

Week 1

5th
Grade

Independent Study Packet



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

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ANSWER KEYS
INCLUDED

Helpful Hints for Students and Families

Materials You Will Need:

- Pencils
- Folder
- 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

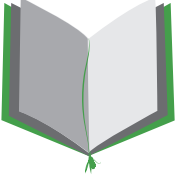




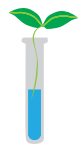


Directions & Tips



- 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.
- Read the directions carefully before completing each activity.
- Check off each of the activities when you finish them on the menu.
- Make sure to plan your time so that you don't let things pile up at the end. Ask an adult to sign your activity menu before you bring it back to school.

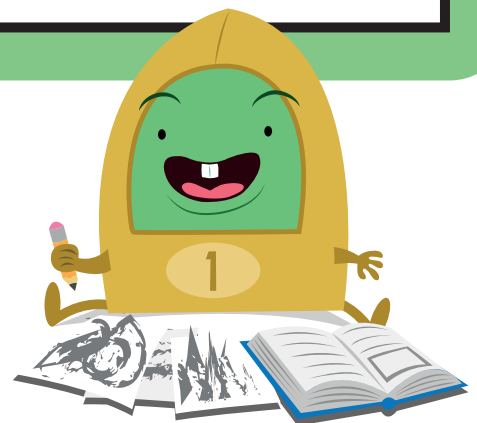
Activity Menu

	Day 1	Day 2	Day 3	Day 4	Day 5
Reading 	Read for 20 minutes and answer 3 of the questions on the sheet on another piece of paper or in a journal. Challenge: Try not to repeat a question! Independent Reading Questions				
	Compare characters based on their descriptions.	Read about plays.	Read a screenplay.	Read a fictional text and make inferences.	Read two texts about the brain and color in the parts of the brain.
Writing 	Persuade people to like your emoji creation.	Write a play.	Write a screenplay.	Write a story using different types of sentences.	Use a Venn Diagram to compare two nonfiction reading texts.
Grammar Practice 	Find the meanings of words using context clues in sentences.	Practice spelling with a crossword puzzle.	Use quotation marks in a story.	Determine which sentence is complete or a fragment.	Complete a Frayer Model with a word that describes a part of the brain.
Math 	Calculate the time in different time zones in the United States.	Create different equations using the same four numbers.	Practice the order of operations.	Practice making conversions using liquid measurements and visuals.	Follow place value clues to discover the mystery number.
Social Studies 	Focus on states in the United States and their locations this week.				
Science 	Read about matter, gravity, sun energy, plants, and ecosystems this week.				

Parent/Guardian Signature: _____

Day 1

Reading	Complete the worksheet Read & Compare Character Traits . Make sure to use the text to fill in the graphic organizer.
Writing	Get your creative juices going in the Design Your Own Emoji worksheet. Feel free to add colors to your emoji creations.
Grammar Practice	Put your knowledge of words to the test with this Using Context Clues worksheet. Underline or circle the context clue you used to choose your answer.
Math	Calculate the time in different time zones in this 50 States Time Zones worksheet.



Name: _____

Date: _____

Read & Compare Character Traits

Directions: Read about the two characters below. Highlight words and phrases that show their external and internal traits. Then, compare them using the double bubble chart on the next page.



Sasha is a 10-year-old girl. She is in fifth grade at Northgate Elementary School. Sasha has short, curly hair and brown eyes.

Sasha has lots of friends at school. She is always very talkative and sometimes it gets her in trouble in class. But she is a smart student and a kind classmate, so she is never in trouble for long. Her teacher understands that she is just being friendly.

Today in class, Sasha's teacher, Ms. Hammond gave a math test. Sasha felt confident that she did well on the test. Math is her favorite subject. She took the test quickly and then started talking to her friend, Gabby. "Shhh!" Ms. Hammond scolded.

After school, Sasha always goes to her parents' restaurant. She tries to be helpful since her parents are very busy. Usually she sweeps the floors and fills ketchup containers. Finally, when it's time for dinner, Sasha gets to pick something from the menu. Her favorite thing to eat at the restaurant is wat with injera, which is a type of stew served with bread.



Anil is a fifth grader at Northgate Elementary. He'll be turning 11 next month. Anil has curly, black hair and hazel eyes.

Anil is very quiet in class, but he enjoys talking with his best friend, Grant, during recess. Some people think that Anil is unfriendly, but Grant knows that he is just shy.

Today Anil took a math test in class. He felt very nervous. Even though he is a smart kid, he doesn't like math very much. He prefers to read and write. In fact, Anil hopes to be an author one day so he can write books of his own.

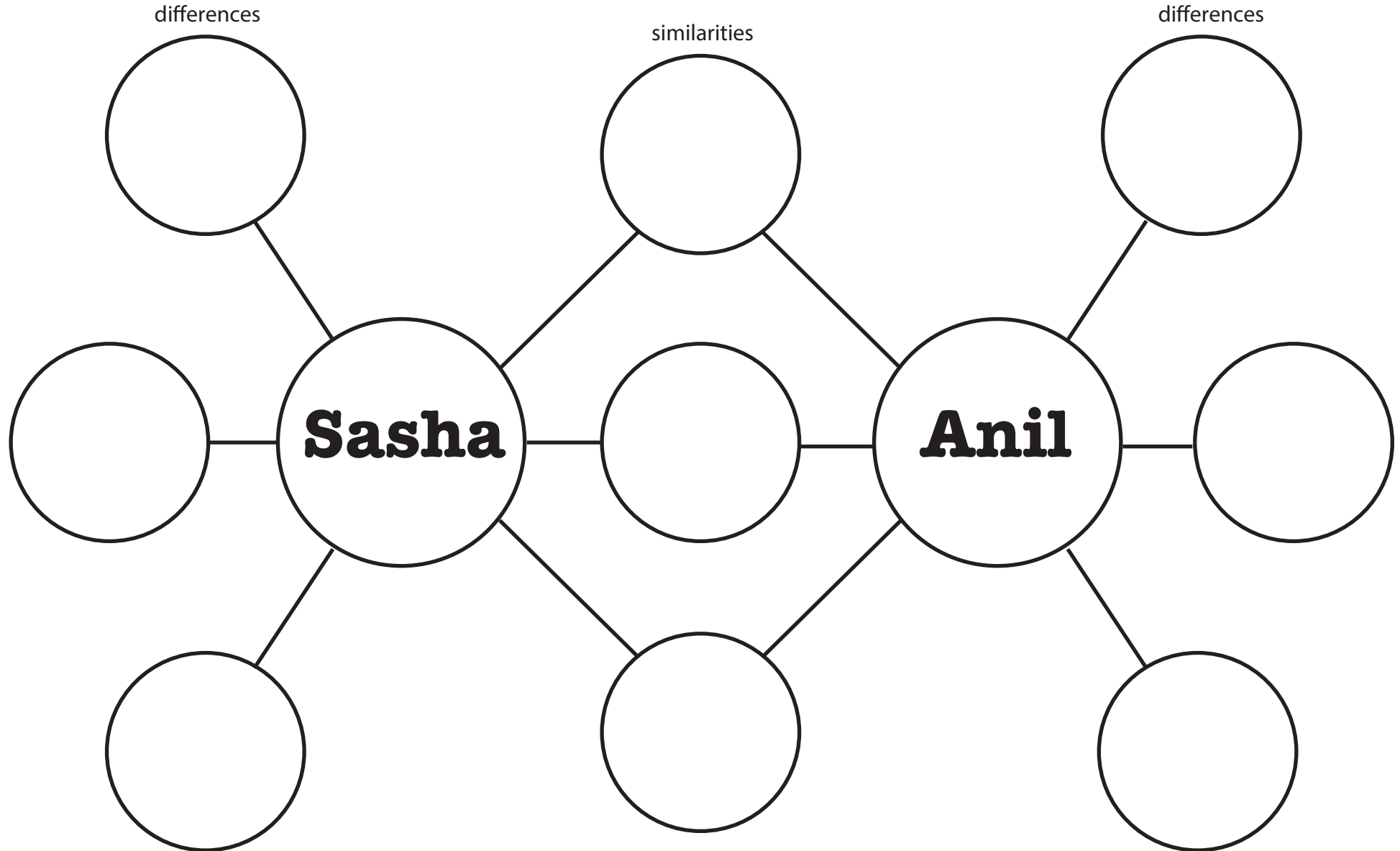
After school, Anil has piano lessons. He is a very talented musician. Then, he goes home to babysit his little brother and sister. His dad works at night, so Anil has to be helpful around the house. When his mom gets home, he helps make dinner. Tonight they are having kibbeh, which is made from meat, grains, and spices.

Name: _____

Date: _____

Read & Compare Character Traits

Directions: List three traits Sasha and Anil have in common and three traits that are unique to each character.





Design Your Own Emoji



Learn how emojis are selected and designed – then use good design principles to create your own!

Every year, the Unicode Consortium, a group of tech companies and volunteers with backgrounds in coding, technology, and linguistics, approve about 50 to 100 emojis from thousands of ideas submitted from people all over the world.

What does it take to become an emoji? In order for the panel to consider it, the emoji must be one that can be used often, as well as one that is different from existing emojis. The design should not be overly specific (it can't be an individual person), but it also should not be too detailed.

With these perimeters in mind, what emoji would you suggest to the Unicode Consortium, and how would you design it? Use the space below to draw the emoji, then write an argument for why the Unicode Consortium should consider it.

Note: Be sure to visit unicode.org/emoji/charts/emoji-list.html to review the emojis already in existence.

My proposed emoji:

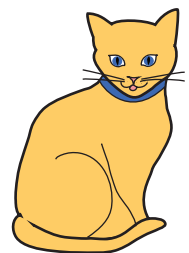
Why Unicode should consider adding this emoji:

Using Context Clues

Name: _____

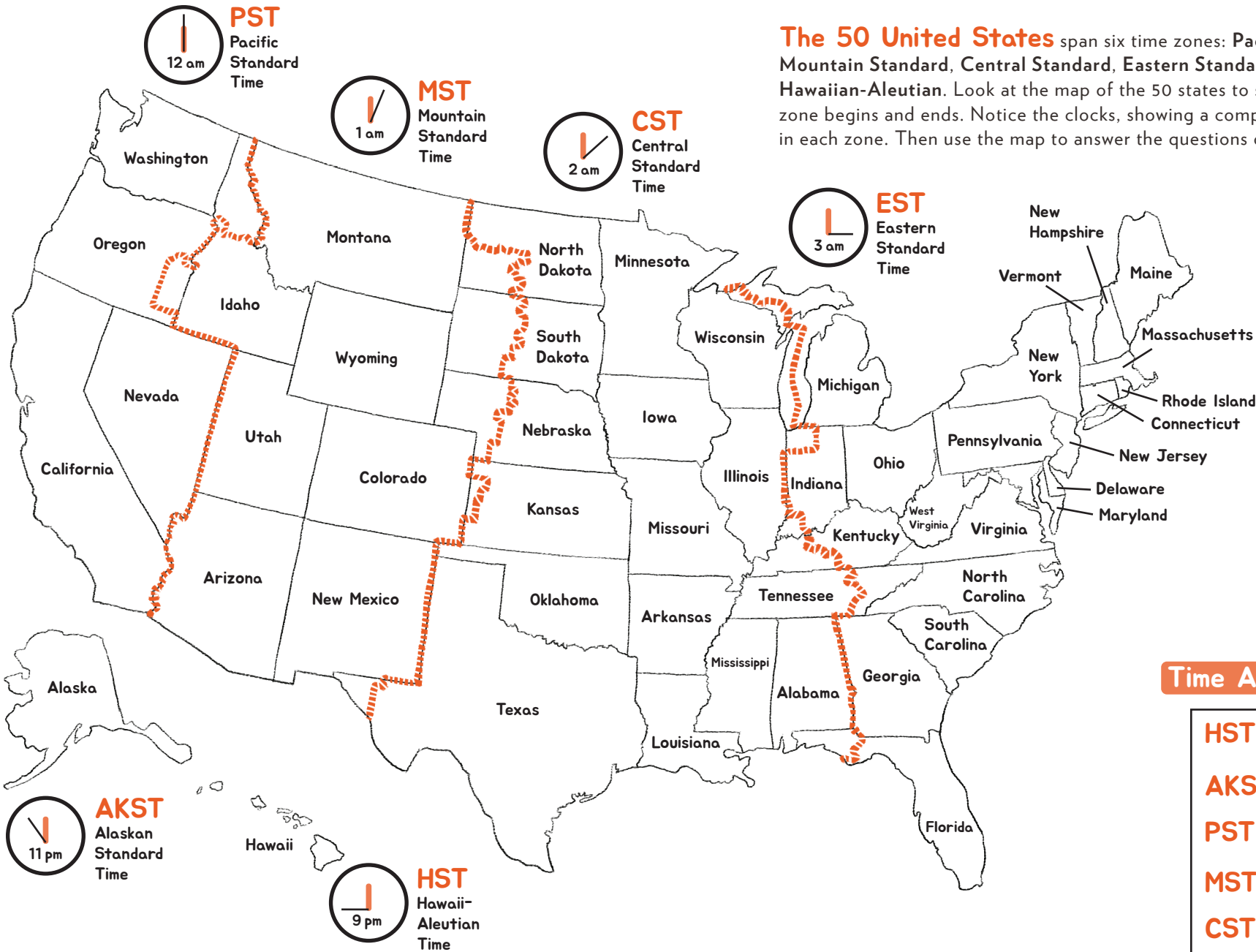
Instructions: Sometimes when reading, we come across a word that we don't quite know the meaning of. Sometimes looking up the word in the dictionary is an option, and sometimes it's not. Use the context clues in the sentence to find the meaning of unknown words.

1. The coach **admonished** her for picking daisies when she should have been defending the goal.
a. Criticized b. Praised c. Listened
2. He tried to **perturb** his sister by putting his foot closer and closer to her side of the car.
a. Congratulate b. Irritate c. Question
3. She showed great **proress** in the engineering competition and won first prize.
a. Anxiety b. Patience c. Skill
4. I don't wish to **impede** your progress, I was merely trying to make sure you understand the instructions.
a. Slow b. Improve c. Exaggerate
5. He just had to get back at the other player; he was quite **vindictive**.
a. Loving b. Thoughtful c. Resentful
6. The **onslaught** of dishes came right after the party of 18 left the restaurant.
a. Handful b. Invasion c. Trickling
7. The cat had some **trepidation** as it passed the dog's kennel.
a. Confidence b. Hunger c. Unease



50 States Time Zones

The 50 United States span six time zones: Pacific Standard, Mountain Standard, Central Standard, Eastern Standard, Alaskan, and Hawaiian-Aleutian. Look at the map of the 50 states to see where each time zone begins and ends. Notice the clocks, showing a comparison of the time in each zone. Then use the map to answer the questions on the next page!



Time Across Zones

HST	12 pm
AKST	2 pm
PST	3 pm
MST	4 pm
CST	5 pm
EST	6 pm

50 States Time Zones

Use the time zone map on the previous page to answer the questions below.

1. Daniel and Jody are flying to Massachusetts for a wedding. If their plane leaves California at 7:00 a.m. PST and lands in Massachusetts at 3:30pm EST, what time will it be in California when they arrive?
2. Carrie took a 24-hour train ride from Colorado to Illinois. If she arrived in Illinois at 2:45pm CST on Wednesday, when she did she leave Colorado?
3. If a live New Year's Eve TV special begins broadcasting at 10:00 pm EST in New York, what time should viewers in Oregon tune in?
4. Chance wants to wish his cousin a happy birthday at 9:00am CST. Chance lives in Texas and his cousin lives in Ohio. What time will it be at his cousin's house when Chance calls to say happy birthday?
5. What time is it in Nebraska when the sun goes down in New York at 5:20pm EST?
6. Abel and his family are going on a road trip from Massachusetts to Alabama. The drive will take 18 hours. If they leave Massachusetts at 5:00am EST on Friday, what time will they get to Alabama?



Day 2

Reading

Learn more about plays with the **What is Drama? Worksheet**.

Writing

After reading the **What is Drama? worksheet**, challenge yourself to write your own play using guidance from this worksheet. You can even change a story you already wrote into a play.

Grammar Practice

Complete the **Fifth Grade Spelling Crossword Puzzle worksheet** to help you practice spelling. If you need help, use an online dictionary to confirm your spelling.

Math

Create equations using only the numbers in the **Lucky 13 Challenge worksheet**.



What is Drama?

A **drama** is also known as a *play*. This type of text is different from prose and poetry.

Characteristics of Drama:

- Tells a story and is divided into parts called **scenes**
- Written so that it can be performed as a play
- Includes story elements of fiction – setting, characters, plot
- **Cast of characters** that tells who will be in the play
- **Description of the setting** and what the stage should look like
- **Stage directions** tell the actors what to do, how to speak, and where to be on the stage
- Characters' **dialogue** tells the actors what to say

A **playwright** is someone who writes a drama or play.

Directions: Read the excerpt below and answer the questions that follow.

What Was That?

Cast of Characters

TATIANA
ELIAS
MIKAEL
DYANA

*

Scene One

On a hot afternoon in July, the smoke from an explosion rises into the sky. The kids stand in the middle of their street, staring. The kids are dirty, wearing clothes with holes in them. They all have backpacks on.

ELIAS (*pointing to the sky*)

Guys, do you see that?

MIKAEL

Oh, I definitely see that. But can you smell it?

DYANA (*plugging her nose*)

Oh, I definitely smell that. That's the worst odor I've ever smelled!

What happened? Where is that coming from?

TATIANA

I don't know, but I think we had better get out of here. This doesn't seem like the best place for four kids to be hanging out.

The kids turn and start walking quickly down the street, periodically looking back at the smoke in the sky.

* * * * *

Name _____ Date _____

1. How does a drama get its ideas across differently than prose, like a novel, or poetry?

2. How is drama different from other types of literature?

3. What do you notice about the formatting that makes a drama something that can be performed?

* * * * *

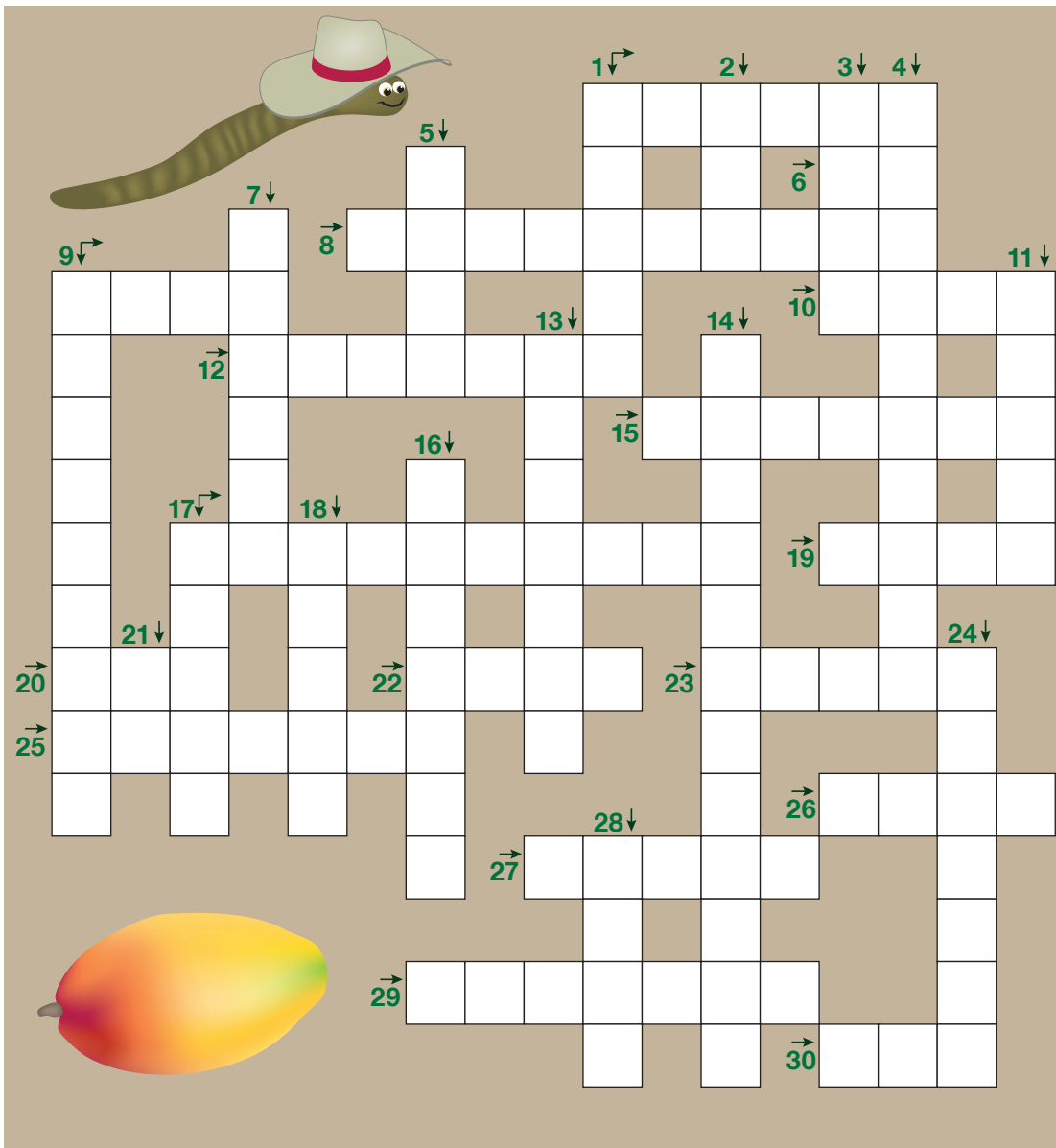
Challenge: On a separate sheet of paper, write your own play with:

- A cast of characters
- One scene
- Description of the setting
- Dialogue
- Stage directions

* **Remember:** A drama has the same story elements as a story. Your play should have a setting, characters, and a plot with a problem and solution.

Fifth Grade Spelling Crossword Puzzle

(Very hard!)

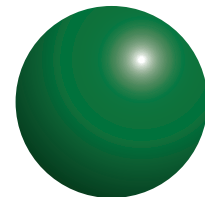


Down

- 1) quickness
- 2) belonging to him
- 3) water falling out of clouds
- 4) a test, such as in science
- 5) to jump
- 7) someone who tends to cows or horses
- 9) a long, slimy creature that lives in dirt and has no bones
- 11) not loose
- 13) jealous
- 14) the effect or result, usually negative, as in "You'll have to face the _____."
- 16) to ruin
- 17) a tart fruit that is red, orange, or yellow
- 18) fashion, or the way something is done
- 21) my friends and I
- 24) energized, stimulated, ready to go
- 28) the opposite of early

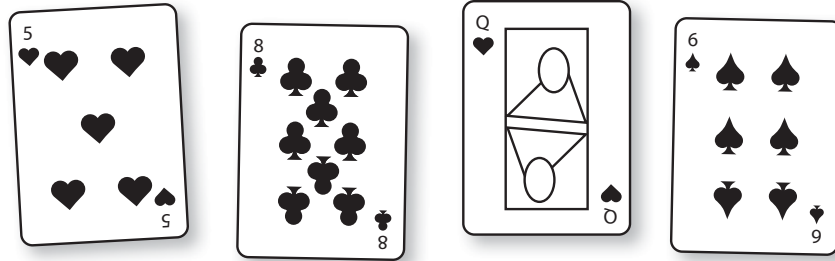
Across

- 1) a shape, like a ball
- 6) a tool used for chopping wood
- 8) guidance from the person in charge, a personal quality that a teacher should have
- 9) a repeated sound
- 10) orderly, clean, tidy
- 12) covered by something, such as a blanket or paper
- 15) the part of the day before noon
- 17) difficult to understand, scary, like a haunted house
- 19) to nap, to sleep, or a silent beat in music
- 20) to hold as property
- 22) a loud, dull sound, as in "That door sure makes a _____."
- 23) something someone said, exactly how she said it, as in a "famous _____."
- 25) normal
- 26) the front of something, such as a head
- 27) something empty, as in "Fill in the _____."
- 29) someone associated with another, such as in business or dancing
- 30) conclusion



Lucky 13 Challenge

The numbers from 1 to 13 can be formed using the four cards below (Queen = 12). You may use addition, subtraction, multiplication, division, place value, exponents, square roots, factorials, or even decimal points. The first two problems have been done for you. See how many you can find. Record your results below.



1 $(8 - 5) - (12 / 6) = 1$

8 _____

2 $(12 - 6) / (8 - 5) = 2$

9 _____

3 _____

10 _____

4 _____

11 _____

5 _____

12 _____

6 _____

13 _____

7 _____

Day 3

Reading

Take your knowledge of plays and use them in this Anatomy of a Screenplay worksheet. Take note of how a screenplay and play are the same or different.

Writing

Continue with the Anatomy of a Screenplay worksheet and write your own screenplay.

Grammar Practice

Complete the Writing Dialogue in *The Secret Garden* worksheet to help show dialogue between characters in a story.

Math

Use the worksheet Order of Operations to test your understanding of order of operations. Add missing parentheses for some of the problems.

Anatomy of a Screenplay

The screenplay, or script, is where a movie is born. It contains almost everything the actors and film crew need to bring the movie to life. What the actors say, what they do, how the camera moves, what the setting looks like—all this is in the screenplay.

If you've ever read a play, a screenplay will look familiar. Take a peek at an excerpt from the screenplay of *His Girl Friday*, written by Charles Lederer.



FADE IN: INT. ANTEROOM CLOSE SHOT SWITCHBOARD

Two telephone operators sit at switchboard busy plugging in and out answering calls.

1ST OPERATOR

Character

This is the Morning Post... The City Room? Just a moment, I'll connect you.
(plugs in call)

Dialogue

2ND OPERATOR

Character

Morning Post... Sports Department?
Just a moment --
(plugs in call)

Camera operating instructions

CAMERA PULLS BACK to disclose the rest of the anteroom. To Camera left are the elevators -- at back wall directly behind switchboard are chairs and a table for visitors.

Setting description

At a table sits an office boy, about fifteen, doing a crossword puzzle. The big clock on the back wall shows that it is nearly one o'clock.

Camera operating
instruction



CLOSE SHOT OFFICE BOY

as he bends over paper. We catch a glimpse of the squares of a crossword puzzle.

MED. SHOT

as a reporter comes out of the City Room, clanging the gate behind him. The office boy looks up.

● Actor's
instruction

OFFICE BOY

What's a seven-letter word for --?

REPORTER

Don't ask me! If I knew any seven-letter words, I'd be something better than a reporter!

He catches a glimpse of the far elevator going down.

REPORTER

Hey! Down! Down!

MED. SHOT ELEVATORS

as reporter runs into the closed elevator door and pounds on it. It comes back, the door opens, and he gets in. The door closes. The near elevator comes up and discharges Hildy Johnson and Bruce Baldwin. Bruce carries an umbrella and wears a raincoat.



MED. CLOSE SHOT TABLE

office boy looking over his puzzle as
Hildy and Bruce come into the scene.

HILDY

(with a smile)

Hello, Skinny. Remember me?

OFFICE BOY

(looks up; then a
glowing smile)

Hildy Johnson!

CLOSE SHOT SWITCHBOARD

Hildy approaches the switchboard.

HILDY

(to operator)

Hello, Maisie.

The first operator looks up.

MAISIE

Hello -- Hildy! You coming back?

HILDY

No, just visiting.

Tell me, is the lord
of the universe in today?



MAISIE

He is -- and in a very bad humor. I think somebody stole one of his crown jewels. Shall I announce you?

HILDY

No, never mind -- I'll blow my own trumpet.

THREE SHOT BRUCE, HILDY AND OPERATOR

Hildy turns to Bruce.

HILDY

I won't be more than ten minutes, I promise you.

BRUCE

Even ten minutes is a long time to be away from you.



Think you've got a screenplay in you? Conjure up your own tale, use an event from your life or the life of someone you know, or even borrow a section from your favorite book. Once you have an idea for a story, you can write your very own screenplay! Make sure to include these elements: character names, dialogue, setting description, actor instructions, and camera operating instructions.

A large rectangular area with a dotted teal border, containing 15 horizontal dotted lines for writing a screenplay.



You now have a screenplay on your hands that you want to turn into a movie. But where to start? Run a search online or at a library to see how screenwriters go about getting their words made into a movie. Write about the next steps you'd need to take on the back of this sheet.

Writing Dialogue in *The Secret Garden*

Punctuation counts when you're writing dialogue. It helps you understand who is speaking and what they are saying. In *The Secret Garden*, by Frances Hodgson Burnett, the author uses dialogue to show how the characters relate to each other. Try your hand at adding quotation marks to the conversations below. In the first passage, Mary, an orphan, and Martha, a young servant girl, are just getting to know each other. In the second, Mary and her cousin Colin meet for the first time.

Passage 1

I don't want it, she said.

You don't want your porridge! Martha exclaimed incredulously.

No.

You don't know how good it is. Put a bit of treacle on it or a bit of sugar.

I don't want it, repeated Mary.

Eh! said Martha. I can't abide to see good food go to waste. If our children were at this table they'd clean it bare in five minutes.

Why? said Mary coldly.

Why! echoed Martha. Because they've hardly ever had their stomachs full in their lives. They're as hungry as young hawks and foxes.

I don't know what it is to be hungry, said Mary with the indifference of ignorance.

Martha looked indignant.

Well it would do you good to try it. I can see that plain enough, she said outspokenly.

Passage 2

How old are you? he asked.

I am ten, answered Mary, forgetting herself for the moment, and so are you.

How do you know that? he demanded in a surprised voice.

Because when you were born the garden door was locked and the key was buried. And it has been locked for ten years.

**Some language has been changed from the original text for clarity.*

ORDER

OF

(parentheses)

OPERATIONS

Determine what is needed to make the equations true.

Some of the equations need parentheses, while others do not.

Write in parentheses where needed or circle the equations that do not need them.

Ex. 1. $(9 + 7) \times 4 - 12 = 52$

$16 \times 4 - 12 = 52$

$64 - 12 = 52$

3. $7 - 1 + 55 \div 5 = 17$

2. $5 + 8 \times 2 - 4 = 22$

4. $5 \times 4 + 9 - 2 = 27$

5. $15 + 8 - 4 \div 2 = 21$

6. $11 + 10 - 4 \times 9 = 65$

7. $7 + 13 + 6 \times 9 = 74$

8. $36 \div 6 \times 2 + 9 = 21$

9. $9 \times 21 \div 3 + 10 = 73$

10. $13 - 4 \times 18 - 22 = 140$

11. $16 + 21 - 3 \times 6 = 19$

12. $43 - 4 \times 4 + 8 = 35$

Day 4

Reading

Practice your reading comprehension with the Making Inferences in a Fictional Text worksheet. You will make inferences with a fictional text.

Writing

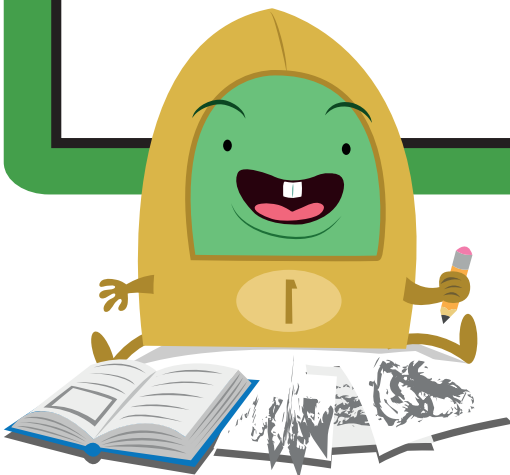
Vary your sentences as you write a story on this Mix it Up! Making Varied Sentences worksheet.

Grammar Practice

Show you understand the difference between complete sentences and fragments in the worksheet Recognize a Fragment When You See One!

Math

Use the visual of a measuring cup in the Measuring Cup Musings worksheet to help you convert liquids using ounces and cups.



Making Inferences in a Fictional Text

An **inference** is a conclusion you come to based on reasoning and evidence within a text. Making an inference requires using both information from the text and your background knowledge. Read the passage below and answer the inference questions that follow.

clues in text

+

what you know

=

inference

The Hazelnut Child



Once upon a time, before the continent of Europe was given that name, there lived a couple who had no children. They wished every day for a child, even if he were no bigger than a hazelnut. At last, their wish was granted, and they had a child who was the size of a hazelnut, just as they had said. They loved the child very much and they took excellent care of him. When the hazelnut child turned fifteen, his parents asked what he would become, now that he was of an age to work. "I would like to be a messenger," said the child. His mother laughed and asked, "How can you possibly be a messenger? Your tiny feet would take an hour to carry

you the distance anyone else could cover in a minute." "Give me a message to carry," said the boy, "and see how quickly I return." So his mother told him to go the house of his aunt in the neighboring village and bring back a comb. "I'll be back before you know," said the boy. His mother held the front door open for her son, and off he went on his journey. He found a man on horseback who was headed for the next town. The boy **crept** up the horse's leg, crawled under the saddle, and began to pinch the horse's back. Rearing up, the horse took off at breakneck speed and wouldn't slow down, no matter how hard the rider pulled at its reins. When they reached the neighboring village, the hazelnut child quit pinching the horse, and it slowed enough that the boy was able to climb back down its leg. His aunt was delighted to see him and gave him the comb he asked for. The hazelnut child returned home on the back of another horse and presented his mother with the comb. "But how did you get home so quickly?" she asked. He did not answer her question, but only said, "You see, I told you messenger was the **profession** for me." Using his newfound skill, the hazelnut child hitched a ride on a stork that was heading south for the winter and landed in a faraway country. There, he met the king, who was **astonished** by this tiny creature who rode storks as if they were horses. The king was so taken with the hazelnut child that he gave the boy a diamond bigger than himself. The boy hitched the diamond to his stork and flew home, and he and his parents lived in peace and **prosperity** for the rest of their lives.

Name: _____

Date: _____

Making Inferences in a Fictional Text

Defining Key Vocabulary

Directions: Use context clues to match each vocabulary word to its definition.

- | | |
|-------------------|---|
| crept | a paid occupation or job |
| profession | wealth or good fortune |
| astonished | moved slowly and quietly to avoid being noticed |
| prosperity | greatly surprised or impressed |

Making Inferences

Directions: Complete the chart by writing a quote from the text (on the left) or an inference you can make (on the right).

	The text states...	This most likely means...
1	"They wished every day for a child, even if he were no bigger than a hazelnut."	What can you infer about the couple who later became the hazelnut child's parents? _____ _____ _____
2	Write a quote from the story that supports this inference. _____ _____ _____	The hazelnut child was determined to prove that he could accomplish his goals, despite his small size.
3	"The king was so taken with the hazelnut child that he gave the boy a diamond bigger than himself."	What can you infer about the king? _____ _____ _____

Name: _____

Date: _____

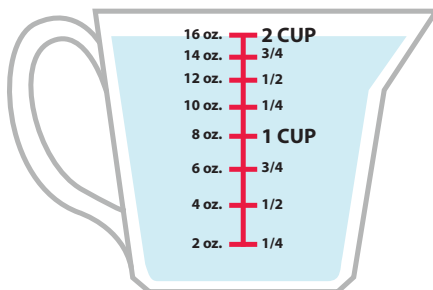
Recognize a Fragment When You See One!

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:	

Measuring Cup Musings

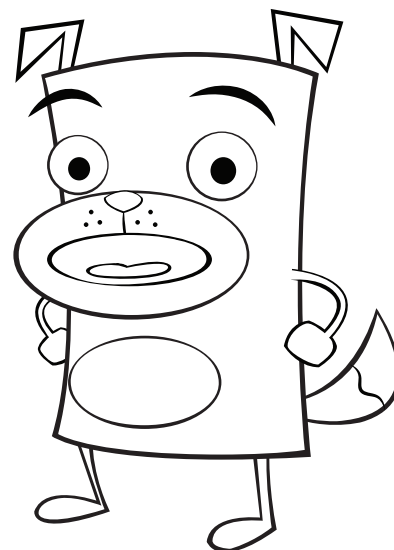
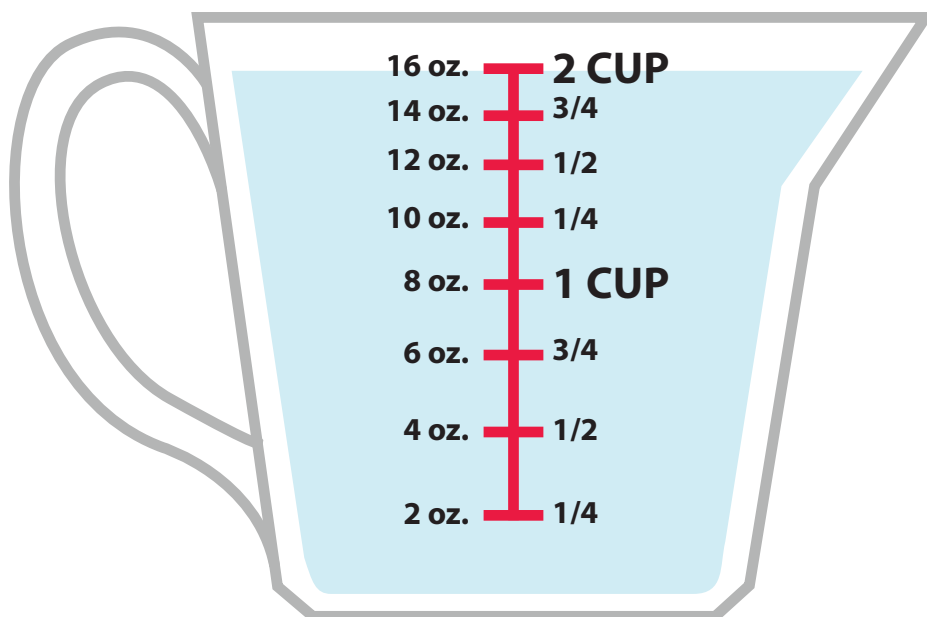
Liquid Volume is the quantity of three-dimensional space liquid occupies at rest.



This measuring cup has 2 cups of water in it.

What is the smallest amount it can measure in ounces (oz.)?

Answer: **2 oz.**



Directions: Use the measuring cup to help you answer the following questions.

- How much water will the measuring cup have if you poured $\frac{1}{2}$ of it out?
- How many ounces of water is equal to $1\frac{1}{4}$ cup of water?
- Thirty-two ounces of water is equivalent to how many cups of water?
- Two-fourths cup of water is how much in ounces?
- How many cups are in 64 ounces?
- How many ounces of water are equal to $\frac{6}{8}$ cups of water?

Day 5

Reading

Discover the parts of the brain and their purpose in the Why Do Zombies Love Brains? worksheet.

Use the worksheet Your Body: The Brain to read more about the brain and color code the brain based on the information you read.

Writing

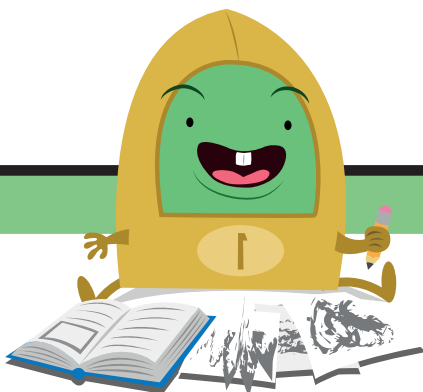
Compare the two reading articles about the brain on the Venn Diagram worksheet. Then write a paragraph about the brain using information you learned from the two texts.

Grammar Practice

Pick a word that describes a part of the brain and complete this Frayer Model about that word.

Math

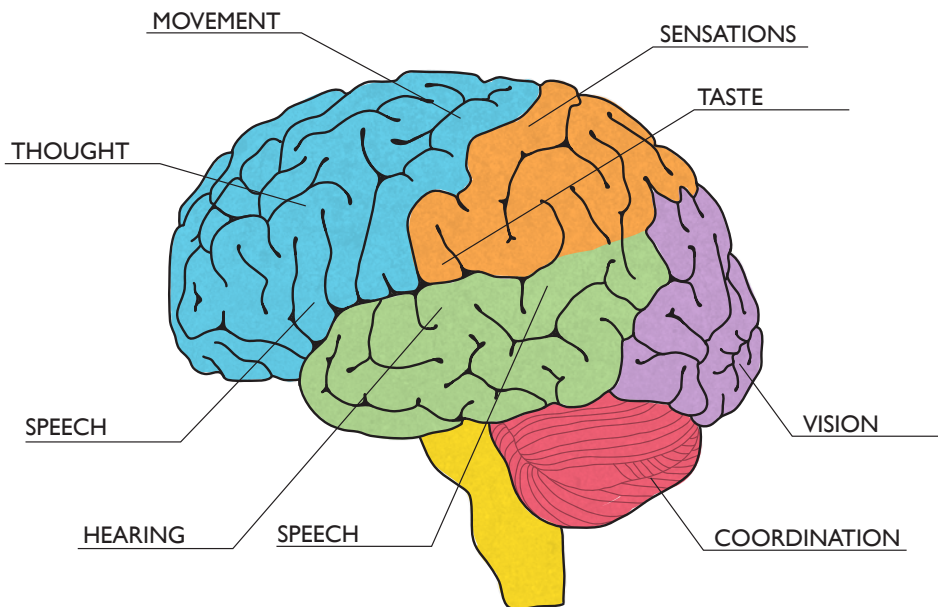
Follow the clues in the Place Value Puzzle worksheet to find the correct number to the hundred thousands place. You will have to remember decimals to the hundredths place as well.



WHY DO ZOMBIES LOVE BRAINS?

What do you think makes brains so appealing to zombies? Perhaps it's because the brain is where our entire body is coordinated, where our memories are stored, and where our senses are interpreted. Learn about your amazing brain on this page!

ANATOMY OF YOUR BRAIN



BLUE: FRONTAL LOBE

(reward, attention, motivation, planning, short-term memory, intelligence, personality, emotions, logic)

ORANGE: PARIETAL LOBE

(spatial sense, touch, language, navigation, recognition)

GREEN: TEMPORAL LOBE

(visual memories, new memories, sensory input, understanding language, hearing, long-term memory)

PURPLE: OCCIPITAL LOBE

(perception of motion, space, and color, visual input)

PINK: CEREBELLUM

(fine motor control, fear, pleasure, timing)

YELLOW: BRAIN STEM

(sleeping, alertness, breathing, eating, heart rate, consciousness, sending signals to and from brain)

Interesting Brain Facts:

- The average adult brain weighs three pounds, contains around 100 billion neurons, 1 trillion other cells to support the neurons, 100 thousand miles of blood vessels, and generates enough electricity to power a low-wattage light bulb!
- The brain is more powerful and complex than even the most advanced supercomputer.
- Sensory neurons send signals that about 150 miles per hour, and motor neurons can transmit at about 200 miles per hour!
- There are no pain receptors in your brain, so it doesn't feel any pain.
- A bigger brain doesn't mean a smarter person. Albert Einstein's brain was slightly smaller than average.
- Surgeons say that a living brain feels a lot like soft tofu. YUM!
- It's also a myth that we use only 10% of our brains. Even though there are still many things we don't know about it, we do know that each part of the brain has a purpose.
- Your brain only makes up about 2% of your body weight, but uses about 20% of your energy and oxygen.
- The bursts of light a person sees after hitting their head ("seeing stars") are the result of the brain hitting the back of the skull. The back of your brain is where vision is processed.
- It isn't true that your brain stops making connections once you become an adult. The ability to make new neural connections has been seen in adults who have had brain injuries, who form connections around the injured area.

YOUR BODY: THE BRAIN

While scientists, surgeons and doctors have mapped and studied every part of the body, there is still not much we know about the **human brain**. Your brain is a powerful, complex, clever organ that deals with hundreds of messages around you. The brain receives messages from many, many **nerve cells** all through your body. These messages are sparked when you see, hear, smell, touch, taste and move in your world. **Nerve fibers** across your body are like computer wires, where information can travel all the way from your little toe to the nerve cells in your brain.

The brain is split into **two hemispheres**, and each hemisphere controls a side of your body. Interestingly, the left side of your brain controls the right side of

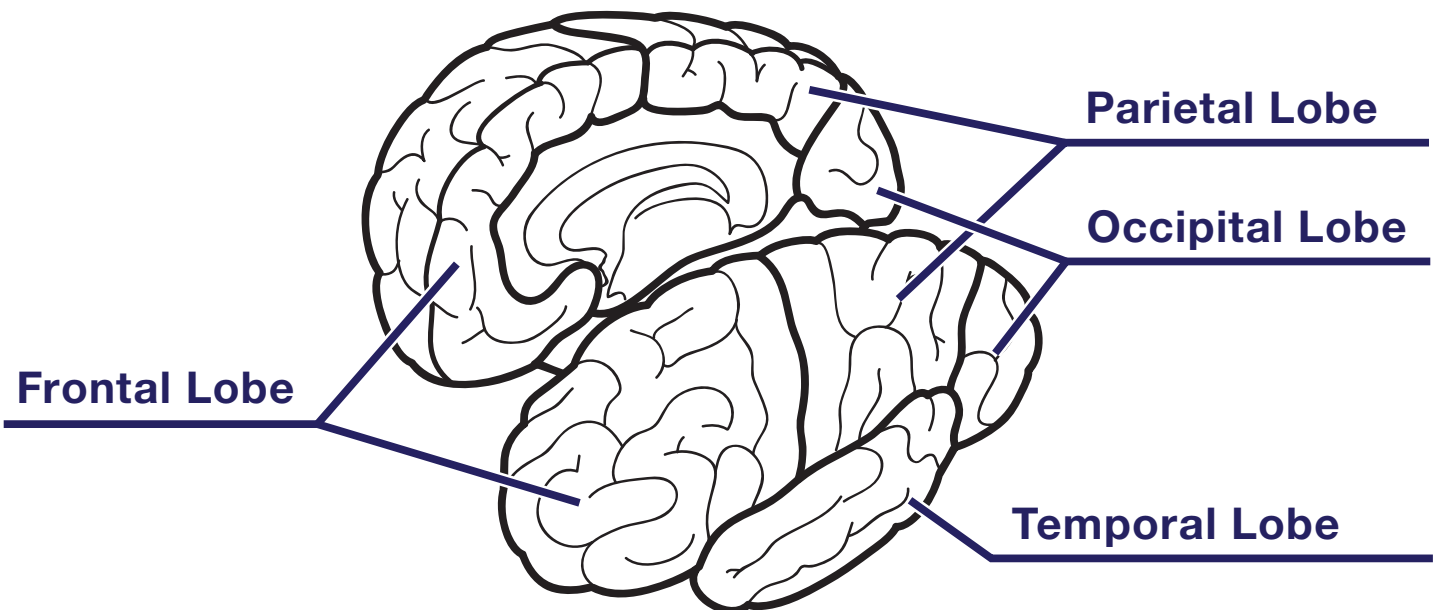
your body, while the right hemisphere controls the left side of your body.

Scientists have sectioned the brain into different lobes, based on how they interact with the information around you. The **frontal lobe** helps you talk, plan ahead, smell, and even solve problems. You can recognize faces and what people are saying because of the **temporal lobe**. The **parietal lobe** assists with your sense of taste and how you move, while the **occipital lobe** allows you to see.

Your brain is an important organ that helps you live, so be sure to protect it with the right safety gear when you bike or play sports! **Brain safety is smart safety.**

You will need crayons, markers, or colored pencils for the following activity.

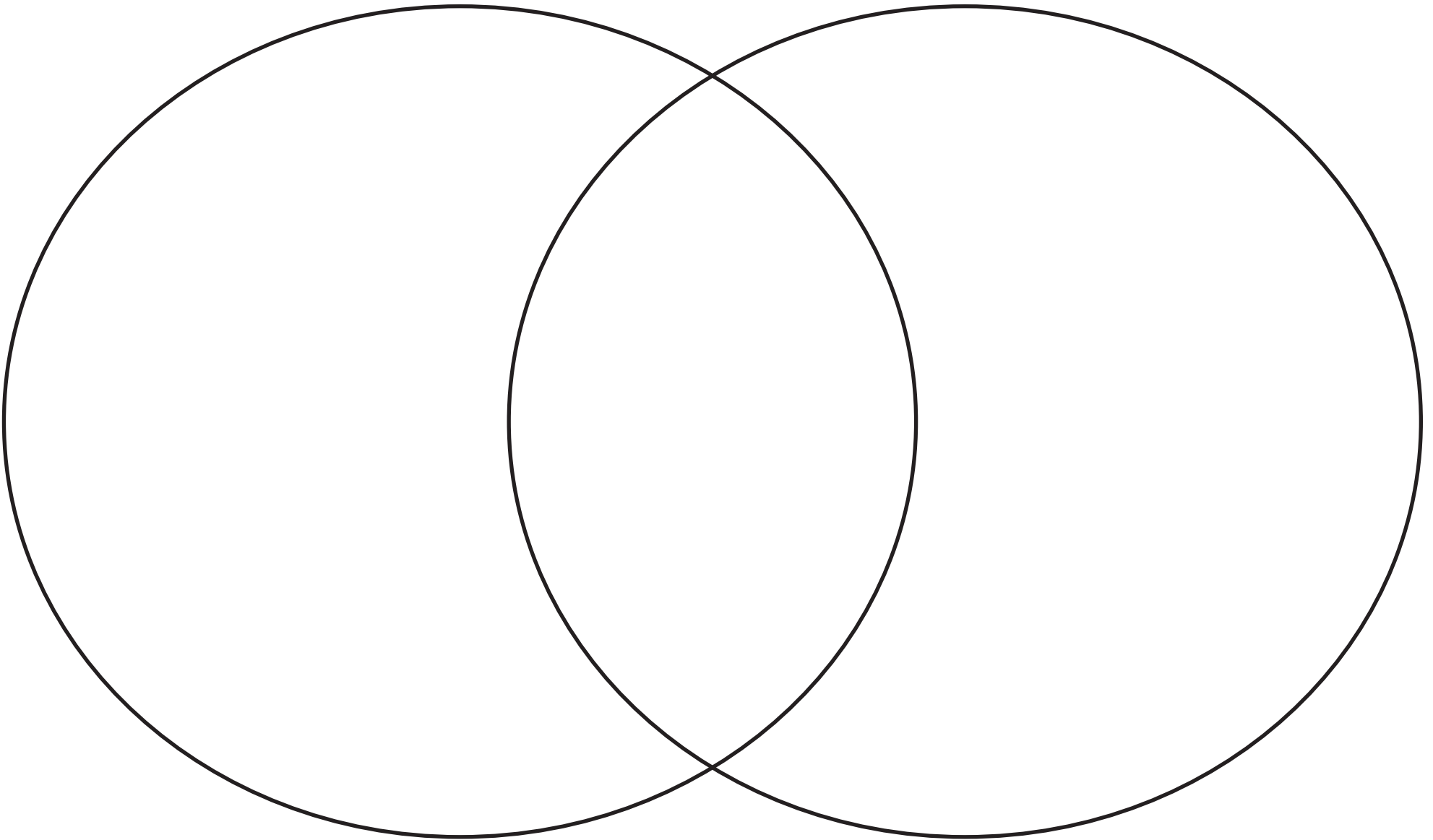
1. You use this part of the brain to talk, smell, plan and solve problems. Color this brain lobe **green**.
2. Color the brain lobe that controls your vision **red**.
3. This part of the brain controls your hearing. Color the brain lobe **yellow**.
4. Color the brain lobe that helps you move and taste food **blue**.



Name: _____

Date: _____

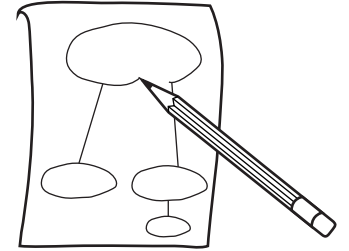
Venn Diagram



Name: _____

Date: _____

Frayer Model

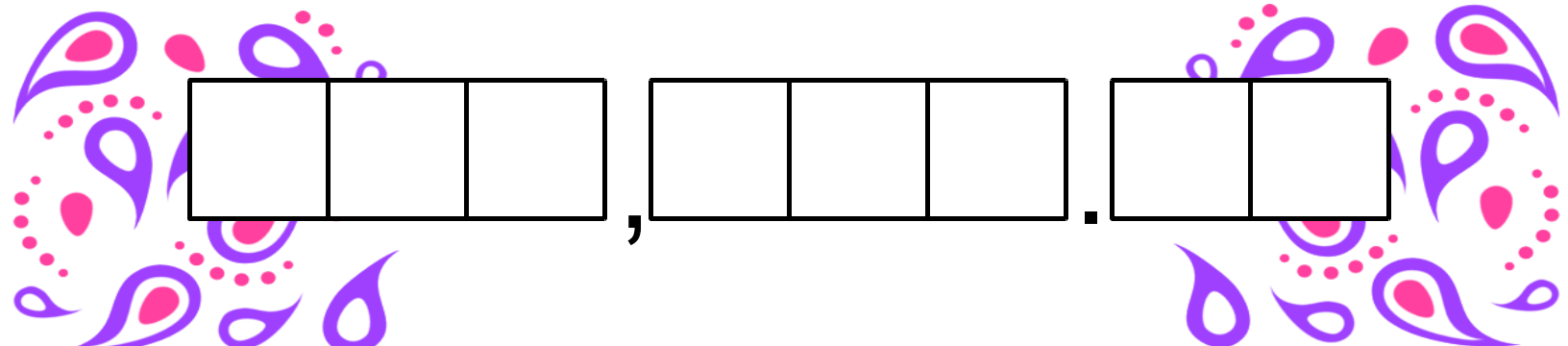


Directions: Write your vocabulary word in the “Vocabulary Term” oval. Complete the rest of the sections for the vocabulary term in your own words.

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

Place Value Puzzle

Read each clue to help you figure out the eight-digit number.



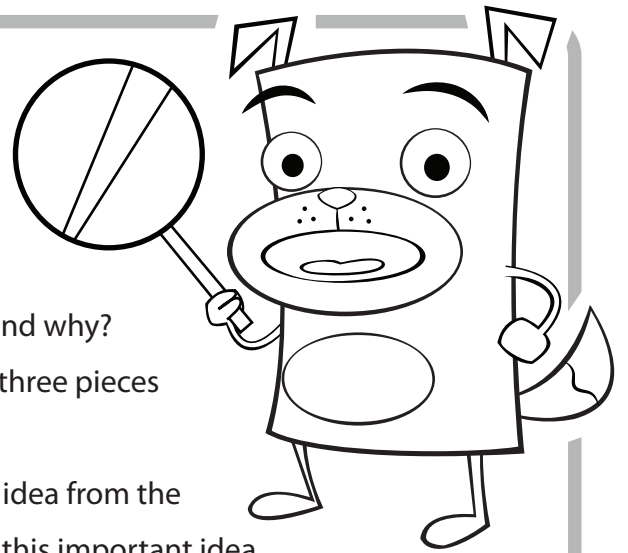
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1. Multiply 3 by the number of days in a week. Subtract 12 and write your answer in the thousands place.
2. Add 3 to the difference between 5 and 2. Write your answer in the ones place.
3. Divide the number in the thousands place by itself and then multiply the answer by 0. Write your answer in the tenths place.
4. Subtract the number of days in a weekend from the number of days in February (non-leap year). Divide your answer by 2. Subtract the number in the thousands place from that answer. Write your new answer in the hundredths place.
5. Add the numbers from the tenths, hundredths and ones place, and then divide by 2. Write your answer in the tens place.
6. Divide the number of hours in two days by 16 and write your answer in the hundred thousands place.
7. Multiply the number in the hundred thousands place by the number in the thousands place. Subtract 20 from that answer. Write your new answer in the ten thousands place.
8. Subtract the number in the tens place from the number in the ones place. Write your answer in the hundreds place.

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. Find 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?

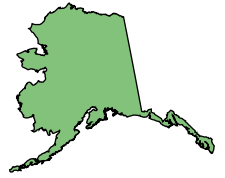
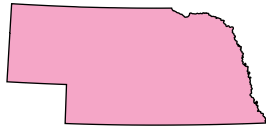


Nonfiction Texts

- 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?

Guess the Capital SCRAMBLE!

Get started by unscrambling the name of each state capital, then see if you can match it to its home state!



NHEELA _____

JEUUNA _____

NNCLOLI _____

MNIROTPEEL _____

ORDNCCO _____

VDOER _____

UANSTI _____

XNHOEPI _____

ATSNA EF _____

BEIOS _____

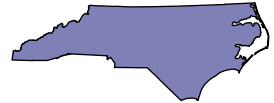
ARHILEG _____

HCARNSTLEO _____

NEDSPRFILIG _____

ILLINOIS

ARIZONA



TEXAS

IDAHO

NEW MEXICO



NORTH CAROLINA

NEW HAMPSHIRE

NEBRASKA



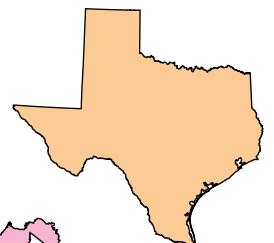
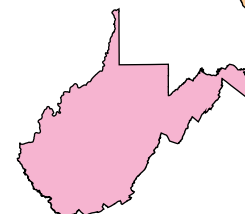
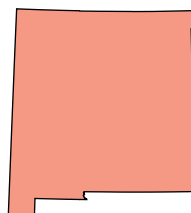
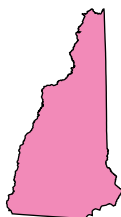
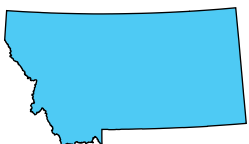
MONTANA

ALASKA

DELAWARE

WEST VIRGINIA

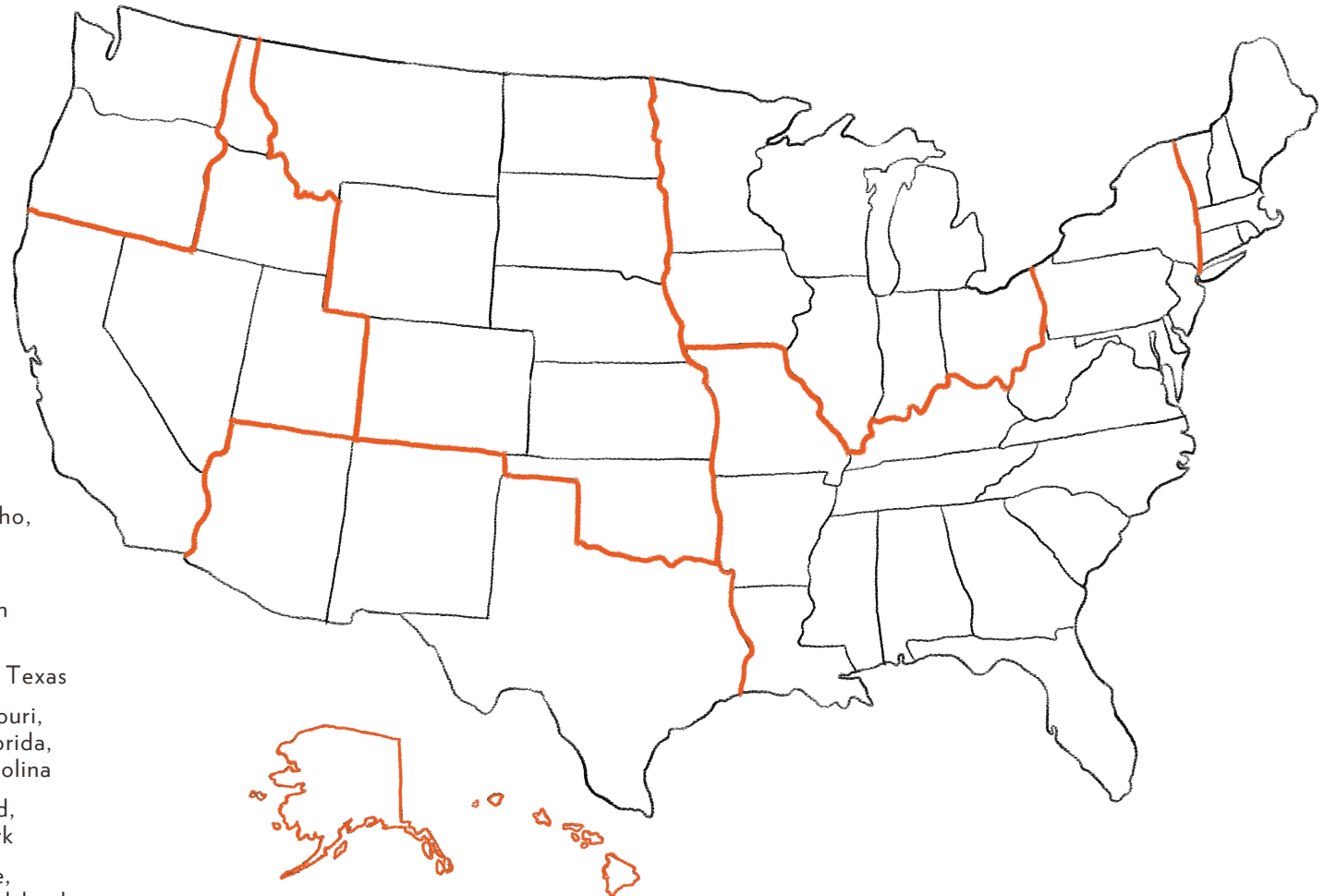
VERMONT





Regions of the United States

The United States is divided into several different regions based on geography, culture, climate, history, and many other factors. The map below shows where each region of the United States is approximately located. In the list on the left, each region is named along with the states it covers. Find each region on the map, color it in, and label the states.



U.S. Regions

Northwest (Blue): Washington, Oregon

West (Yellow): California, Nevada, Utah, Idaho, Hawaii, Alaska

Great Plains (Green): Montana, Wyoming, Colorado, Oklahoma, Kansas, Nebraska, South Dakota, North Dakota

Southwest (Orange): Arizona, New Mexico, Texas

Southeast (Pink): Louisiana, Arkansas, Missouri, Mississippi, Alabama, Georgia, Tennessee, Florida, Kentucky, Virginia, North Carolina, South Carolina

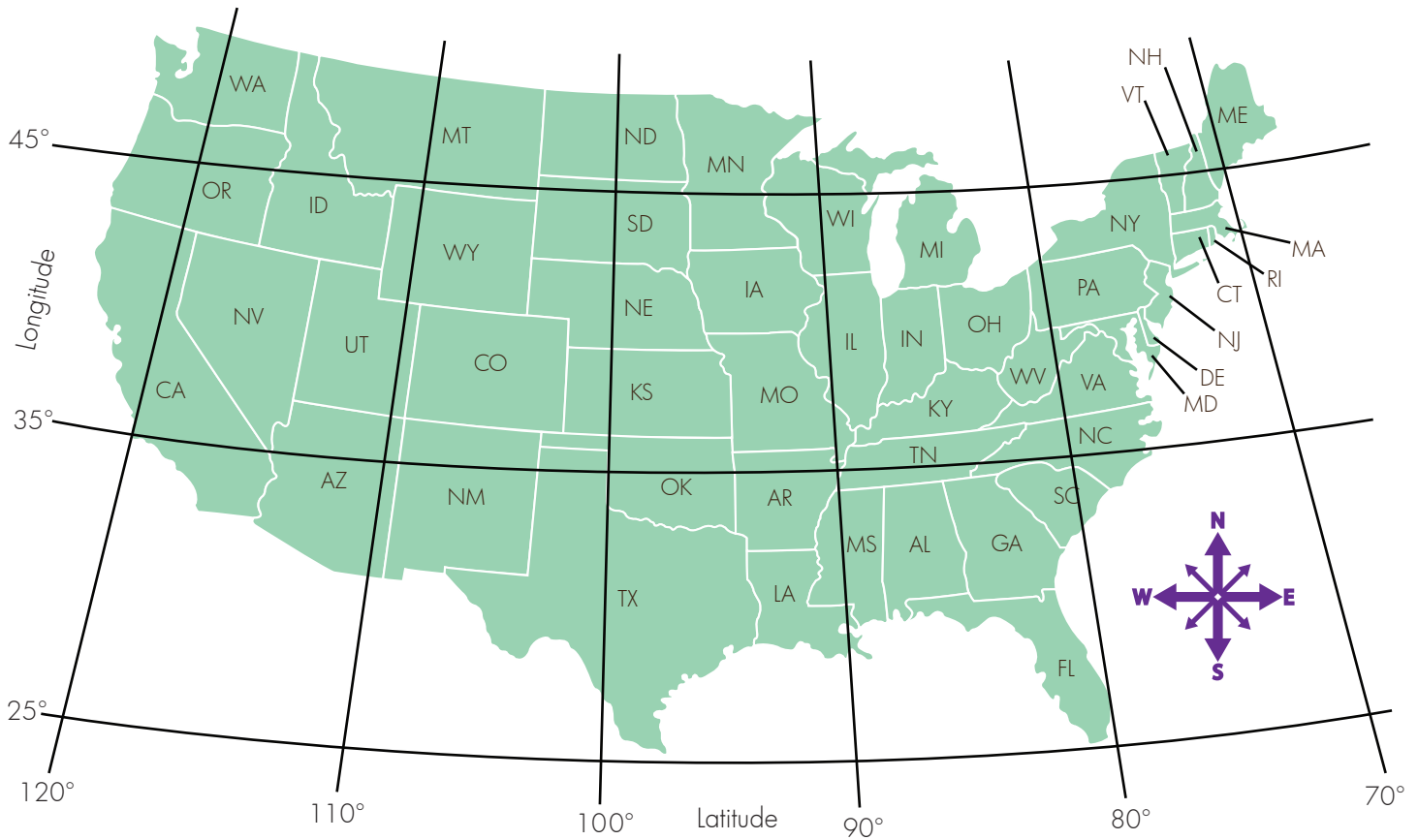
Northeast (Violet): West Virginia, Maryland, Delaware, Pennsylvania, New Jersey, New York

New England (Grey): Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island

Midwest (Brown): Illinois, Wisconsin, Michigan, Minnesota, Iowa, Indiana, Ohio

State Scavenger Hunt

Zach and Ronnie are on a state scavenger hunt.
Use the clues below to help them find the states they're looking for!



1. Start in Wyoming. Move one state north and then 3 states to the east. What state are you in?
2. Start in Alabama. Move one state north. Follow the 35° latitude line west 4 states. What state are you in?
3. Start in east Michigan. Move to the state that is south and east. Move one state northeast. Then go one more state north. What state are you in?
4. Start in South Dakota. Follow the 100° longitude line 2 states south. Go 2 states west. Then go to the bordering northwest state. What state are you in?

The Sun: A Diagram

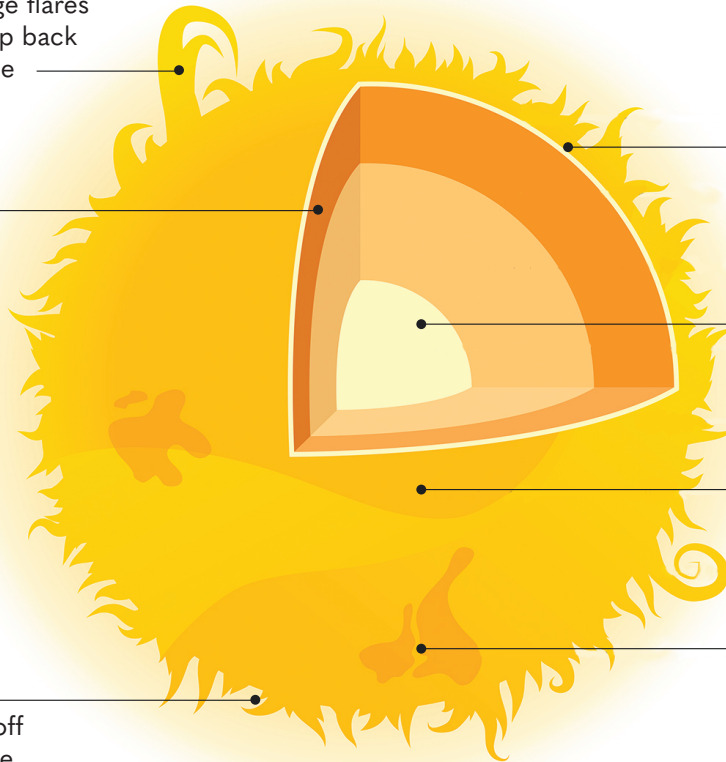
The sun is our star. All of the planets in our solar system orbit around it. It is made of very hot gases, mostly hydrogen and helium, that provide the light and heat for our solar system.

Answer the questions at the bottom of the page using what you have learned.

prominences: large flares of energy that loop back to the sun's surface

photosphere: the visible layer of the sun, but it is cooler than the outer two layers

flares: bursts of energy that flash off of the sun's surface



corona: the outermost surface of the sun. It is only visible during a solar eclipse, and is much hotter than the visible surface of the sun.

core: the hottest part of the solar system. Almost all of the sun's energy is produced here by fusion, and moves outwards.

chromosphere: a reddish color, but it is not visible to the eye normally. We can only see it during a solar eclipse.

sunspots: areas on the sun's surface that appear darker because they are of a lower temperature than surrounding areas

Questions

1. What is the difference between a flare and a prominence?

2. What part of the sun produces the most amount of heat and light?

3. What two parts of the sun's outer layer are only visible from Earth during a solar eclipse?

4. Why are sunspots darker than surrounding areas?

5. What part of the sun do we see from Earth?

Magnet Myths

Magnets are objects that create an area of magnetic force called a magnetic field. These fields by themselves are invisible to the human eye. Magnets only attract certain types of metals, such as iron, cobalt, and nickel.

Attracted to:

Iron
Cobalt
Nickel

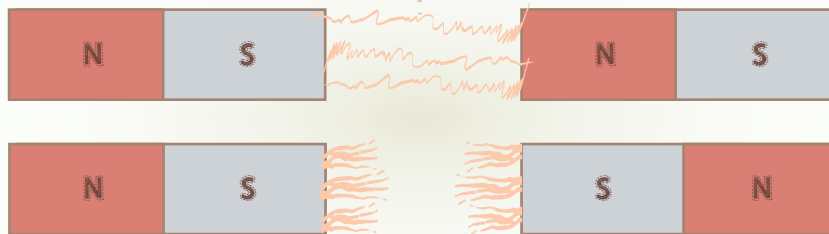
NOT attracted to:

Plastic Copper
Gold Silver
Aluminum Magnesium
Glass

Magnets have a north pole and a south pole. If the same pole of two magnets are put close each other they will repel or push away. If different poles are close to each other they will be attracted to each other and pull together.

Magnetic objects must be inside the magnetic field to respond, which is why you may have to move a magnet closer for it to have an effect.

Unlike poles
attract



Like poles
Repel

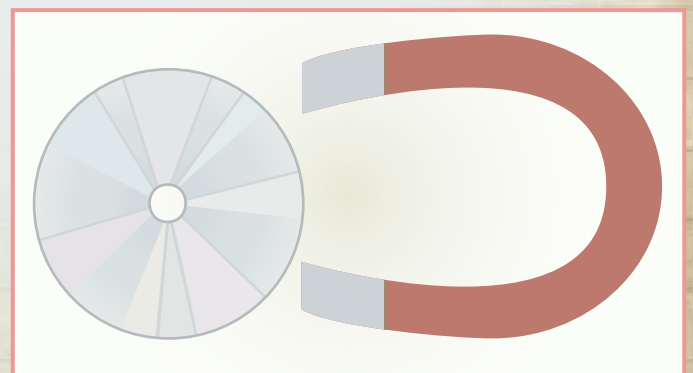
FREQUENT QUESTIONS

Can a magnet damage electronics?

Yes, powerful magnets are actually used to wipe information from computer hard drives. Most types of electronic equipment are made with tiny magnets, and those can be affected by another magnet close by. However, most household magnets, such as fridge magnets, are not strong enough to damage electronics.

Can a magnet wipe information from a CD?

No. The information on a CD is burned onto the CD with a laser. A magnet won't affect the information on a CD.



Magnet Myths (continued)

FREQUENT QUESTIONS...

Can you make a metal magnetic by rubbing a magnet on it?

To make a metal magnetic, you must do something to manipulate the magnetic domains of the metal so that they point in the same direction. This happens when you rub a pin on a magnet – the pin's magnetic domains will align because they've been exposed to the magnet's magnetic field. You can also do this by placing a piece of metal in a strong magnetic field in a north-south direction or passing an electrical current through it.

Do magnets have healing powers?

Doctors and scientists have been studying the healing effects of magnets for a long time. But we're still not quite sure of how powerful a magnet's healing capabilities are. There are many theories to explain why magnets MIGHT be good for your body. For example, some say that the iron found in hemoglobin in your blood can be affected by magnets. That is why many people wear magnetic bracelets or necklaces to help improve blood circulation. Some say that magnets can also change the structure of nearby cells. This could mean that magnets might be able to heal pain or illnesses.

Magnets are used as a part of many different medical devices. For example, an MRI (Magnetic Resonance Imaging) uses magnetic fields to see the organs in our bodies.

COMPREHENSION

1. If you can manipulate metal to be magnetic, do you think you can demagnetize something? How would this work?

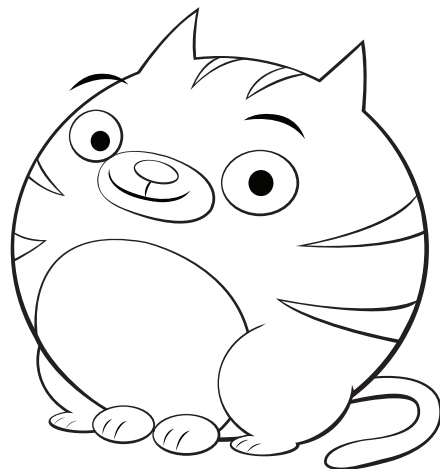
2. Magnets do one of two things, repel or attract. Why is this?

Week 1

Independent Study Packet

ANSWER KEYS

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



Name: _____

Date: _____

Answer Key Read & Compare Character Traits

Directions: Read about the two characters below. Highlight words and phrases that show their external and internal traits. Then, compare them using the double bubble chart on the next page.



Sasha is a 10-year-old girl. She is in fifth grade at Northgate Elementary School. Sasha has short, curly hair and brown eyes.

Sasha has lots of friends at school. She is always very talkative and sometimes it gets her in trouble in class. But she is a smart student and a kind classmate, so she is never in trouble for long. Her teacher understands that she is just being friendly.

Today in class, Sasha's teacher, Ms. Hammond gave a math test. Sasha felt confident that she did well on the test. Math is her favorite subject. She took the test quickly and then started talking to her friend, Gabby. "Shhh!" Ms. Hammond scolded.

After school, Sasha always goes to her parents' restaurant. She tries to be helpful since her parents are very busy. Usually she sweeps the floors and fills ketchup containers. Finally, when it's time for dinner, Sasha gets to pick something from the menu. Her favorite thing to eat at the restaurant is wat with injera, which is a type of stew served with bread.



Anil is a fifth grader at Northgate Elementary. He'll be turning 11 next month. Anil has curly, black hair and hazel eyes.

Anil is very quiet in class, but he enjoys talking with his best friend, Grant, during recess. Some people think that Anil is unfriendly, but Grant knows that he is just shy.

Today Anil took a math test in class. He felt very nervous. Even though he is a smart kid, he doesn't like math very much. He prefers to read and write. In fact, Anil hopes to be an author one day so he can write books of his own.

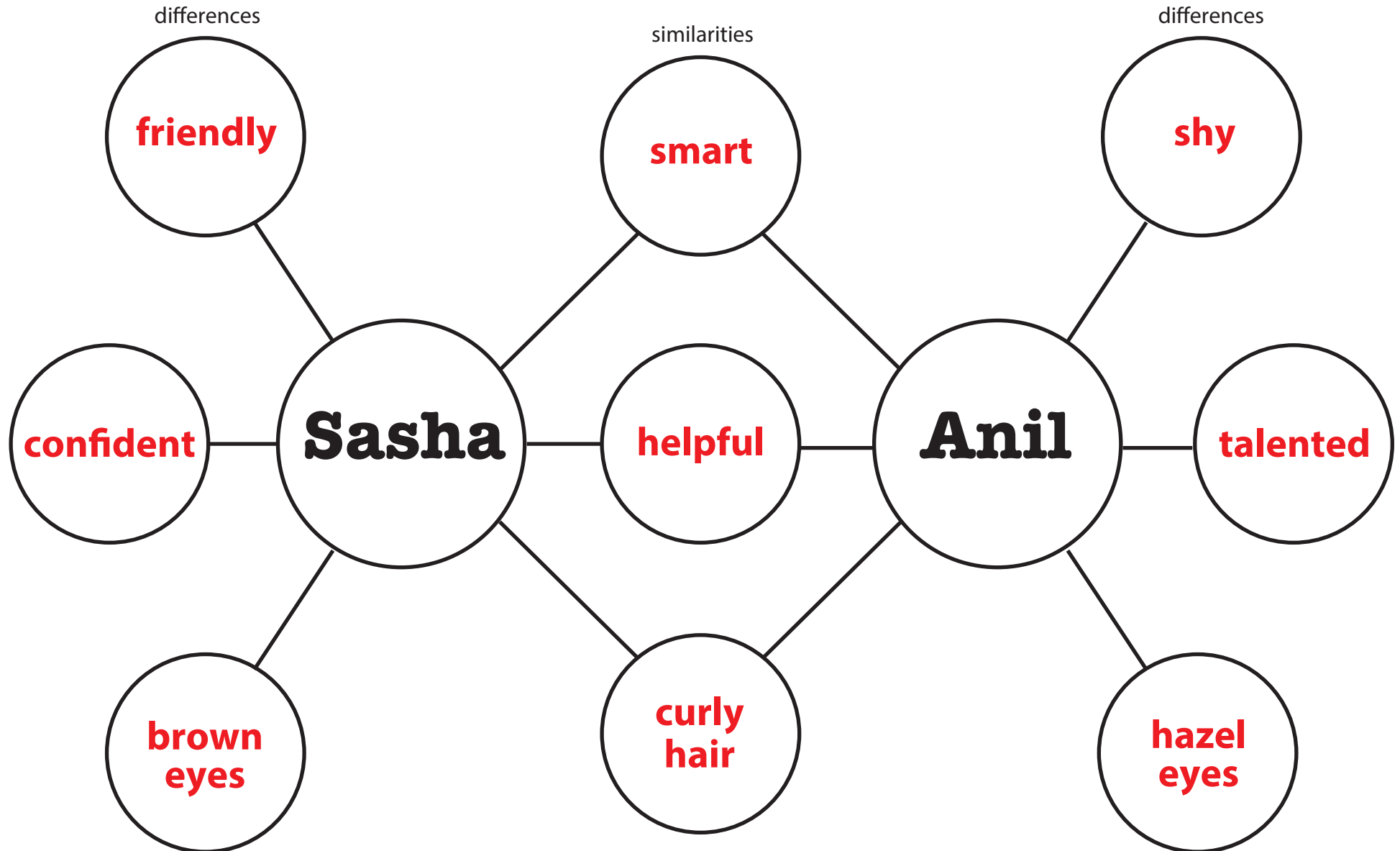
After school, Anil has piano lessons. He is a very talented musician. Then, he goes home to babysit his little brother and sister. His dad works at night, so Anil has to be helpful around the house. When his mom gets home, he helps make dinner. Tonight they are having kibbeh, which is made from meat, grains, and spices.

Name: _____

Date: _____

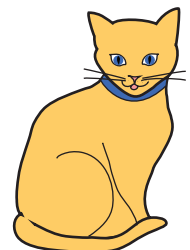
Answer Key **Read & Compare Character Traits**

Directions: List three traits Sasha and Anil have in common and three traits that are unique to each character.



Answer Key Using Context Clues

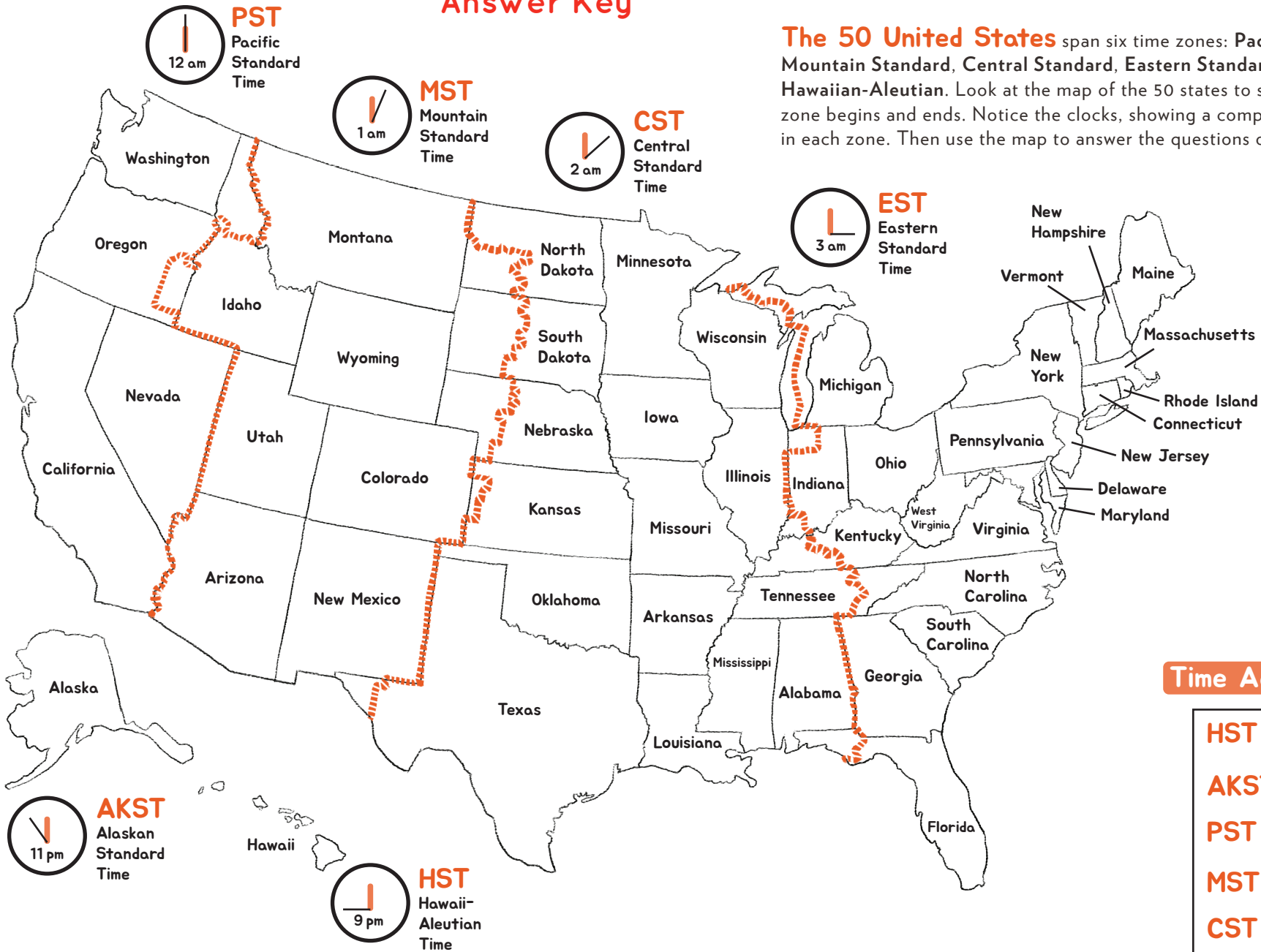
1. The coach **admonished** her for picking daisies when she should have been defending the goal.
a. Criticized b. Praised c. Listened
2. He tried to **perturb** his sister by putting his foot closer and closer to her side of the car.
a. Congratulate b. Irritate c. Question
3. She showed great **proWess** in the engineering competition and won first prize.
a. Anxiety b. Patience c. Skill
4. I don't wish to **impede** your progress, I was merely trying to make sure you understand the instructions.
a. Slow b. Improve c. Exaggerate
5. He just had to get back at the other player; he was quite **vindictive**.
a. Loving b. Thoughtful c. Resentful
6. The **onslaught** of dishes came right after the party of 18 left the restaurant.
a. Handful b. Invasion c. Trickling
7. The cat had some **trepidation** as it passed the dog's kennel.
a. Confidence b. Hunger c. Unease



50 States Time Zones

Answer Key

The 50 United States span six time zones: Pacific Standard, Mountain Standard, Central Standard, Eastern Standard, Alaskan, and Hawaiian-Aleutian. Look at the map of the 50 states to see where each time zone begins and ends. Notice the clocks, showing a comparison of the time in each zone. Then use the map to answer the questions on the next page!



Time Across Zones

HST	12 pm
AKST	2 pm
PST	3 pm
MST	4 pm
CST	5 pm
EST	6 pm

50 States Time Zones Answer Key

Use the time zone map on the previous page to answer the questions below.

1. Daniel and Jody are flying to Massachusetts for a wedding. If their plane leaves California at 7:00 a.m. PST and lands in Massachusetts at 3:30pm EST, what time will it be in California when they arrive?
12:30 pm PST
2. Carrie took a 24-hour train ride from Colorado to Illinois. If she arrived in Illinois at 2:45pm CST on Wednesday, when she did she leave Colorado?
1:45 pm MST on Tuesday
3. If a live New Year's Eve TV special begins broadcasting at 10:00 pm EST in New York, what time should viewers in Oregon tune in?
7:00 pm PST
4. Chance wants to wish his cousin a happy birthday at 9:00am CST. Chance lives in Texas and his cousin lives in Ohio. What time will it be at his cousin's house when Chance calls to say happy birthday?
10:00 am EST
5. What time is it in Nebraska when the sun goes down in New York at 5:20pm EST?
4:20 pm CST
6. Abel and his family are going on a road trip from Massachusetts to Alabama. The drive will take 18 hours. If they leave Massachusetts at 5:00am EST on Friday, what time will they get to Alabama?
10:00 pm CST on Friday





What is Drama? **Answer Key**

A **drama** is also known as a *play*. This type of text is different from prose and poetry.

Characteristics of Drama:

- Tells a story and is divided into parts called **scenes**
- Written so that it can be performed as a play
- Includes story elements of fiction – setting, characters, plot
- **Cast of characters** that tells who will be in the play
- **Description of the setting** and what the stage should look like
- **Stage directions** tell the actors what to do, how to speak, and where to be on the stage
- Characters' **dialogue** tells the actors what to say

A **playwright** is someone who writes a drama or play.

Directions: Read the excerpt below and answer the questions that follow.

What Was That?

Cast of Characters

TATIANA
ELIAS
MIKAEL
DYANA

Scene One

On a hot afternoon in July, the smoke from an explosion rises into the sky. The kids stand in the middle of their street, staring. The kids are dirty, wearing clothes with holes in them. They all have backpacks on.

ELIAS (*pointing to the sky*)

Guys, do you see that?

MIKAEL

Oh, I definitely see that. But can you smell it?

DYANA (*plugging her nose*)

Oh, I definitely smell that. That's the worst odor I've ever smelled!
What happened? Where is that coming from?

TATIANA

I don't know, but I think we had better get out of here. This doesn't seem like the best place for four kids to be hanging out.

The kids turn and start walking quickly down the street, periodically looking back at the smoke in the sky.

* * * * *

Student answers will vary, but may include:

1. How does a drama get its ideas across differently than prose, like a novel, or poetry?

A drama uses dialogue and actions to get ideas across.
Prose and poetry use a mix of dialogue and narration.

2. How is drama different from other types of literature?

Even though a drama tells a story like other forms of literature, drama is different because of its overall formatting. Also, a drama uses dialogue to tell the story without including the same type of narration that is found in other types of literature.

3. What do you notice about the formatting that makes a drama something that can be performed?

A drama can be performed because it is formatted like a play. It includes a list of the characters and describes what the setting, or the stage, should look like. It also includes stage directions to tell the characters how to act and express themselves while performing.

* * * * *

Challenge: On a separate sheet of paper, write your own play with:

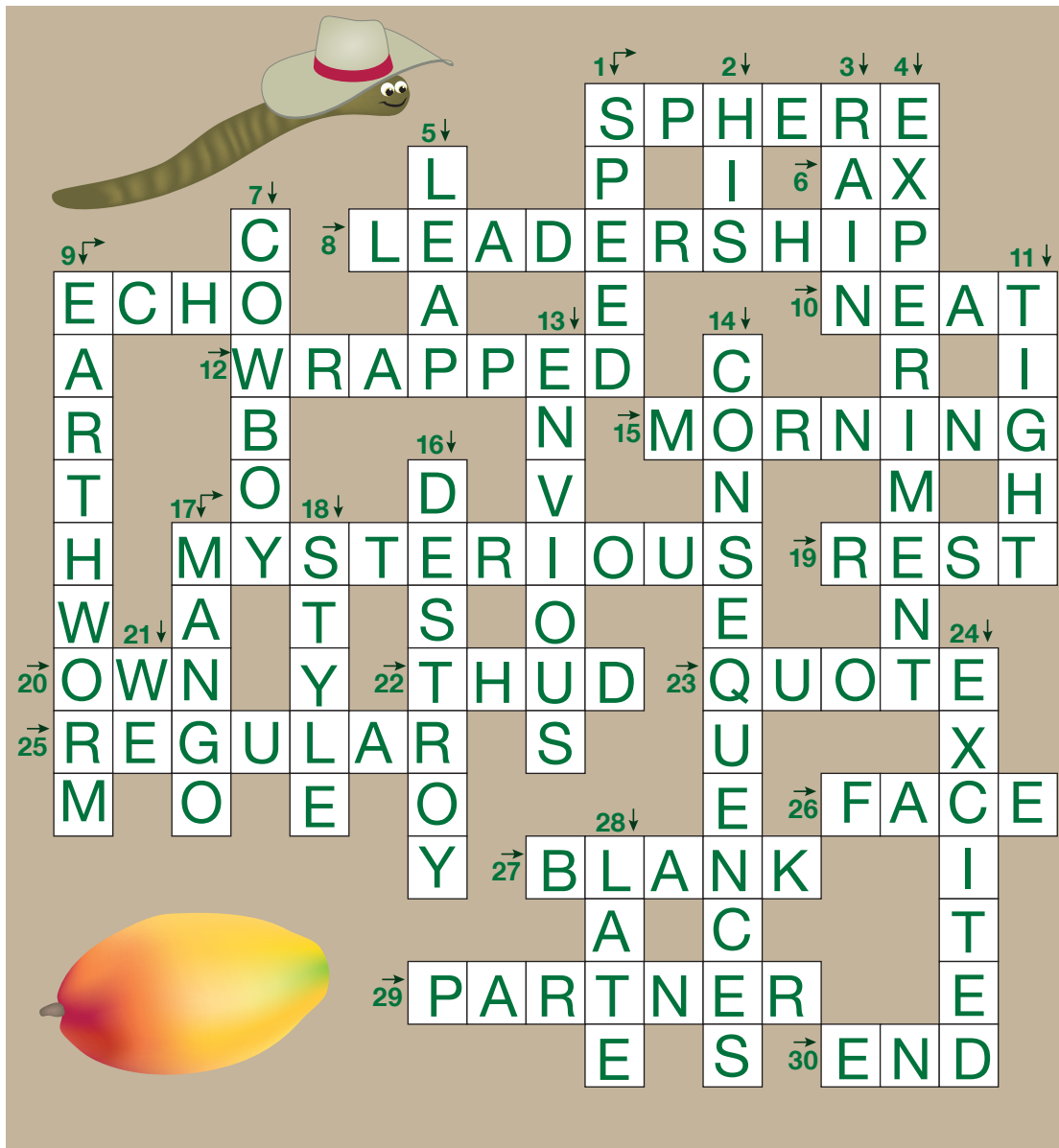
- A cast of characters
- One scene
- Description of the setting
- Dialogue
- Stage directions

* **Remember:** A drama has the same story elements as a story. Your play should have a setting, characters, and a plot with a problem and solution.

Fifth Grade Spelling Crossword Puzzle

(Very hard!)

Answer Key

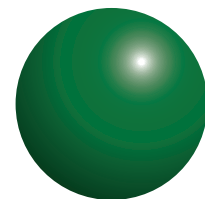


Down

- 1) quickness
- 2) belonging to him
- 3) water falling out of clouds
- 4) a test, such as in science
- 5) to jump
- 7) someone who tends to cows or horses
- 9) a long, slimy creature that lives in dirt and has no bones
- 11) not loose
- 13) jealous
- 14) the effect or result, usually negative, as in "You'll have to face the _____."
- 16) to ruin
- 17) a tart fruit that is red, orange, or yellow
- 18) fashion, or the way something is done
- 21) my friends and I
- 24) energized, stimulated, ready to go
- 28) the opposite of early

Across

- 1) a shape, like a ball
- 6) a tool used for chopping wood
- 8) guidance from the person in charge, a personal quality that a teacher should have
- 9) a repeated sound
- 10) orderly, clean, tidy
- 12) covered by something, such as a blanket or paper
- 15) the part of the day before noon
- 17) difficult to understand, scary, like a haunted house
- 19) to nap, to sleep, or a silent beat in music
- 20) to hold as property
- 22) a loud, dull sound, as in "That door sure makes a _____."
- 23) something someone said, exactly how she said it, as in a "famous _____."
- 25) normal
- 26) the front of something, such as a head
- 27) something empty, as in "Fill in the _____."
- 29) someone associated with another, such as in business or dancing
- 30) conclusion



Writing Dialogue in *The Secret Garden* **Answer Key**

Punctuation counts when you're writing dialogue. It helps you understand who is speaking and what they are saying. In *The Secret Garden*, by Frances Hodgson Burnett, the author uses dialogue to show how the characters relate to each other. Try your hand at adding quotation marks to the conversations below. In the first passage, Mary, an orphan, and Martha, a young servant girl, are just getting to know each other. In the second, Mary and her cousin Colin meet for the first time.

Passage 1

"I don't want it," she said.

"You don't want your porridge!" Martha exclaimed incredulously.

"No."

"You don't know how good it is. Put a bit of treacle on it or a bit of sugar."

"I don't want it," repeated Mary.

"Eh!" said Martha. "I can't abide to see good food go to waste. If our children were at this table they'd clean it bare in five minutes."

"Why?" said Mary coldly.

"Why!" echoed Martha. "Because they've hardly ever had their stomachs full in their lives. They're as hungry as young hawks and foxes."

"I don't know what it is to be hungry," said Mary with the indifference of ignorance. Martha looked indignant.

"Well it would do you good to try it. I can see that plain enough," she said outspokenly.

Passage 2

"How old are you?" he asked.

"I am ten," answered Mary, forgetting herself for the moment, "and so are you."

"How do you know that?" he demanded in a surprised voice.

"Because when you were born the garden door was locked and the key was buried. And it has been locked for ten years."

**Some language has been changed from the original text for clarity.*



ORDER

OF

(parentheses)

OPERATIONS

ANSWERS

Determine what is needed to make the equations true.

Some of the equations need parentheses, while others do not.

Write in parentheses where needed or circle the equations that do not need them.

Ex. 1. $(9 + 7) \times 4 - 12 = 52$

$$16 \times 4 - 12 = 52$$

$$64 - 12 = 52$$

3. $(7 - 1) + 55 \div 5 = 17$

$$6 + 55 \div 5 = 17$$

$$6 + 11 = 17$$

5. $(15 + 8) - 4 \div 2 = 21$

$$23 - 4 \div 2 = 21$$

$$23 - 2 = 21$$

7. $7 + 13 + 6 \times 9 = 74$

$$7 + 13 + 54 = 74$$

$$20 + 54 = 74$$

9. $9 \times (21 \div 3) + 10 = 73$

$$9 \times 7 + 10 = 73$$

$$63 + 10 = 73$$

11. $16 + 21 - 3 \times 6 = 19$

$$16 + 21 - 18 = 19$$

$$37 - 18 = 19$$

2. $(5 + 8) \times 2 - 4 = 22$

$$13 \times 2 - 4 = 22$$

$$26 - 4 = 22$$

4. $5 \times 4 + (9 - 2) = 27$

$$5 \times 4 + 7 = 27$$

$$20 + 7 = 27$$

6. $11 + (10 - 4) \times 9 = 65$

$$11 + 6 \times 9 = 65$$

$$11 + 54 = 65$$

8. $36 \div 6 \times 2 + 9 = 21$

$$6 \times 2 + 9 = 21$$

$$12 + 9 = 21$$

10. $(13 - 4) \times 18 - 22 = 140$

$$9 \times 18 - 22 = 140$$

$$162 - 22 = 140$$

12. $43 - 4 \times 4 + 8 = 35$

$$43 - 16 + 8 = 35$$

$$27 + 8 = 35$$

Answer Key

Making Inferences in a Fictional Text

Defining Key Vocabulary

Directions: Use context clues to match each vocabulary word to its definition.

- | | |
|--|--|
| <p>crept</p> <p>profession</p> <p>astonished</p> <p>prosperity</p> | <p>_____ a paid occupation or job</p> <p>_____ wealth or good fortune</p> <p>_____ moved slowly and quietly to avoid being noticed</p> <p>_____ greatly surprised or impressed</p> |
|--|--|

Making Inferences

Directions: Complete the chart by writing a quote from the text (on the left) or an inference you can make (on the right).

	The text states...	This most likely means...
1	<p>"They wished every day for a child, even if he were no bigger than a hazelnut."</p>	<p>What can you infer about the couple who later became the hazelnut child's parents?</p> <p><u>The couple wanted to be parents to a child so badly, and they didn't care if he was different from every other child.</u></p>
2	<p>Write a quote from the story that supports this inference.</p> <p><u>"You see, I told you messenger was the profession for me."</u></p>	<p>The hazelnut child was determined to prove that he could accomplish his goals, despite his small size.</p>
3	<p>"The king was so taken with the hazelnut child that he gave the boy a diamond bigger than himself."</p>	<p>What can you infer about the king?</p> <p><u>The king was wealthy and he had never seen anyone like the hazelnut boy; he was impressed by him.</u></p>

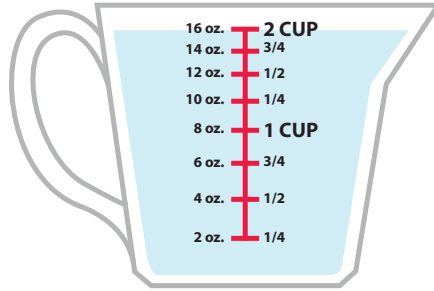
Answer Key Recognize a Fragment When You See One!

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 <u>Fragment</u>
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 <u>Fragment</u>
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.	<u>Sentence</u> Fragment
FIX: No fix necessary.	
His ex-girlfriend Samantha, the one he dated five years ago.	Sentence <u>Fragment</u>
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 <u>Fragment</u>
FIX: A meteor from a galaxy 67 light years away just landed in the Indian Ocean.	

Measuring Cup Musings Answer Key

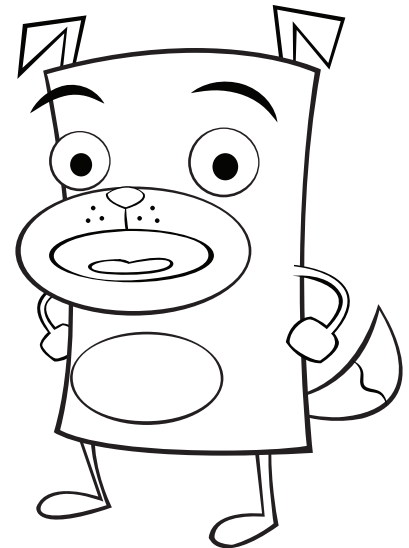
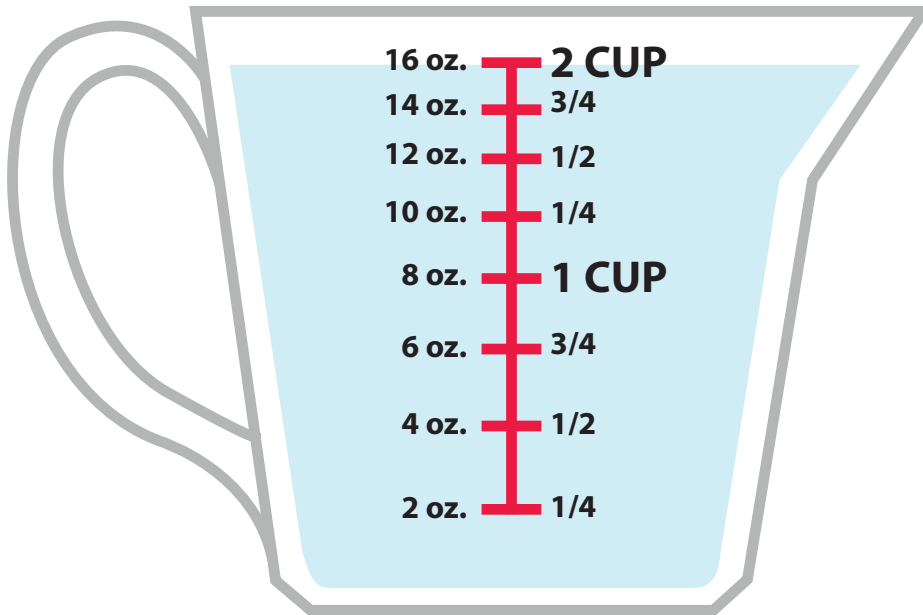
Liquid Volume is the quantity of three-dimensional space liquid occupies at rest.



This measuring cup has 2 cups of water in it.

What is the smallest amount it can measure in ounces (oz.)?

Answer: **2 oz.**

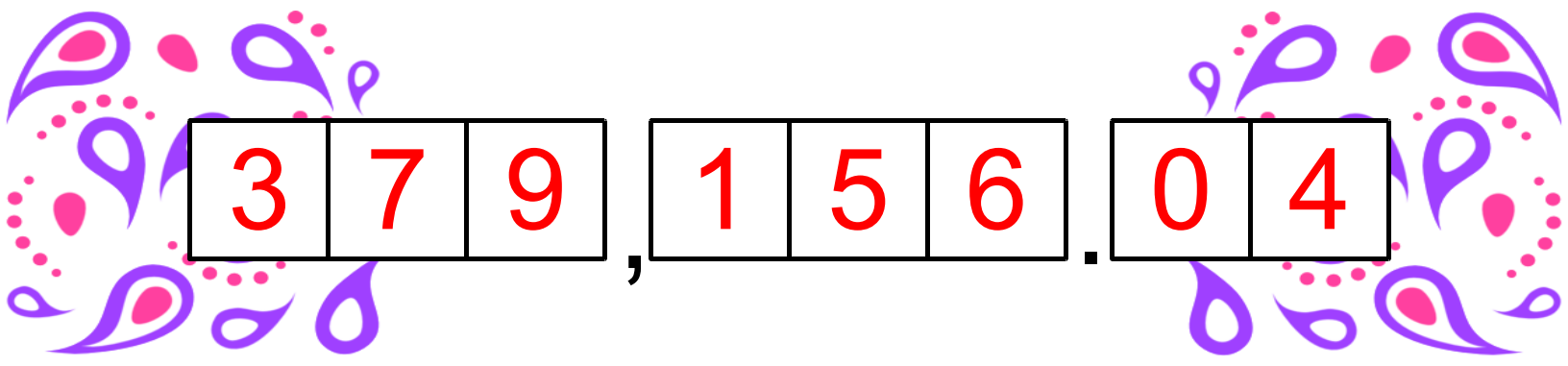


Directions: Use the measuring cup to help you answer the following questions.

- How much water will the measuring cup have if you poured $\frac{1}{2}$ of it out?
1 cup
- How many ounces of water is equal to $1 \frac{1}{4}$ cup of water?
10 oz.
- Thirty-two ounces of water is equivalent to how many cups of water?
4 cups
- Two-fourths cup of water is how much in ounces?
4 oz.
- How many cups are in 64 ounces?
8 cups
- How many ounces of water are equal to $\frac{6}{8}$ cups of water?
6 oz.

Answer Key Place Value Puzzle

Read each clue to help you figure out the eight-digit number.



3 7 9 , 1 5 6 . 0 4

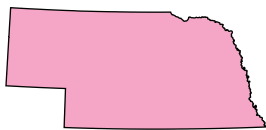
1. Multiply 3 by the number of days in a week. Subtract 12 and write your answer in the thousands place.
2. Add 3 to the difference between 5 and 2. Write your answer in the ones place.
3. Divide the number in the thousands place by itself and then multiply the answer by 0. Write your answer in the tenths place.
4. Subtract the number of days in a weekend from the number of days in February (non-leap year). Divide your answer by 2. Subtract the number in the thousands place from that answer. Write your new answer in the hundredths place.
5. Add the numbers from the tenths, hundredths and ones place, and then divide by 2. Write your answer in the tens place.
6. Divide the number of hours in two days by 16 and write your answer in the hundred thousands place.
7. Multiply the number in the hundred thousands place by the number in the thousands place. Subtract 20 from that answer. Write your new answer in the ten thousands place.
8. Subtract the number in the tens place from the number in the ones place. Write your answer in the hundreds place.

Guess the Capital SCRAMBLE!

Get started by unscrambling the name of each state capital, then see if you can match it to its home state!



Answer
Key



- NHEELA Helena
- JEUUNA Juneau
- NNCLOLI Lincoln
- MNIROTPEEL Montpelier
- ORDNCCO Concord
- VDOER Dover
- UANSTI Austin
- XNHOEPI Phoenix
- ATSNA EF Santa Fe
- BEIOS Boise
- ARHILEG Raleigh
- HCARNSTLEO Charleston
- NEDSPRFILIG Springfield

ILLINOIS

ARIZONA

TEXAS

IDAHO

NEW MEXICO

NORTH CAROLINA

NEW HAMPSHIRE

NEBRASKA

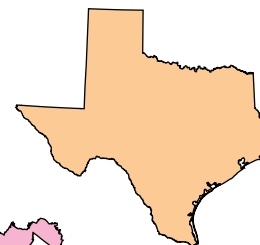
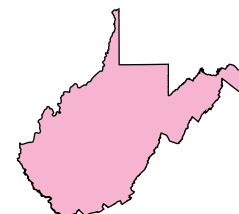
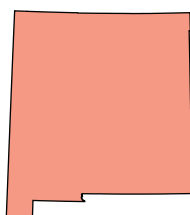
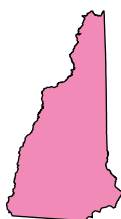
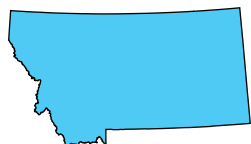
MONTANA

ALASKA

DELAWARE

WEST VIRGINIA

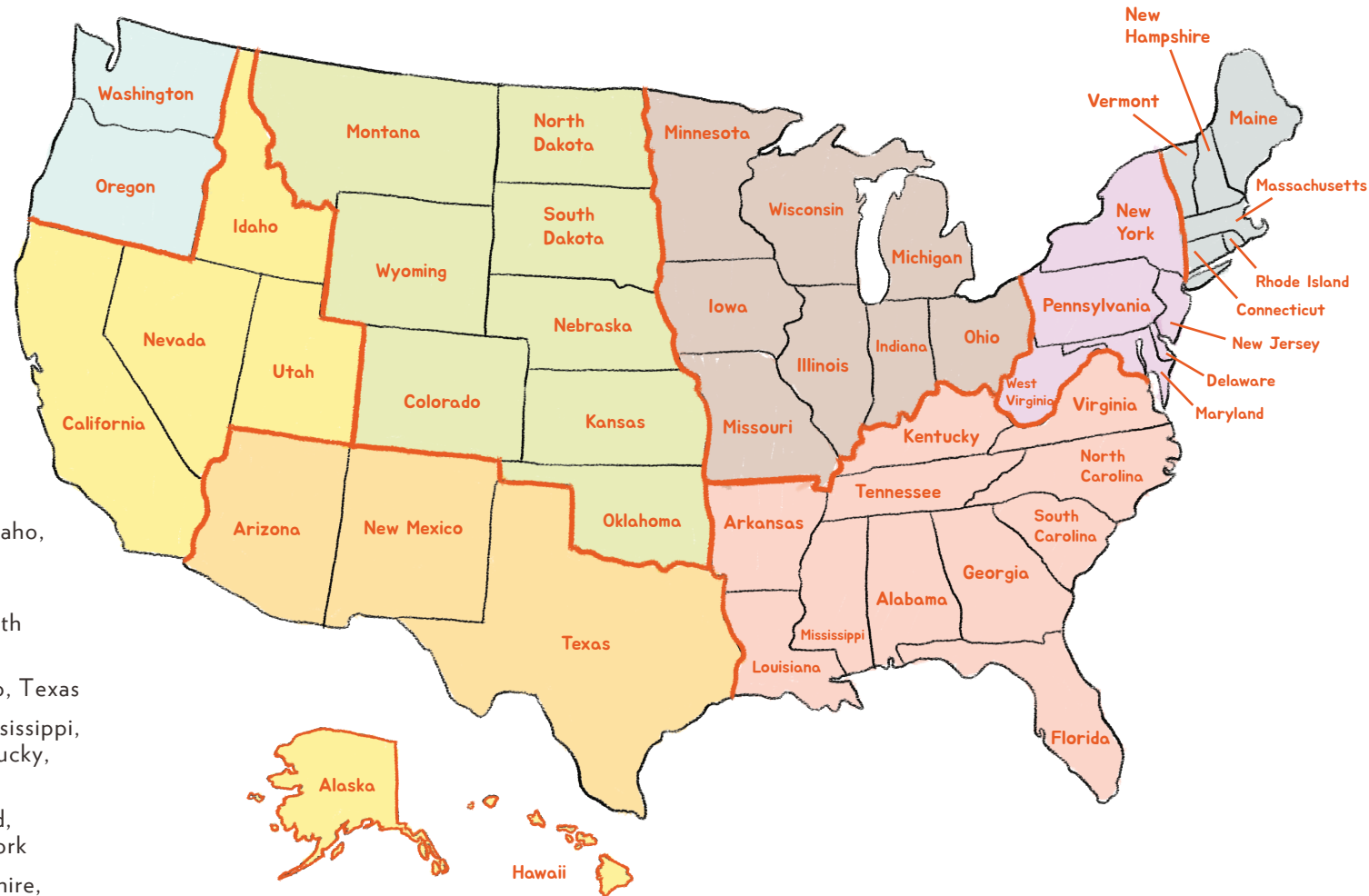
VERMONT





Regions of the United States Answer Key

The **United States** is divided into several different regions based on geography, culture, climate, history, and many other factors. The map below shows where each region of the United States is approximately located. In the list on the left, each region is named along with the states it covers. Find each region on the map, color it in, and label the states.



U.S. Regions

Northwest (Blue): Washington, Oregon

West (Yellow): California, Nevada, Utah, Idaho, Hawaii, Alaska

Great Plains (Green): Montana, Wyoming, Colorado, Oklahoma, Kansas, Nebraska, South Dakota, North Dakota

Southwest (Orange): Arizona, New Mexico, Texas

Southeast (Pink): Louisiana, Arkansas, Mississippi, Alabama, Georgia, Tennessee, Florida, Kentucky, Virginia, North Carolina, South Carolina

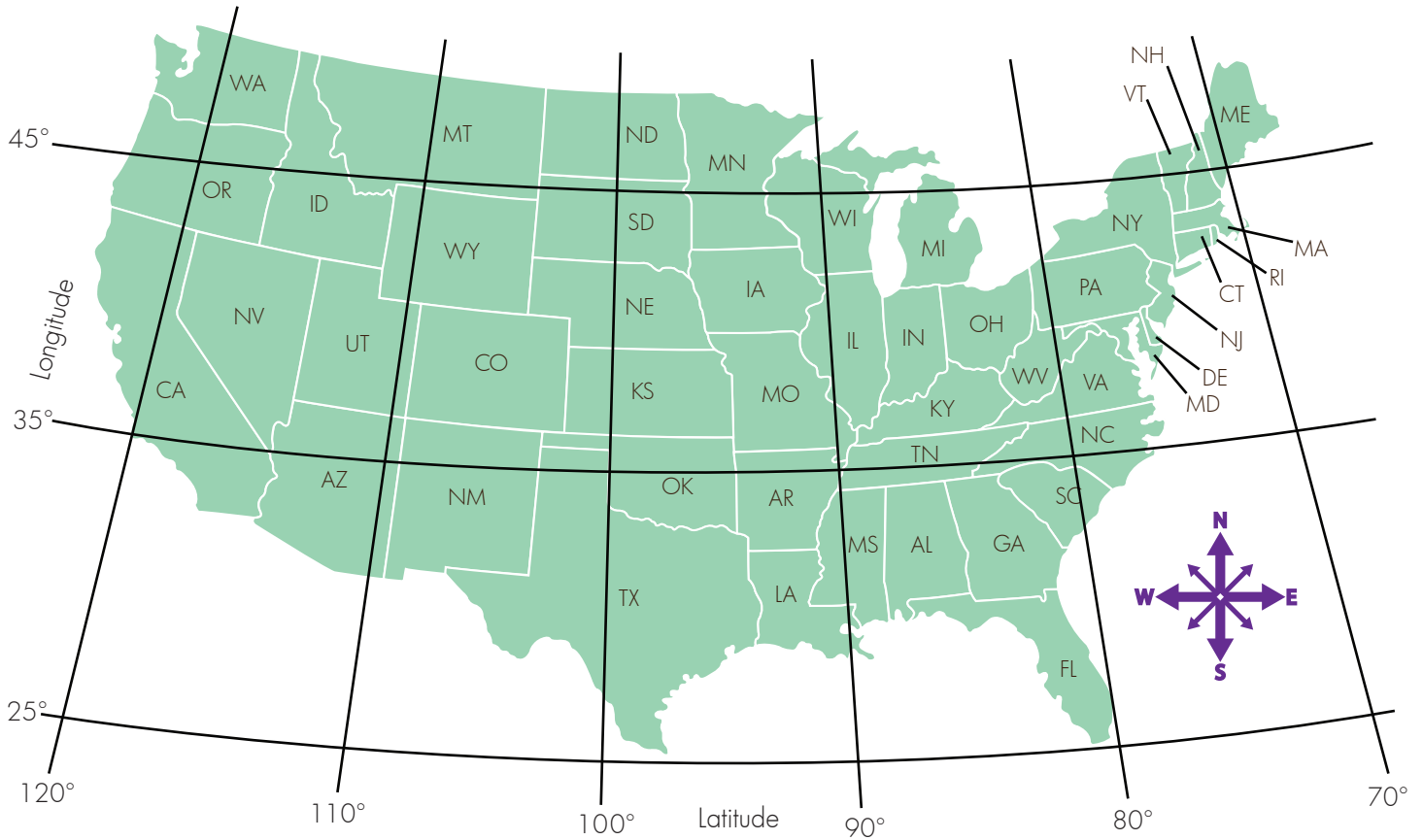
Northeast (Grey): West Virginia, Maryland, Delaware, Pennsylvania, New Jersey, New York

New England (Violet): Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island

Midwest (Brown): Illinois, Wisconsin, Michigan, Minnesota, Iowa, Indiana, Ohio, Missouri

Answer Key State Scavenger Hunt

Zach and Ronnie are on a state scavenger hunt.
Use the clues below to help them find the states they're looking for!



1. Start in Wyoming. Move one state north and then 3 states to the east.
What state are you in? **Wisconsin**
2. Start in Alabama. Move one state north. Follow the 35° latitude line west 4 states. What state are you in? **New Mexico**
3. Start in east Michigan. Move to the state that is south and east.
Move one state northeast. Then go one more state north. What state are you in? **New York**
4. Start in South Dakota. Follow the 100° longitude line 2 states south.
Go 2 states west. Then go to the bordering northwest state. What state are you in? **Idaho**

The Sun: A Diagram

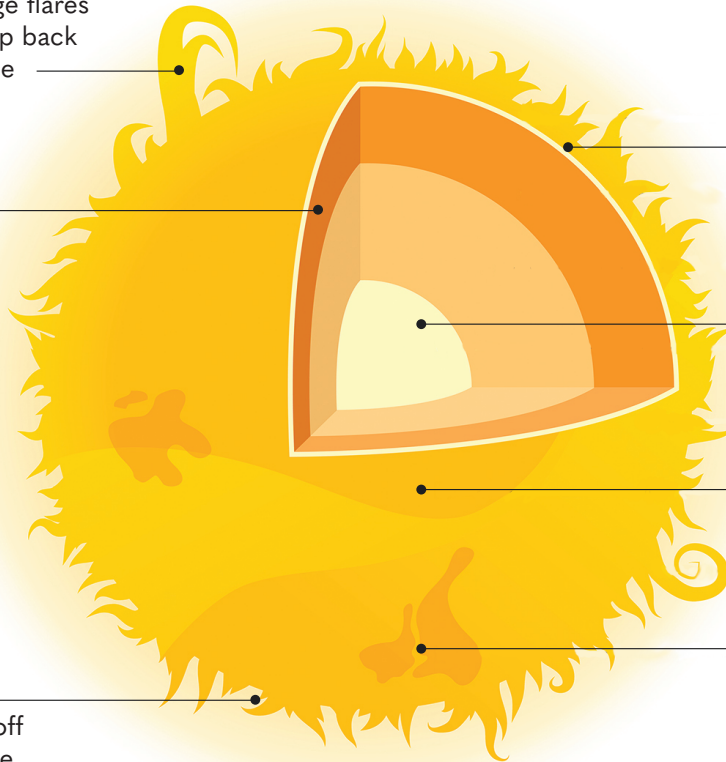
The sun is our star. All of the planets in our solar system orbit around it. It is made of very hot gases, mostly hydrogen and helium, that provide the light and heat for our solar system.

Answer the questions at the bottom of the page using what you have learned.

prominences: large flares of energy that loop back to the sun's surface

photosphere: the visible layer of the sun, but it is cooler than the outer two layers

flares: bursts of energy that flash off of the sun's surface



corona: the outermost surface of the sun. It is only visible during a solar eclipse, and is much hotter than the visible surface of the sun.

core: the hottest part of the solar system. Almost all of the sun's energy is produced here by fusion, and moves outwards.

chromosphere: a reddish color, but it is not visible to the eye normally. We can only see it during a solar eclipse.

sunspots: areas on the sun's surface that appear darker because they are of a lower temperature than surrounding areas

Questions

1. What is the difference between a flare and a prominence?

A flare flashes off of the sun's surface, while a prominence loops back to the sun's surface.

2. What part of the sun produces the most amount of heat and light?

The core produces the majority of the sun's heat and light.

3. What two parts of the sun's outer layer are only visible from Earth during a solar eclipse?

The corona and the chromosphere are both only visible during a solar eclipse.

4. Why are sunspots darker than surrounding areas?

Sunspots are darker than surrounding areas because they are a lower temperature.

5. What part of the sun do we see from Earth?

We can see the photosphere from Earth.

Answer Key Magnet Myths Answers

1. If you can manipulate metal to be magnetic, do you think you can demagnetize something? How would this work?

You can reduce the strength of a magnet (or completely demagnetize it) by exposing it to a magnetic field that is aligned in the opposite direction.

2. Magnets do one of two things, repel or attract. Why is this?

There are two types of electric charges, positive and negative, or north and south pole. If the same pole of two magnets are put close each other they will repel, or push apart. If different poles are close to each other, they will be attracted to each other and pull together.