District of New York in 1992.

2. How many years was Sonia Sotomayor a lawyer before becoming a judge?

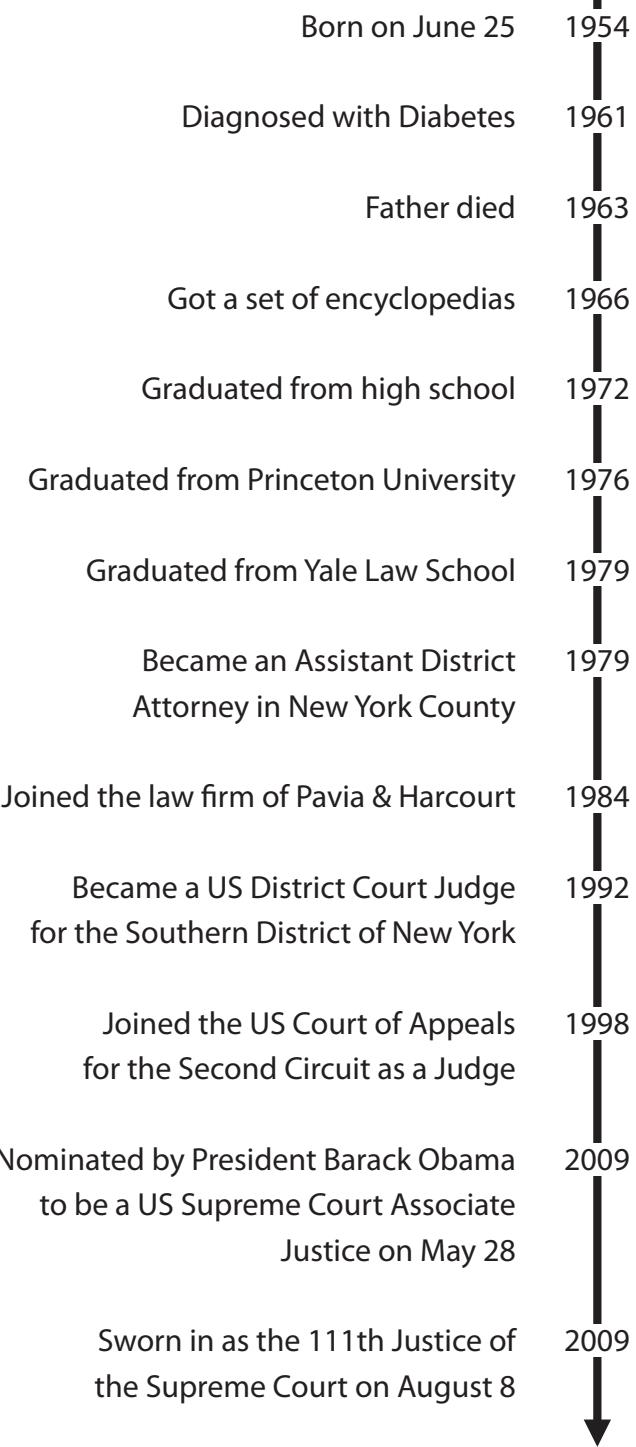
She was a lawyer from 1979 to 1992 when she became a judge. She was a lawyer for 13 years.

3. In what year did Sonia Sotomayor become a judge in the Southern District of New York?

She became a judge in the Southern District of New York in 1992.

4. What do you wonder about Sonia Sotomayor that you cannot find on the timeline?

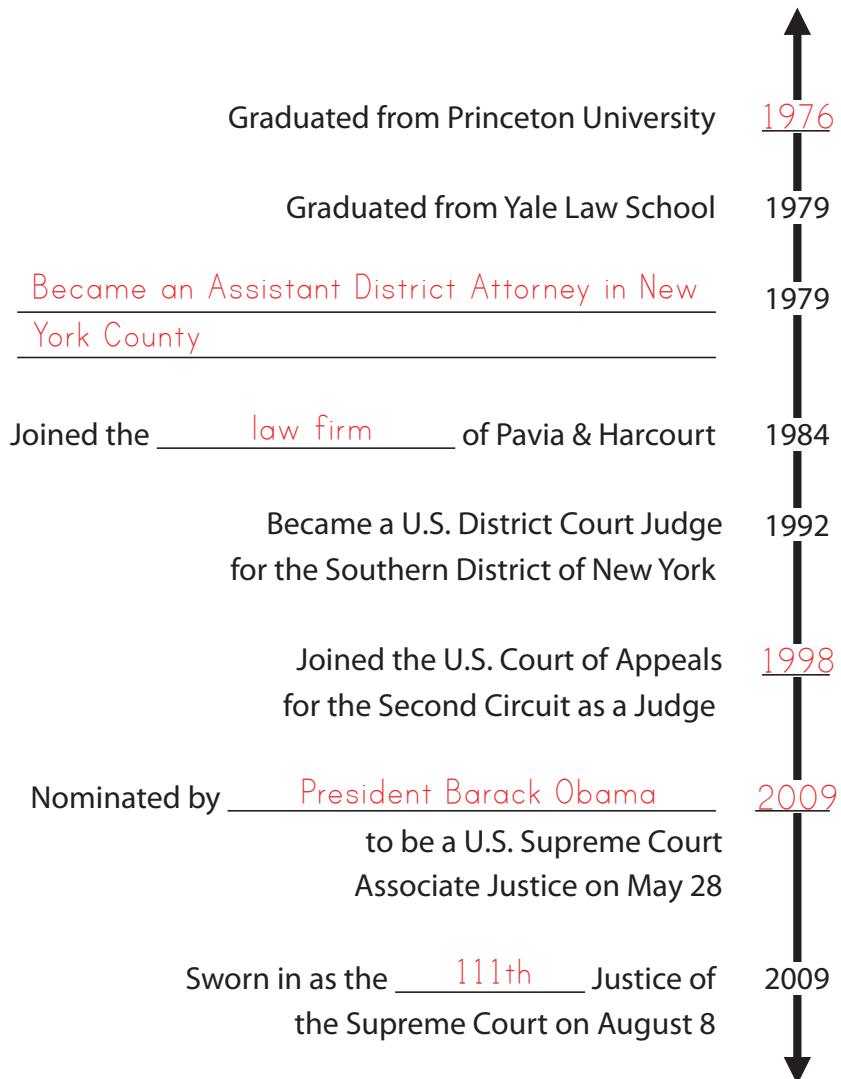
Student answers will vary.





Timeline of Sonia Sotomayor's Life (So Far)

4. Write on the lines the missing information from this piece of the timeline.



5. Do some research about Sonia Sotomayor. What events would you like to add to the timeline? What events would you eliminate? Explain your choices.

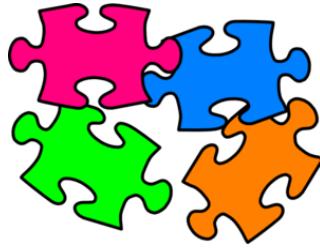
Student answers will vary.

Answer Key

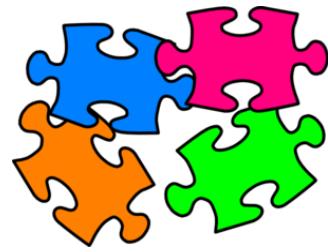
Recognize a Fragment When You See One!

Read each example below. Circle whether it is a sentence or fragment. If it is a fragment, make revisions to turn it into a complete sentence.

After the doctor examined the broken arm, which was broken in two places.	Sentence Fragment
FIX: After the doctor examined the broken arm, which was broken in two places, he put a cast on it.	
During the baseball game, in the third inning to be exact.	Sentence Fragment
FIX: During the baseball game, in the third inning to be exact, she hit a homerun.	
We took the short way to get to the store.	Sentence Fragment
FIX: No fix necessary.	
His ex-girlfriend Samantha, the one he dated five years ago.	Sentence Fragment
FIX: His ex-girlfriend Samantha, the one he dated five years ago, just got married.	
A meteor from a galaxy 67 light years away.	Sentence Fragment
FIX: A meteor from a galaxy 67 light years away just landed in the Indian Ocean.	



Math Crossword Puzzle Answer Key



Fill in the blanks of each crossword puzzle to make the division equations true.

64	\div	8	$=$	8	
\div				\div	
2	\div	1	$=$	2	
$=$				$=$	
32	36	\div	4	$=$	9

54	\div	2	$=$	27
\div				\div
6	\div	2	$=$	3
$=$				$=$
9				

144				36	\div	18	$-$	2	
\div				\div	\div	\div			
12	81	\div	9	$=$	9				
$=$				$=$	$=$				
12	\div	3	$=$	4	2	\div	1	$=$	2

**Answer
Key****Informational Writing: Linking Ideas**

Why are Linking Words and Phrases important?

- They introduce new ideas.
- They connect key information (facts and details) in our writing by showing:

-Time order	-Compare and Contrast
-Examples	-Emphasis
-Additional information	-Conclusions

Directions: Based on the other transitions in the passage, choose a good transition word to use in each blank. Circle the best transition and write it on the line.

1. Tornado safety is important because this violent weather event commonly occurs in the spring. First, pay attention to the local news and weather apps on your phone.
- Next, be sure to have a safe place to go in the case that a tornado warning has been issued for your area. Also, follow the warnings. Many people ignore the warnings, which puts them in danger. To Sum it up, tornado safety is very important, especially for people who live in Tornado Alley where most tornadoes occur.
2. There are many reasons that rain is an important part of weather. For instance, rain is necessary for plants and grass to grow. Without rain, plants and flowers would die.
- Also, rainfall fills streams, rivers, and lakes. This is where humans get water that is clean to use and drink. In addition, the rain that fills the streams, river, and lakes is important for the living organisms there. If there was no rain, their homes would dry up. In conclusion, while rain can be annoying to deal with, Earth's living creatures depend on it.



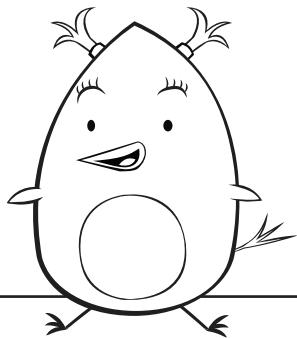
Awesome Articles



Articles are the words **a**, **an**, and **the**. They are a type of adjective because they tell whether the noun that comes after it is a specific object or an undefined one. If you want to refer to something specific you use **the**, as in “I want **the** book.” If you want to say that any book will do, you say, “I want a book,” because it doesn’t matter which book. If the noun afterward starts with a vowel sound, rather than using **a**, use the article **an**.

When referring to a specific noun:

The game
The ball
The apple
The teacher
The invitation



When referring to a noun that is not specific:

A game
A ball
An apple (the noun starts with a vowel sound)
A teacher
An invitation (the noun starts with a vowel sound)

Now, examine the quotes from the Newbery Medal winning book *Bud, Not Buddy* by Christopher Paul Curtis. In each one, circle the articles (**a**, **an**, **the**) and underline the noun that they are describing. The first one is done for you.

“There comes a time when you're losing a fight that it just doesn't make sense to keep on fighting. It's not that you're being a quitter, it's just that you've got the sense to know when enough is enough.”

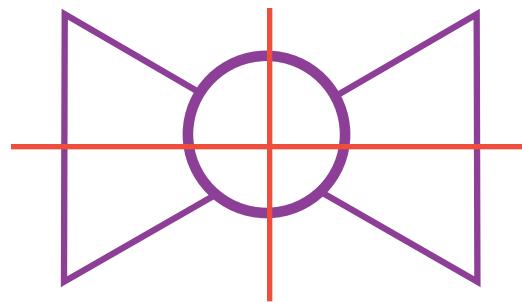
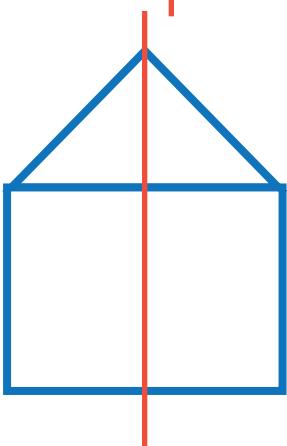
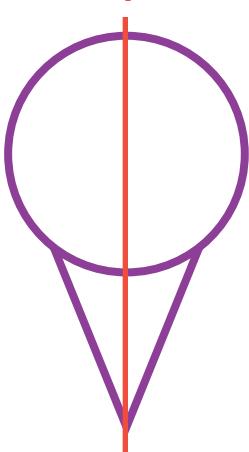
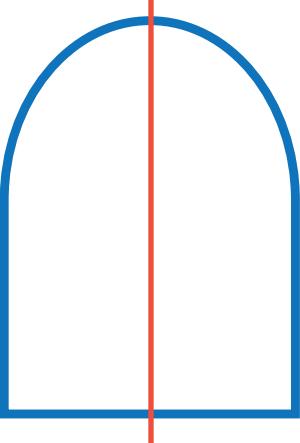
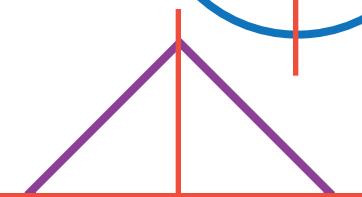
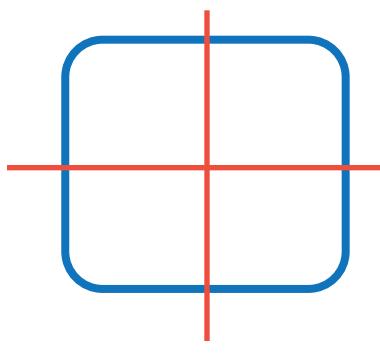
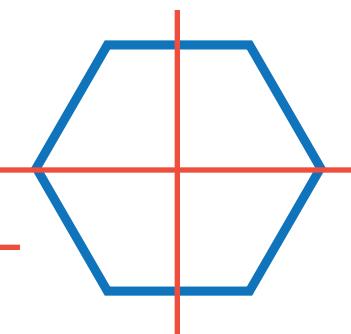
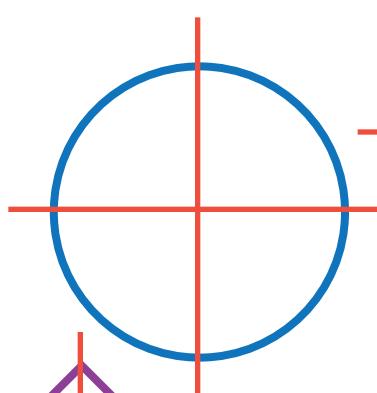
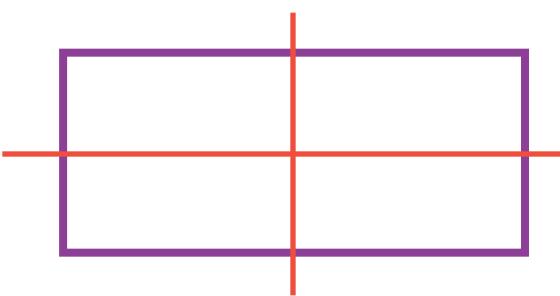
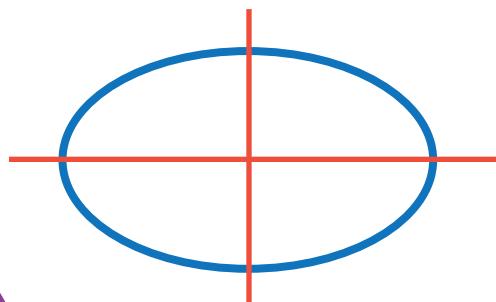
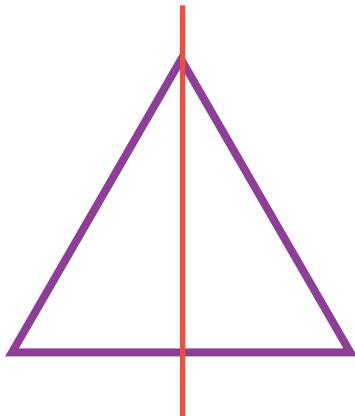
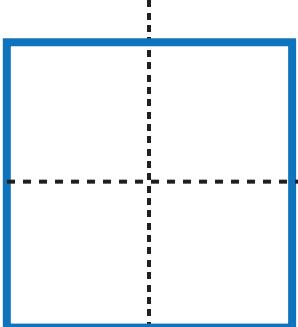
“A bud is a flower-to-be. A flower in waiting. Waiting for just the right warmth and care to open up. It's a little fist of love waiting to unfold and be seen by the world. And that's you.”

“As soon as I got into the library I closed my eyes and took a deep breath. I got a whiff of the leather on all the old books, a smell that got real strong if you picked one of them up and stuck your nose real close to it when you turned the pages. Then there was the smell of the cloth that covered the brand-new books, books that made a splitting sound when you opened them. Then I could sniff the the paper, that soft, powdery, drowsy smell that comes off the page in little puffs when you're reading something or looking at some pictures, kind of hypnotizing smell.”

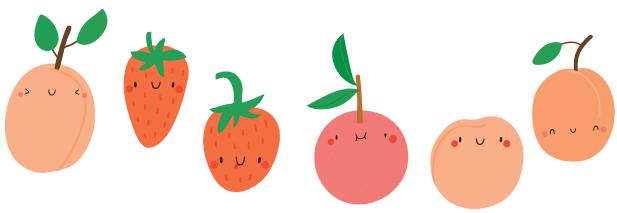
Your Half, My Half Answer Key

Can you draw a line to divide these shapes in half evenly?

Some shapes can be divided two different ways.



SORTING OUT ADVERBS



DIRECTIONS: Sort the adverbs from the word bank on page 1 into the graphic organizer below. Sort until you have found at least seven adverbs of each category.

PLACE	DEGREE	MANNER	TIME	FREQUENCY
above	completely	accidentally	finally	often
around	thoroughly	awkwardly	afterwards	never
away	much	angrily	again	weekly
below	super	foolishly	before	seldom
down	very	defiantly	early	rarely
here	totally	shyly	lately	occasionally
inside	little	quickly	soon	frequently
outside	entirely	well	then	always
there	almost	wildly	now	annually
up		gladly	recently	monthly
upstairs		happily		repeatedly
		hungrily		
		elegantly		
		cruelly		
		sadly		
		safely		



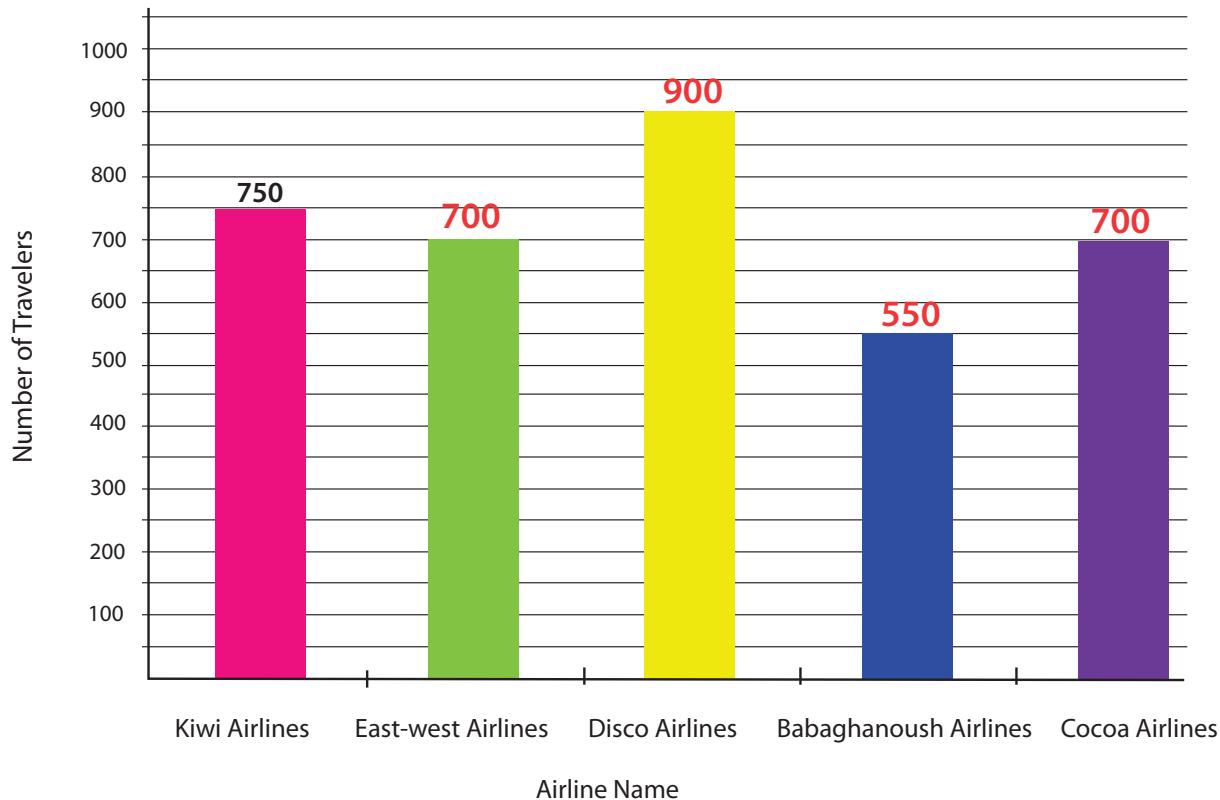
Answer Sheet

Go Abroad!: Practice Reading a Bar Graph

4th Grade

Read the records of travelers using airline services. Then answer the questions below. Show your work.

Number of travelers using airline services in January



1. What unit of measurement is used to express the airlines' popularity?

Number of travelers

2. Write a number at the end of each bar to indicate the number of travelers in each airline.

3. Are there any two airlines that have the same number of travelers? What are they?

East - west Airlines and Cocoa Airlines

4. If East-west Airlines had 250 more travelers, what rank would the Kiwi Airlines be?

Number 3

5. How many more travelers does the Babaghanoush airline need to be the top airline among these five?

351 more travelers

Reading for Comprehension: Following Directions

Directions: Can you follow the directions for this fun activity? Read the directions carefully, and then number the steps below in the correct order.

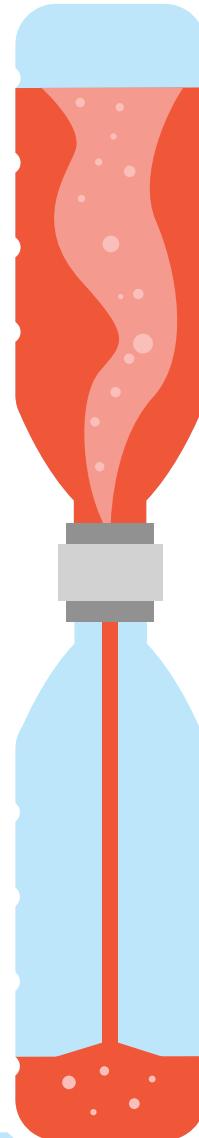
Have you ever seen a tornado on the news on television? They are really dangerous! But you can make a tornado safely in your own home. You'll need two plastic bottles, some glue, a large nail, water, food coloring, glitter, and some help from an adult.

First, get two plastic bottles with screw-on caps. Glue the caps together so the tops are back-to-back. Ask an adult to help you make a hole through the glued bottle caps using a large nail. Then, fill one bottle about three-quarters full with water. Add food coloring of your choice and some glitter so the tornado will be easy to see. After that, screw the double cap onto the bottle with water in it. Screw on the empty bottle at the top.

Next, see if your tornado works! Turn the two bottles upside down. Be sure to use both hands to hold the bottom bottle carefully. Move your wrists in a circular motion as if you were drawing circles in the air. This will turn the bottles, and the water inside the bottles will start to swirl. Now, you should see a tornado-like funnel form in the water. But don't worry! You don't need to take shelter with this tornado.

Directions: Put the steps below in order. Use numbers 1–10 to show the sequence.

- 5 Add food coloring and glitter.
- 2 Glue the caps together.
- 6 Screw the double cap on the bottle with water.
- 9 Move the bottles in a circular motion to make the water swirl.
- 10 Watch the tornado-like funnel form in the water.
- 3 Use a large nail to make a hole in the caps.
- 7 Screw the empty bottle on top.
- 4 Fill one bottle until it is about $\frac{3}{4}$ full with water.
- 1 Find two plastic bottles with screw-on caps.
- 8 Turn the double bottles upside down.



Answer Key**Mixed Review Language Arts Assessment**
Let's Soar in Grade 4**Directions: Record the parts of each prepositional phrase below.**example: Sarah sprinted down the hill.Preposition = down Object = the hilldown + the hill = down the hill

1. I cleaned during the commercials.

Preposition = during Object = the commercialsduring + the commercials = during the commercials

2. I have homework on the weekends.

Preposition = on Object = the weekendson + the weekends = on the weekends

3. My mom is cheerful in the morning.

Preposition = in Object = the morningin + the morning = in the morning**Directions: Use context clues to choose a compound word to complete each sentence.****WORD BANK**

blockbuster

gatekeeper

freshwater

greenhouse

4. The animated film that was released by Fun Films last fall was a blockbuster.5. At least one gatekeeper stands guard at the castle at all times.6. There are freshwater fish in Lompoc Lake.**Directions: Circle the hyperbole in each sentence.**example: She cried a river of tears.

7. I'm so hungry I could eat a horse.

8. They have a ton of money.

9. My feet are killing me.

Directions: Read each sentence and underline the two words that can be combined to make a contraction. Write the contraction on the line.10. I know he will return to his car on time.he'll11. Ellie did not want to take the exam.didn't**Directions: Underline the words that need to be capitalized. Then, rewrite each sentence using correct capitalization.**12. On july 4, 1776, the declaration of independence was issued.On July 4, 1776, the Declaration of Independence was issued.13. The mississippi and missouri rivers combine to form the longest river system in the U.S.The Mississippi and Missouri Rivers combine to form the longest river system in the U.S.

Bag O' Stuff: Cards



There is a bag of items.

Answer the questions using the pictures of what's in the bag.

1. What is the probability of pulling a **card of hearts** out of the bag?

$$\underline{\underline{5/20 = 1/4}}$$

2. What is the probability of pulling a **black card** out of the bag?

$$\underline{\underline{10/20 = 1/2}}$$

3. What is the probability of pulling an **Ace** out of the bag?

$$\underline{\underline{4/20 = 1/5}}$$

4. What is the probability of pulling a **red four** out of the bag?

$$\underline{\underline{2/20 = 1/10}}$$

5. What is the probability of pulling either a **card of spades or clubs** out of the bag?

$$\underline{\underline{10/20 = 1/2}}$$

6. What is the probability of pulling a **three of diamonds** out of the bag?

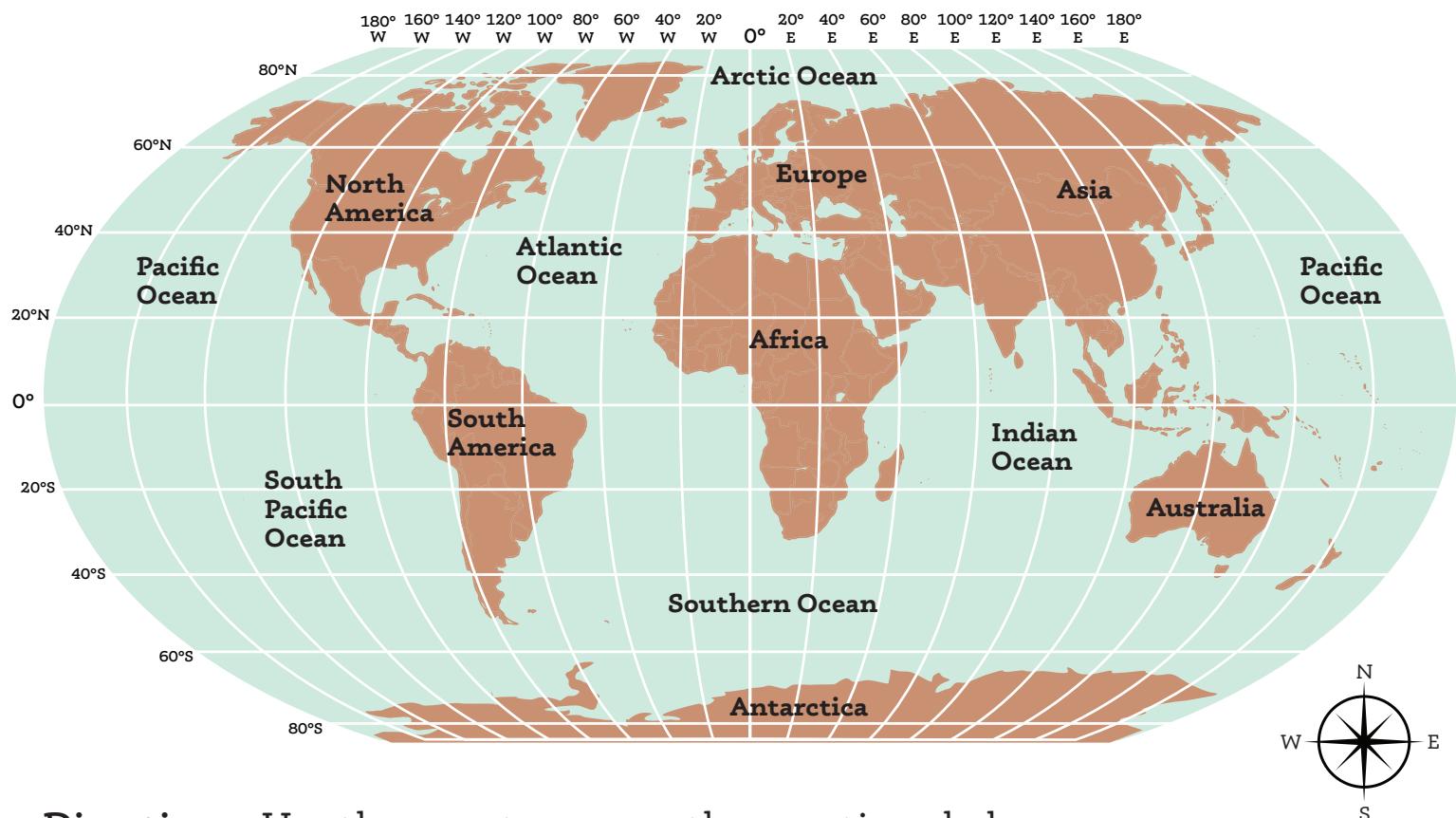
$$\underline{\underline{1/20}}$$

Latitude and Longitude Answer Key

What are latitude and longitude, and how do you use them?

Latitude: lines that run in an east to west direction across the Earth.
(Latitude degrees are measured as north and south.)

Longitude: lines that run in a north to south direction across the Earth.
(Longitude degrees are measured as east and west.)



Directions: Use the map to answer the questions below.

Example: What continent is at 20° south and 20° east? Africa

1. What continent is 40° north and 20° east? Europe

2. What ocean is found at 20° south and 100° east? Indian Ocean

3. What continent is at 20° south and 120° east? Australia

4. What ocean is at 40° south and 160° west? South Pacific Ocean

5. What continent is at 40° north and 100° east? Asia

Name _____

Date _____

Answer Key

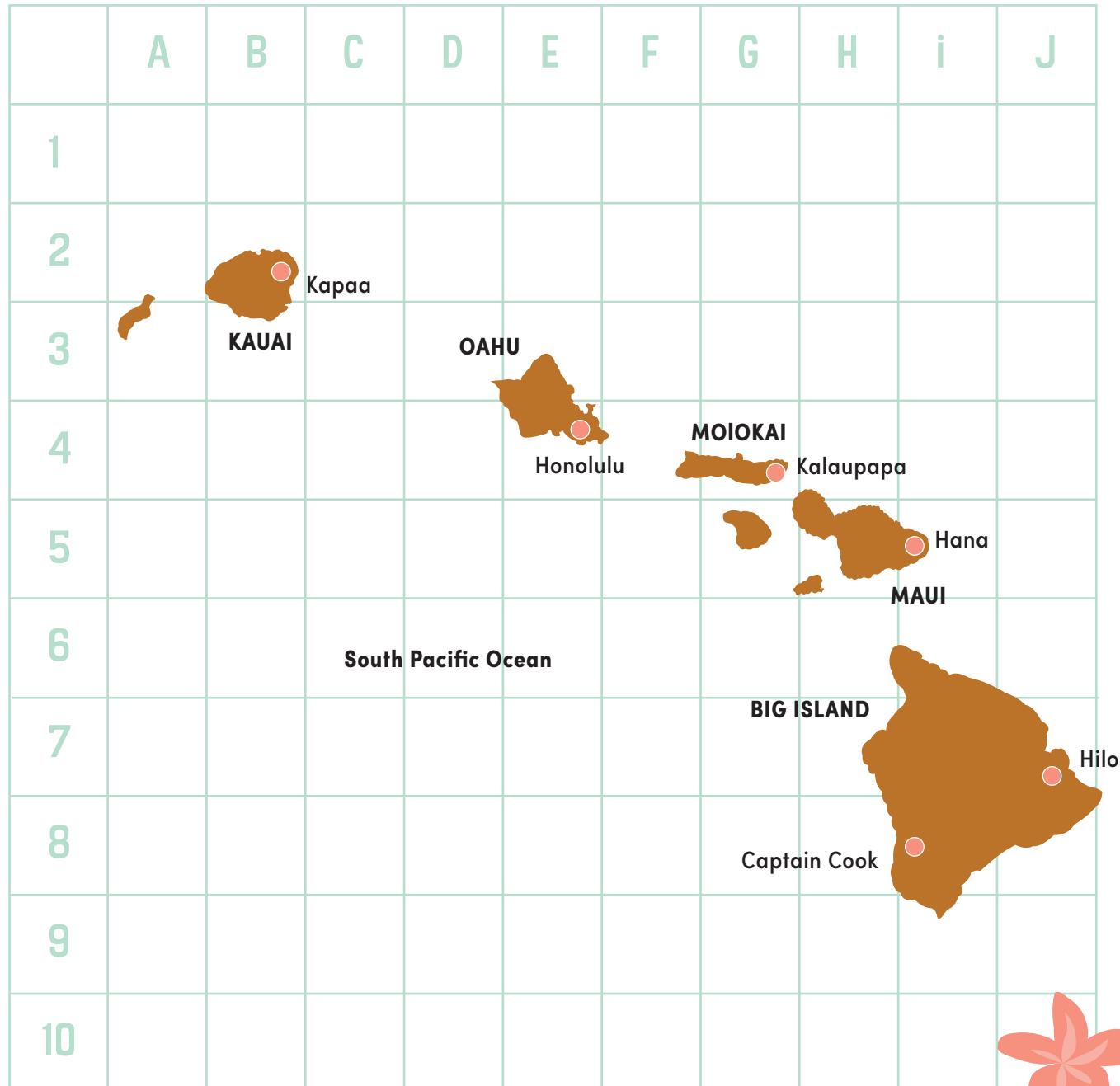
MAP GRID: HAWAII



Directions: Find each of these Hawaiian cities on the grid. Each city lies within a square that's named for the column and row that make up its sides. For instance, Hana is in column I, row 5, which means it is in square I5.

Honolulu: **E4**Kapaa: **B2**Captain Cook: **I8**Hana: **I5**Hilo: **J7**Kalaupapa: **G4**

ROW



Know the States

Use the map to answer the questions about the United States.



Which state is the smallest? Rhode Island

Which state borders only one other state? Maine

How many states have the word "New" in their names? 4
Write their names:

New York, New Hampshire, New Mexico, and New Jersey.

Use the map to answer the questions about the United States.

Which four states share one common corner?

Hint: The corners meet in a shape of a +.

Utah

New Mexico

Colorado

Arizona

Which state is directly east of North Dakota? **Minnesota**

Which state is directly west of North Dakota? **Montana**

Which state is directly north of Tennessee? **Kentucky**

Which state is directly south of Iowa? **Missouri**

Which two states are separate from the continental U.S.?

Hawaii

Alaska

Which states border West Virginia?

Virginia

Pennsylvania

Kentucky

Maryland

Ohio

Which states border Arkansas?

Louisiana

Missouri

Texas

Tennessee

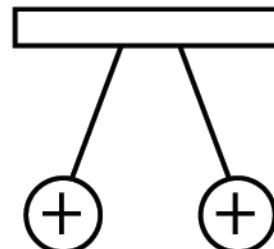
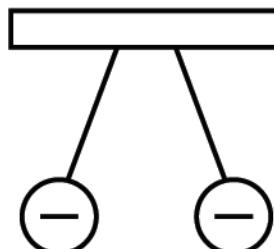
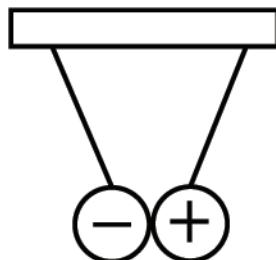
Oklahoma

Mississippi

ESCAPING ELECTRONS!

An atom usually has the same number of protons and electrons, but the electrons can separate from atoms. You may have heard the expression "opposites attract". In the case of atoms, unlike charges attract each other and like charges repel each other. The attraction between like charges (positive + positive, negative + negative) causes the movement of electrons between two objects.

Answer Key



An object is neutral and has no charge when it has the same amount of protons and electrons. But when the object loses or gains electrons it becomes unbalanced, and electrically charged. If there are more protons than electrons, the object carries a positive charge. If there are more electrons than protons, the object carries a negative charge.

Some materials allow electrons to pass through more easily than others. **Conductors** hold onto electrons loosely. Electrons move easily through these materials. Metal is a good conductor.



Insulators hold onto electrons tightly. Electrons do not move easily through these materials. Plastic, cloth, and glass are good insulators.



Circle the word that makes each statement true.

An object with a positive (+) charge will **attract** **repel** an object with a negative (-) charge.

An object with a negative (-) charge will **attract** **repel** an object with a negative (-) charge.

An object that gains electrons will have a **positive** **negative** charge.

An object that loses electrons will have a **positive** **negative** charge.

Student answers will vary, but may include:

An **insulator** **conductor** **holds electrons tightly, so electricity does not flow through easily.**

All About Circuits

In this two page worksheet, you will learn about circuits, including what they look like, how they work, how to draw a diagram of them, and how to make one.

Circuits are all around us; they can be as simple as a battery connected to a lightbulb, and as complex as those found within computers. Circuits are like highways for electrons, which are particles that make up electricity. Electrons will always travel between positive and negative terminals of a power source, like a battery. Like people, electrons will never leave "home" unless they can get back; therefore, electrons will only flow through a circuit that has a complete path between positive and negative terminals. If the electrons don't flow, then power won't flow, and anything connected to the circuit will not turn on. In addition, electrons are lazy: they will always take the path of least resistance, or the easiest route between terminals. For example, if given the choice between a path with a lightbulb or a path without, they will take the path without the lightbulb.

Symbols used to represent circuit parts:

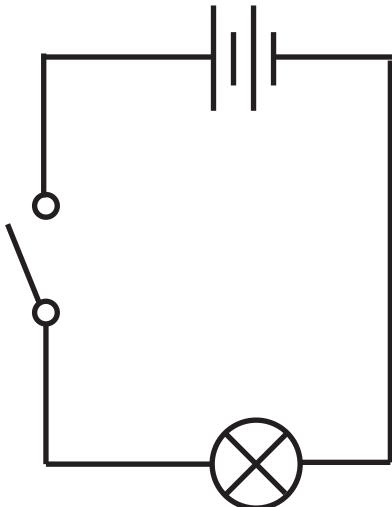
BATTERY: |||

LIGHTBULB:

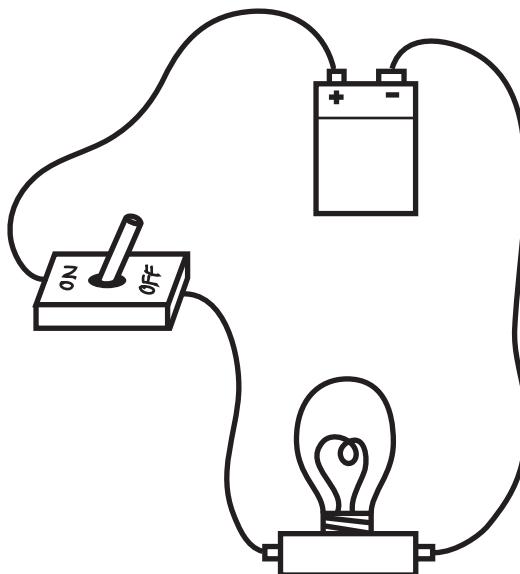
WIRE: —

SWITCH:

Circuit Diagram:

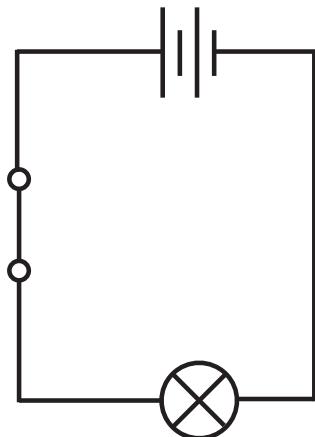


Drawing of Circuit:

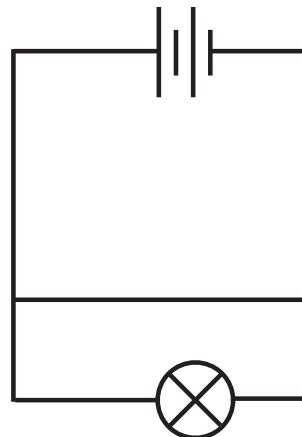


Will the Lightbulb Turn on?

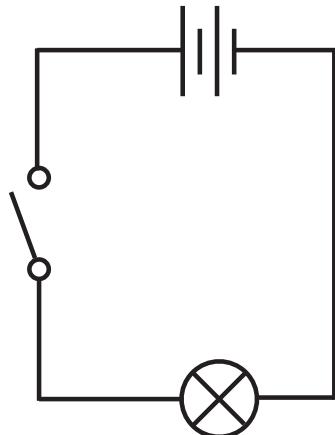
On this second page, specify whether you think the lightbulb in each circuit will be on or not. The first two circuit diagrams are examples.



The lightbulb in this circuit will be on because the switch is closed, allowing electricity to flow through it to the lightbulb.

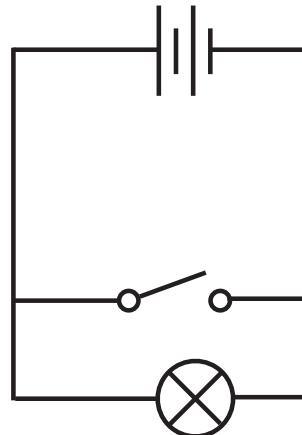


The lightbulb in this circuit will not be on because there is another wire bypassing the lightbulb, and since electricity takes the path of least resistance, it will not pass through the bulb and turn it on.



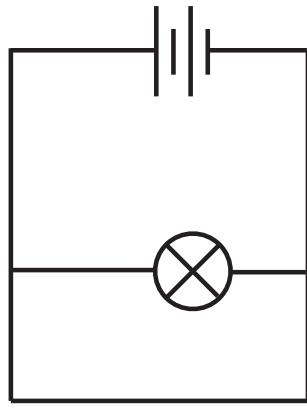
A

No



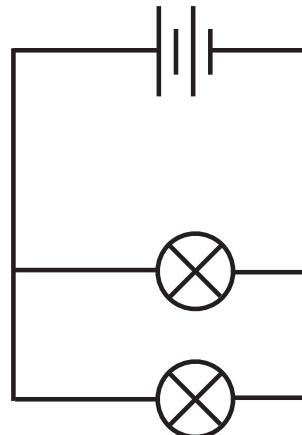
B

Yes



C

No



D

Yes

NIKOLA TESLA

Sample Answers

Nikola Tesla is considered a true pioneering scientist whose work was ahead of its time. He did many experiments with electricity and made several groundbreaking discoveries about how it works and how it can be used.

Born in what is now Croatia in the mid-1800s, Tesla was always a curious and intelligent person. He attended university where he studied math and science. While in school, he came up with the idea for a new kind of motor and was hired by electric companies across Europe to improve their machines. It was there that he began forming the idea for the alternating current – AC. At age 28, he moved to New York City and was hired by Thomas Edison. However, Tesla and Edison had different ideas about how electricity should be used and ended up becoming rivals in the “War of Currents,” a debate over which type of electricity should be used. Tesla was in favor of AC, but Edison thought DC was better. In the end, Tesla’s AC triumphed – AC is now the standard form of electricity delivered to homes and businesses.

Tesla is remembered for conducting experiments on a grand scale and for his eccentric ideas, which, though considered outlandish at the time, led to important discoveries. Tesla’s legacy is everywhere: not only are all modern homes run on AC, but he paved the way for scientific research in hydroelectric power, radio, robotics, and wireless communication.

Name three places you might see electricity, wireless communication, or robotics today.

We can see electricity in homes and stores. Cell phones

and walkie-talkies use wireless communication.

We can see robotics used with self-propelled vacuums.

By the end of his life, Tesla held over 100 patents!

In the space below, design an invention that uses AC.

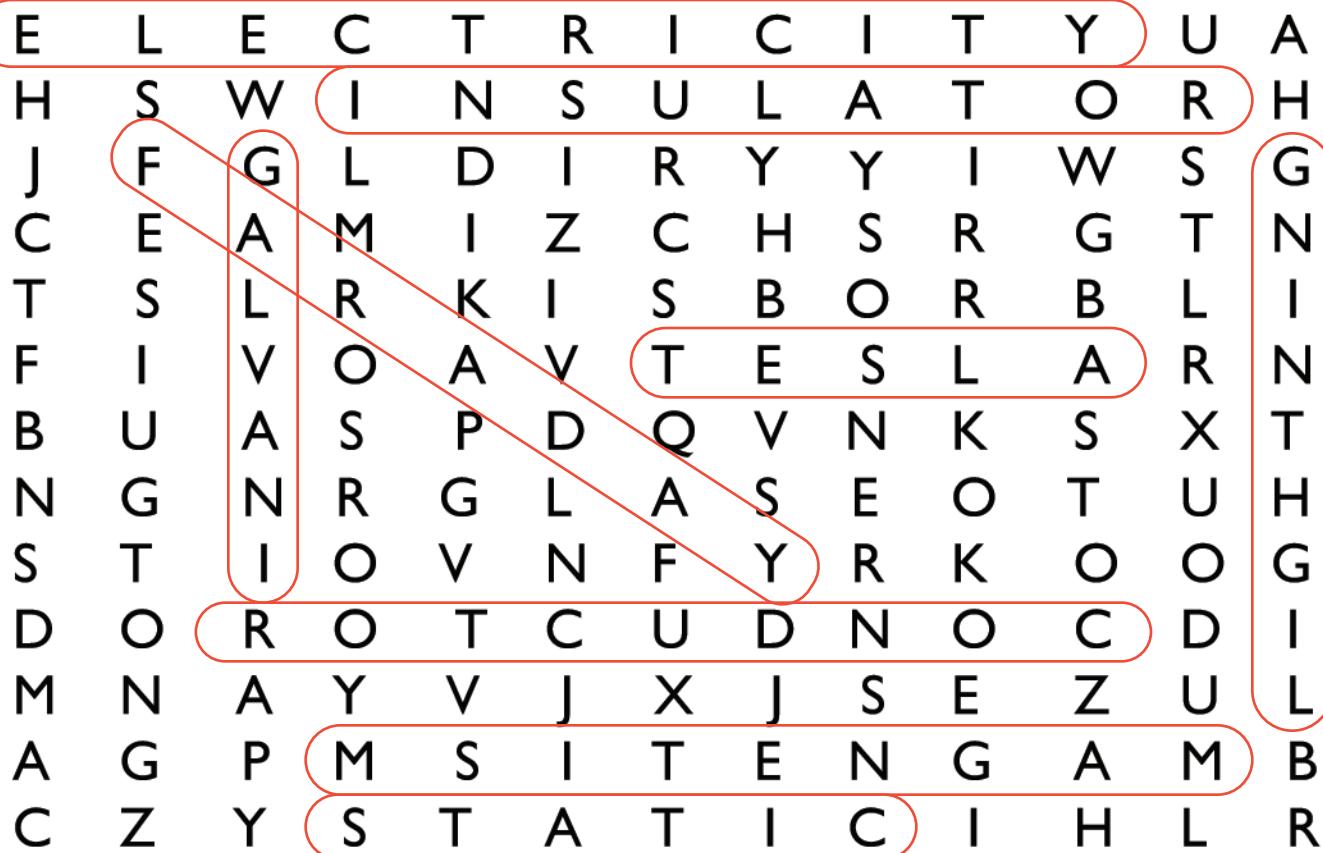
Student answer will vary.



ELECTRIFYING WORD SEARCH

Find the words related to electricity and magnetism in the word search below!

Answer Key



WORDS

INSULATOR

FARADAY

STATIC

ELECTRICITY

MAGNETISM

GALVANI

TESLA

LIGHTNING

CONDUCTOR

