Well lovies we're here. I can see the finish line. Let's pace ourselves out and get there strong.

Reading

Week 1 (18th-22nd): Work on Mr. Popper's Penguins final project. Remember it is due Friday, May 22nd, and although you will not hand it in until June, I will be calling each student via Zoom so I can hear it on Friday. Due to the fact that no other work is given in reading that week, if it is not ready by Friday, points will be deducted for each day that it is late. To help you with this project Tuesday, May 19th we will be reviewing the concepts of Topic Sentences, Main Ideas, and Main Idea Mapping. I will be available Wednesday and Thursday if students or parents have questions and/or to check rough drafts (You are not required to turn in rough drafts. You can email me copies if you need assistance). Rough drafts must be submitted to my email prior to the beginning of the zoom session so I have ample time to go over the material. Remember your alternate endings should be fun and creative. Be sure to check spelling, grammar and especially punctuation. I can't wait to see the finished copies!

Week 2: I have a special treat lined up for you from now until the end of the school year. We will be having a featured guest speaker that will be assisting us with our final reading theme, fairytales and fables. Your guest speaker will be reading a selected fairy tale or fable to you each day in zoom class. Afterwards, we will be discussing our final batch of literary skills including, P.O.V, Problem Solving, and Character Development/ Character Traits. Your final project will be to create your own fairytale, featuring you as the main character. The genre will be fiction fantasy. This leaves us open to many possibilities. Your fairy tale can be as long as you want, but must be at least 2 paragraphs long, 4-5 sentences per paragraph. Each paragraph should be illustrated. This will be due at the final packet drop off at the end of the school year. *** We will be working out of our Reading Comprehension Interactive workbook for the next two weeks in addition to listening to the read aloud stories. So students will need to bring their Reading Comprehension Interactive workbooks with them to class. No other books will be needed. *** I will be sending links to the YouTube videos of the stories read aloud, so the children can watch them again during their down time if they wish.

5/25: Memorial Day! No class!

5/26: Guest speaker reads Tikki Tikki Tembo.

5/27: Guest speaker reads The Three Little Pigs.

5/28: Free day!!

5/29: Guest speaker reads The True Story of the Three Little Pigs.

Week 3:

6/1: Guest speaker reads Little Red Riding Hood.

6/2: Free day!

6/3: Guest speaker reads Lon Po Po.

6/4: Half day! Put the finishing touches on your fairytales.

6/5: Half day! Put the finishing touches on your fairytales.

Name: _____

Due 5/19

Identify the Topic Sentence

The topic sentence in a paragraph states the main idea of the paragraph. While it is usually at the beginning of the paragraph, it also can be in the middle or end of it.

In each paragraph below, underline the topic sentence.

1. The best trip my family ever took was to New Orleans, Louisiana. We drove there in two days. I didn't think it would be very interesting, but I was wrong. We saw the Mississippi River, rode a horse carriage in the French Quarter, and visited a cemetery where everyone was buried above the ground. I liked the food best, especially the New Orleans doughnuts called beignets.

2. No one likes to eat with a dirty knife, fork, or spoon. It is important to completely wash all utensils before using them. Clean utensils won't transmit germs and bacteria. They also are more pleasant to eat with.

3. Many people think poetry is old-fashioned and uninteresting. They don't realize that every time they hear a song sung, they are hearing poetry in the form of song lyrics. Just like many written poems, many song lyrics use rhythm, rhyme, and literary imagery. It turns out that poetry isn't old-fashioned; it's as modern as the latest hit song!

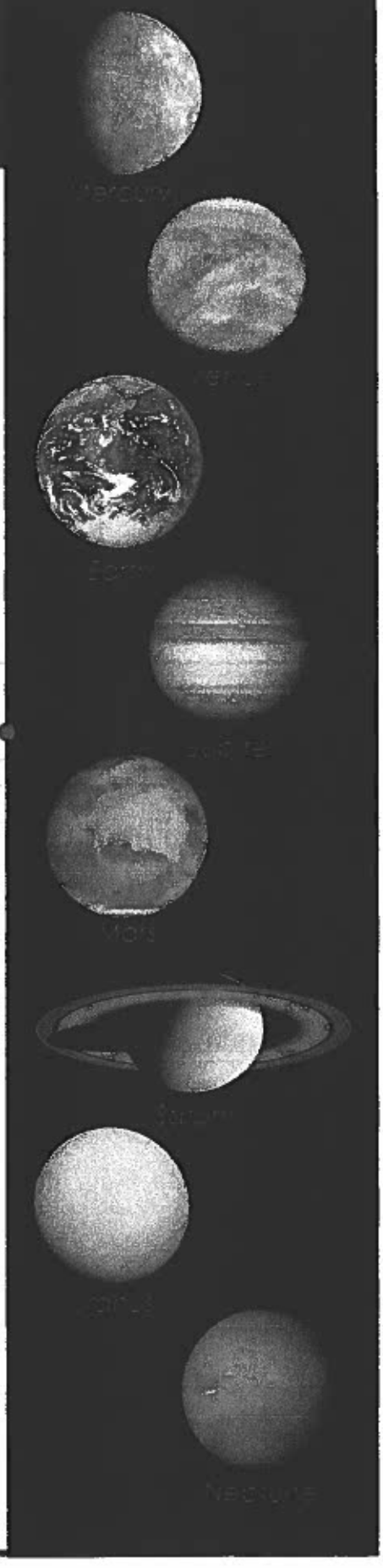
4. Growing a garden can be fun, good exercise, and will provide fresh fruits and vegetables for the gardener. It is interesting to watch the seeds pop their heads above the soil for the first time. It is sometimes hard to believe that a little seed can become a large vine or plant in just a few weeks. Planting the seeds and pulling weeds are good exercise for anyone. Then, after watching the plant grow and produce, the gardener ends up with delicious tomatoes, beans, or other yummy produce from the garden.

5. Sometimes it is hard to fall asleep. Maybe you are not sleepy, or maybe you are thinking about what happened during the day. You can also lie awake if a big event, like a test or a party, is happening the next day. There are several things you can do to try and fall asleep. You can try counting sheep, or just counting, which will keep your mind busy with a repetitious activity. Sometimes listening to soft music or gentle sounds, like rain, helps. You can even try telling yourself a story, which may distract your mind enough that you will be asleep in no time.

Find the Main Idea

Planets in the Solar System

There are eight planets in the Solar System, and each one is very different. Some planets, like Jupiter and Saturn are very large. Others, like Mercury and Mars are smaller. Jupiter has moons that are larger than Mercury. The planets also have different atmospheres. Uranus, Jupiter and Saturn have atmospheres of hydrogen and helium. The atmosphere on Venus is made up of carbon dioxide. Earth has a nitrogen and oxygen atmosphere. Neptune's atmosphere is mostly hydrogen. The planets also have different temperatures. Uranus is the coldest and Venus is the hottest.



Find the Main Idea

Write the main idea of the paragraph in your own words.

_____

_____

Write two supporting ideas for the main idea.

1. _____

_____

2. _____

_____

Name: _____

5/19

Main Idea Map

Paragraph 1 — Introduction

Paragraph 2 — Topic Sentence

Paragraph 3 — Topic Sentence

Paragraph 4 — Topic Sentence

Supporting Details

1.

2.

3.

Supporting Details

1.

2.

3.

Supporting Details

1.

2.

3.

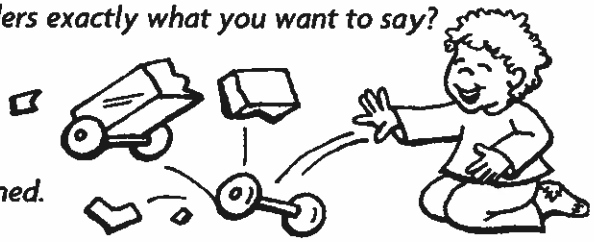
Conclusion

Action Alert

When you write, think about the verbs that you choose to express action in your sentences. Are they as exact as they can be? Do they tell your readers exactly what you want to say?

The child **broke** *the plastic toy.*
The child **smashed** *the plastic toy.*
The child **cracked** *the plastic toy.*

Each verb creates a different picture of what happened.



Read each sentence. Underline the verb. Then rewrite each sentence using a more exact verb. You may want to use a thesaurus.

1. **Three young hikers went up the steep hill.**

_____

2. **A lone runner ran around the track.**

_____

3. **The wind blew through the treetops.**

_____

4. **The janitor cleaned the scuff marks off the floor.**

_____

5. **The audience laughed at the hilarious scene.**

_____

6. **The diners ate the delicious meal.**

_____

7. **The young tourists liked the castle most of all.**

_____

8. **The children slept for about an hour.**

_____

9. **The biologist looked at the unusual specimen.**

_____

Here are some commonly used verbs: *make, tell, say, speak, ride.* On a sheet of paper, list as many exact verbs as you can think of for each one. Use a thesaurus for additional words. Then write several sentences using the exact words on your list.

Bible

Read pgs.96-99, the story of Jonah. Complete packet pgs.1-3.

Jonah and the Very Big Fish

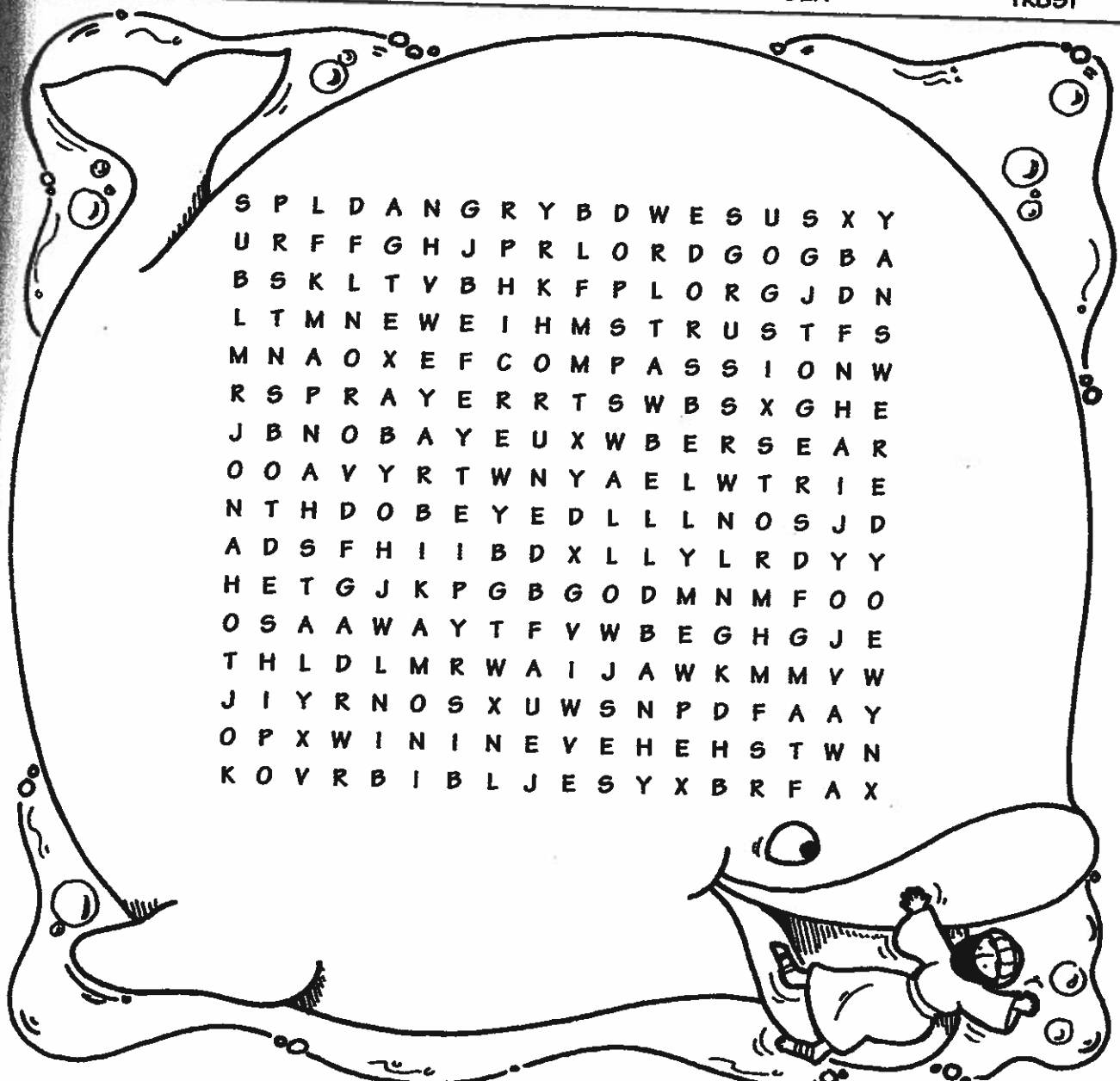
Jonah 1–2. God told Jonah to go to Nineveh and preach. Jonah ran away and found himself in a dark place. After three days, Jonah began to praise the Lord and found himself at the beach! Jonah learned the hard way that the place of obedience is always the best place to be!

Circle the words from the word bank in the puzzle. The words can be found across, down, and diagonally.

Word Bank

ANGRY	BIG FISH	JONAH	PRAYER	SHIP
ANSWERED	COMPASSION	LORD	RUN	STORM
AWAY	FLEE	NINEVEH	SAVE	SWALLOW
BELLY	GOD	OBEYED	SEA	TRUST

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

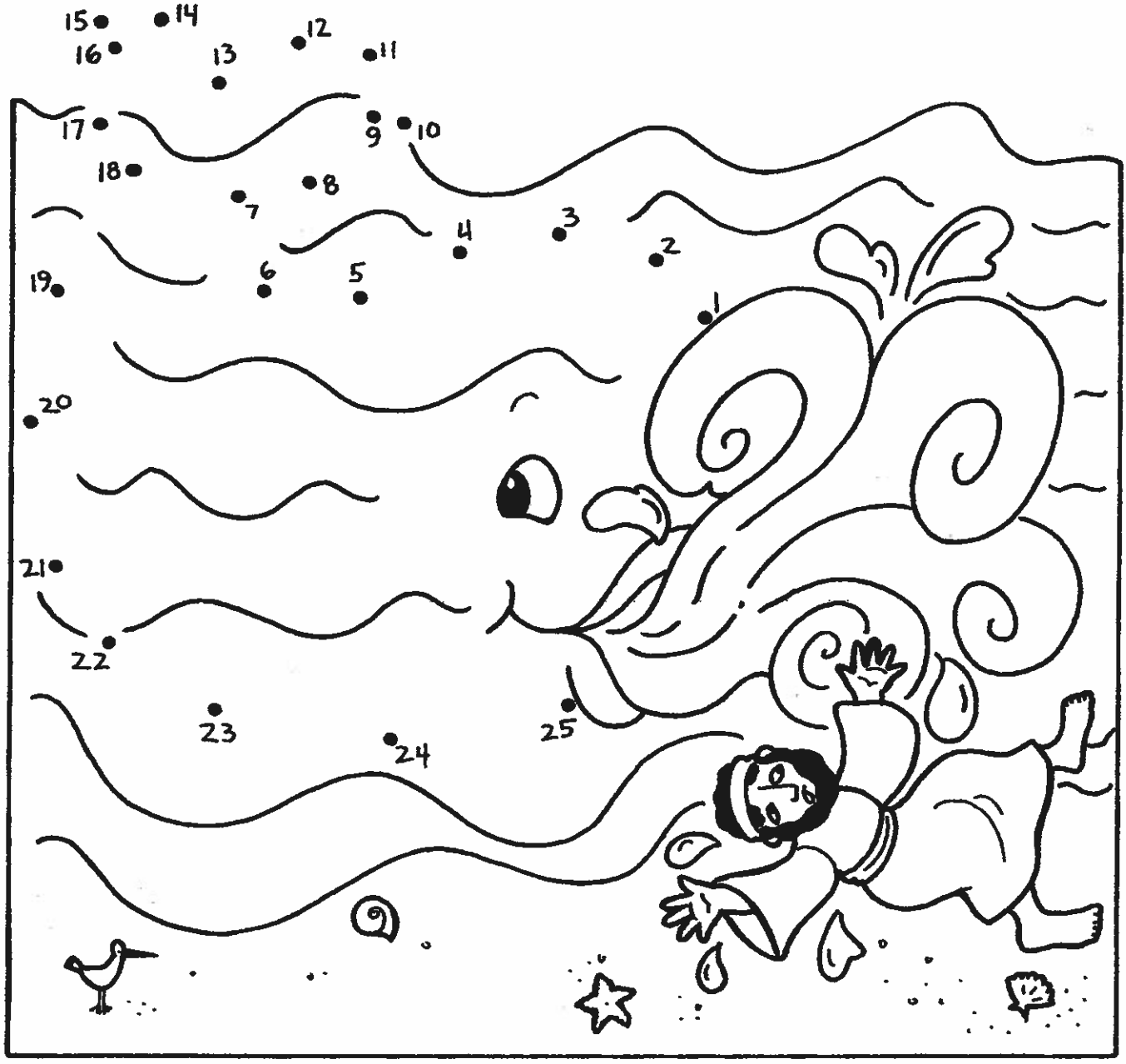


Name _____

Jonah and the Big Fish

Read Jonah 1-2 God told Jonah to go to Nineveh and preach. Jonah ran away from the Lord and found himself in a dark, smelly place. After three days, he began to praise the Lord and found himself at the beach! Jonah learned the hard way that the place of obedience is always the best place to be!

Connect the dots from 1-25 to find out where Jonah spent three days and three nights.



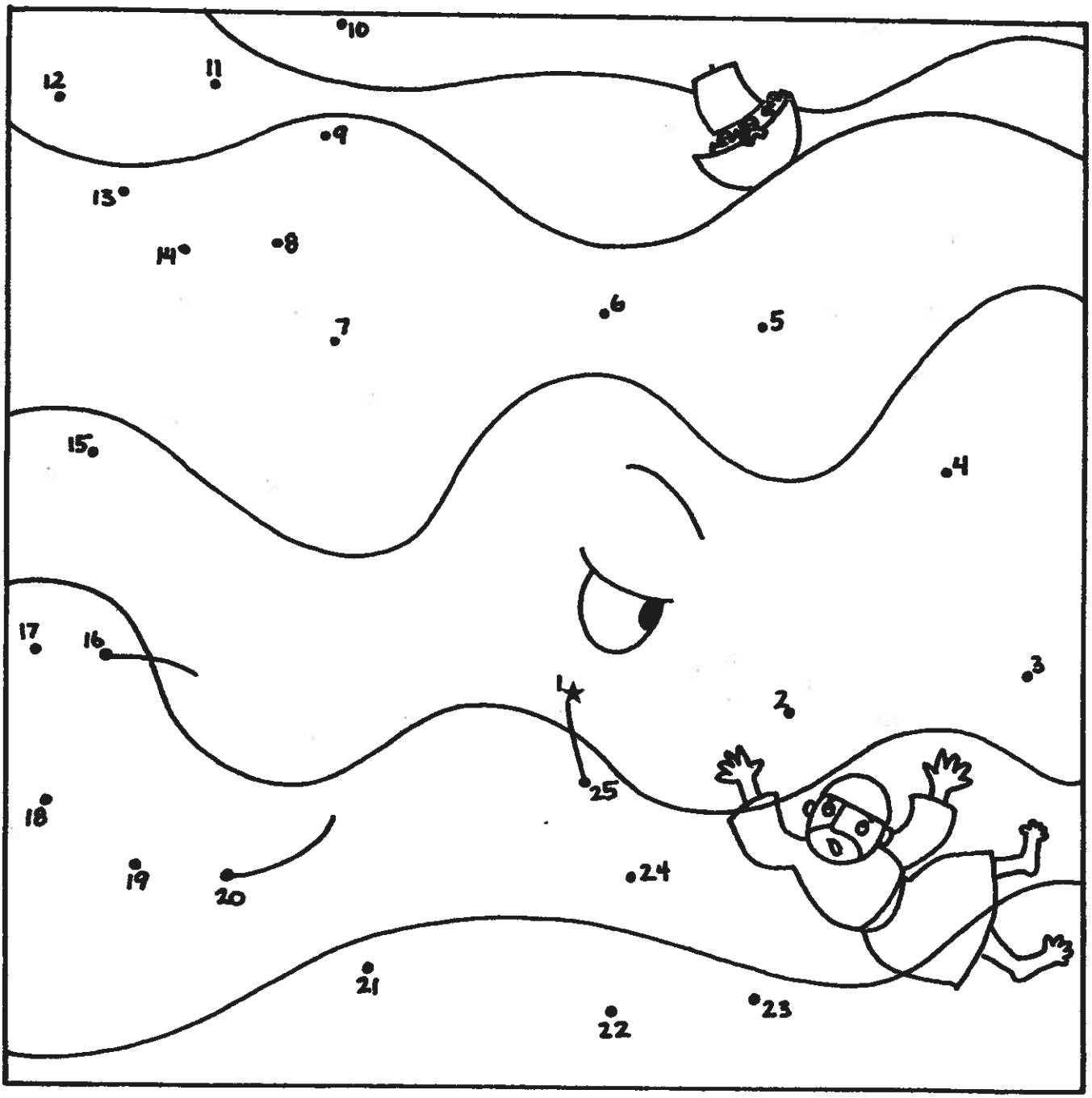
Name _____

A Big Gulp!

Jonah 1

Jonah tried to run away from God and ended up in the ocean.
God sent a big fish to rescue him.

If you're on the wrong path, ask the Lord to help you. He will!



History

Week 1

5/18: Read Ch. 6, The Civil War. Answer the Interesting Words worksheet.

5/19: Complete The Civil War coloring map. Also, read the worksheet Abraham Lincoln and answer the questions on pg. 2. This is a quiz.

5/20: Read Ch. 7, The End of Slavery. Complete the Interesting Words worksheet.

5/21: Read Ch. 8, A Two Minute Speech. Complete the Interesting Words worksheet.

5/22: Complete Activity 5 in Reading Comprehension book.

Week 2

5/25: Memorial Day! No classes!

5/26: Read the Gettysburg Address article and complete The 5W's worksheet.

5/27: Read The Gettysburg Address article, and complete comprehension questions. This is a quiz.

5/28: Read Ch.9, The War is Won. Complete the Interesting Words worksheet.

5/29: Complete Activity 19 in Reading Comprehension book, Cause and Effect. Complete the Cause and Effect worksheet for Lincoln.

Week 3

6/1: Read Ch. 10, Farewell to the President. Complete the Interesting Words worksheet. Complete Activity 18, Sequencing.

6/2: Complete Abraham Lincoln mini book and start the Abraham Lincoln unit test. The test is due when packets are returned. This is an open book test.

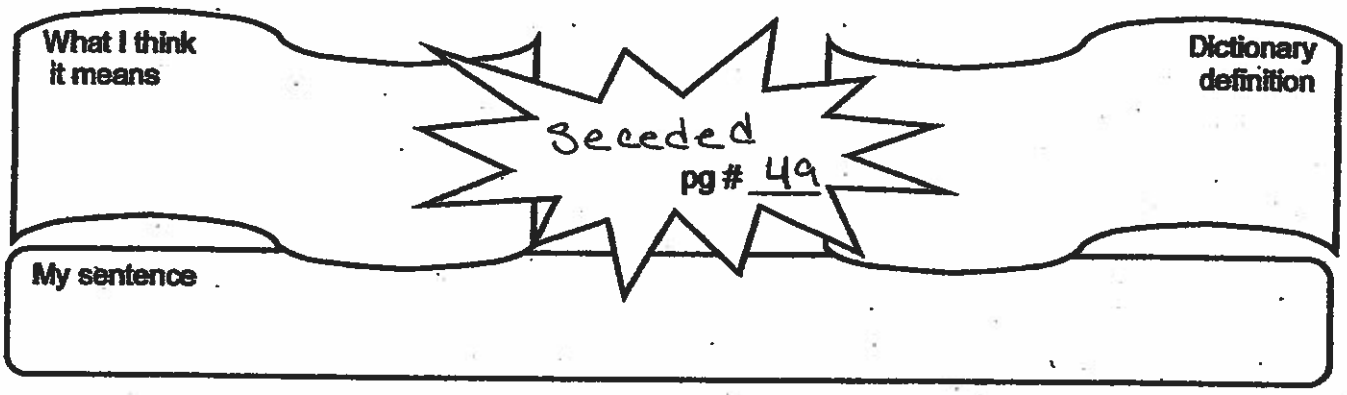
6/3-6/5: Finish working on Abraham Lincoln unit test.

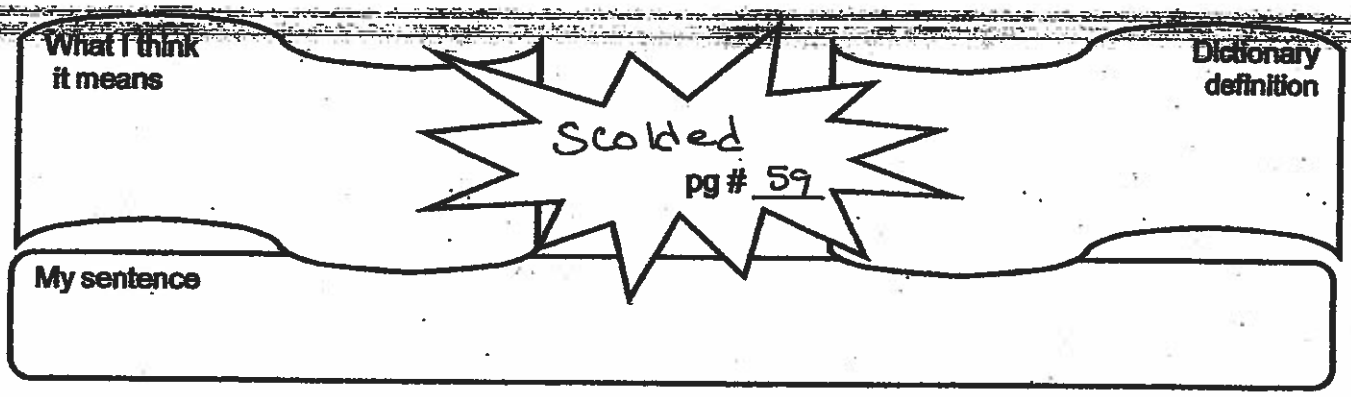
Name_____ Date_____

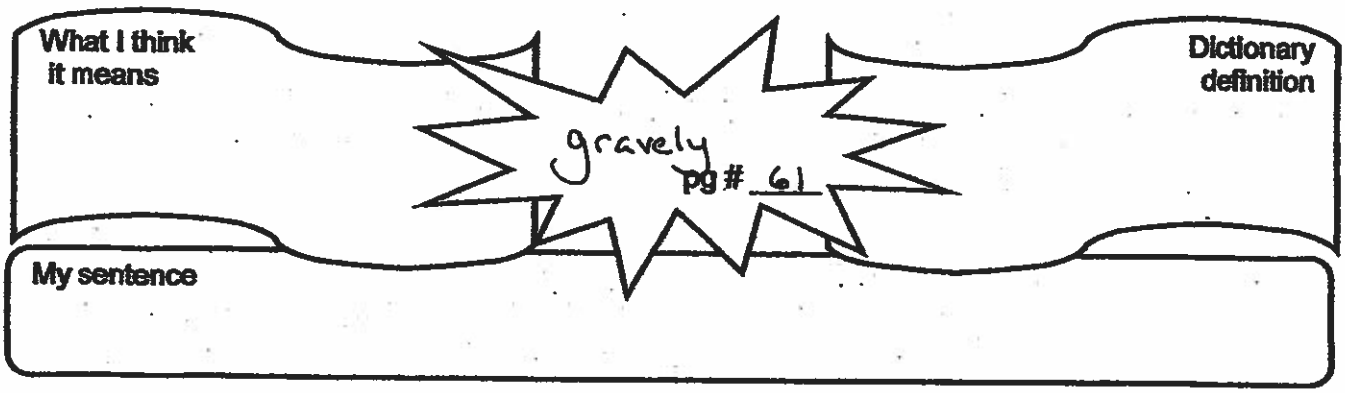
Interesting Words

Find an interesting word in your story or chapter. Write it in the middle shape along with the page number where you found it. Then fill in the rest of the shapes.

Title Chapter 6- Civil War

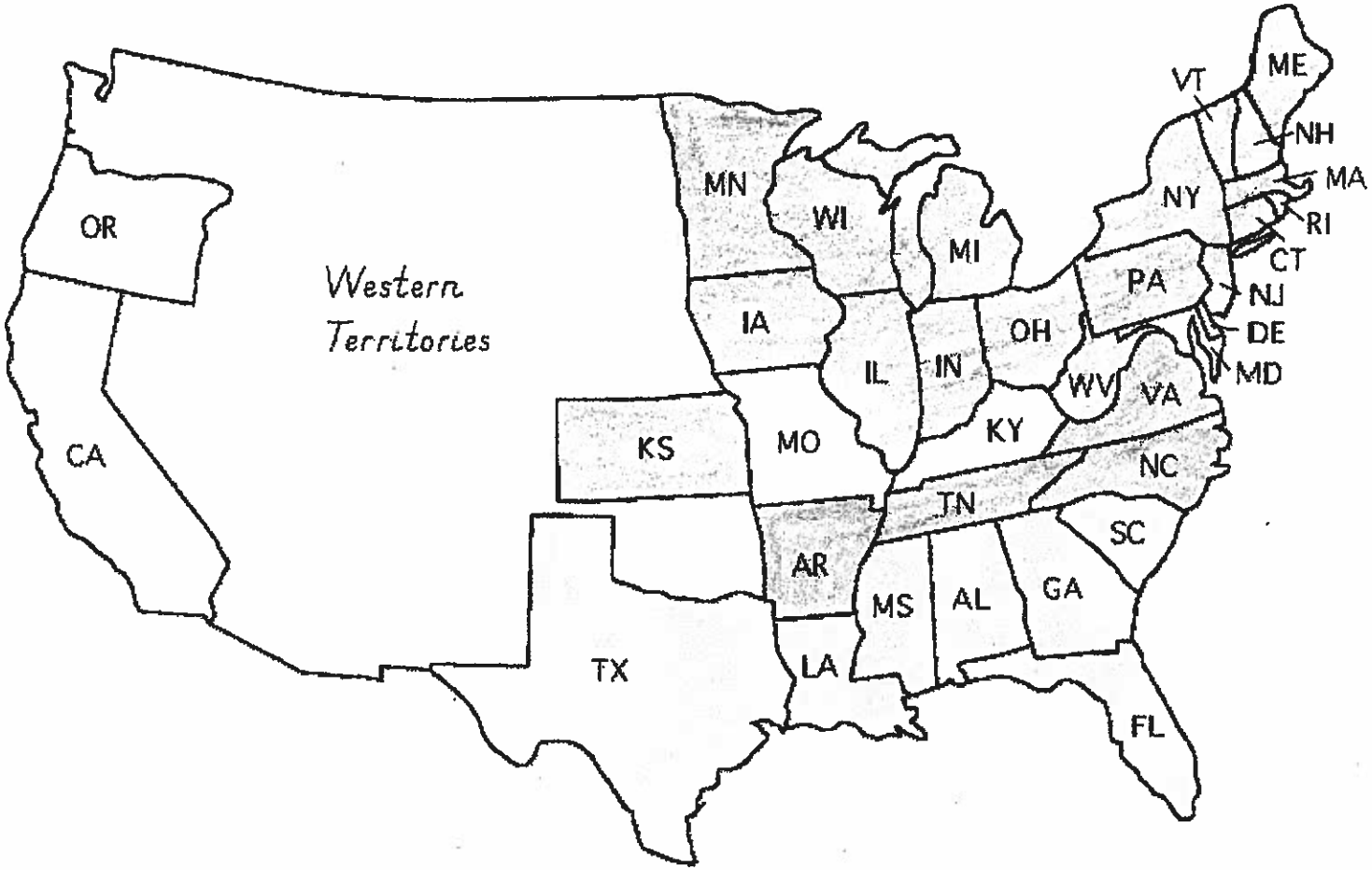






Name _____ Date _____

The Civil War



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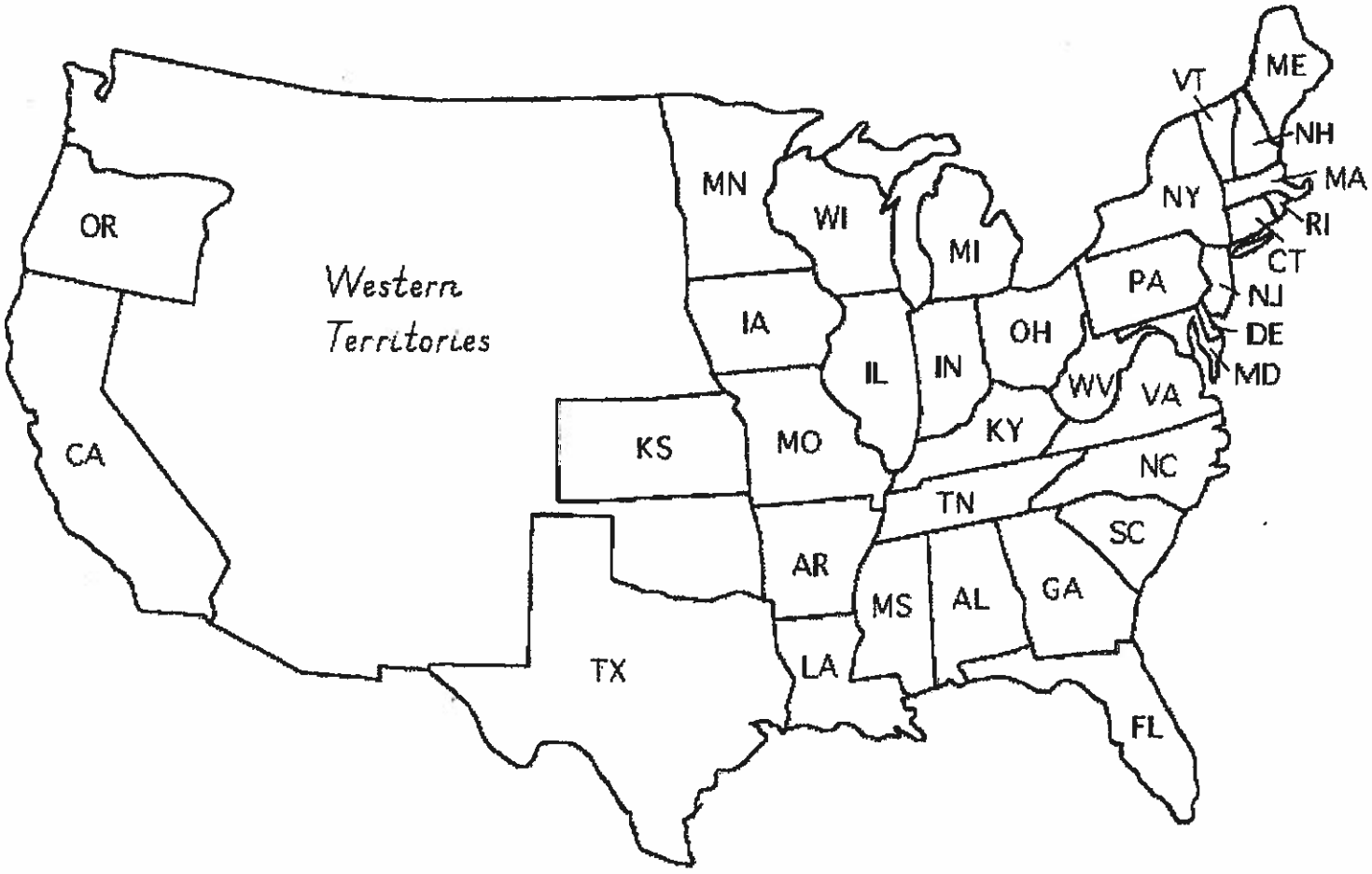
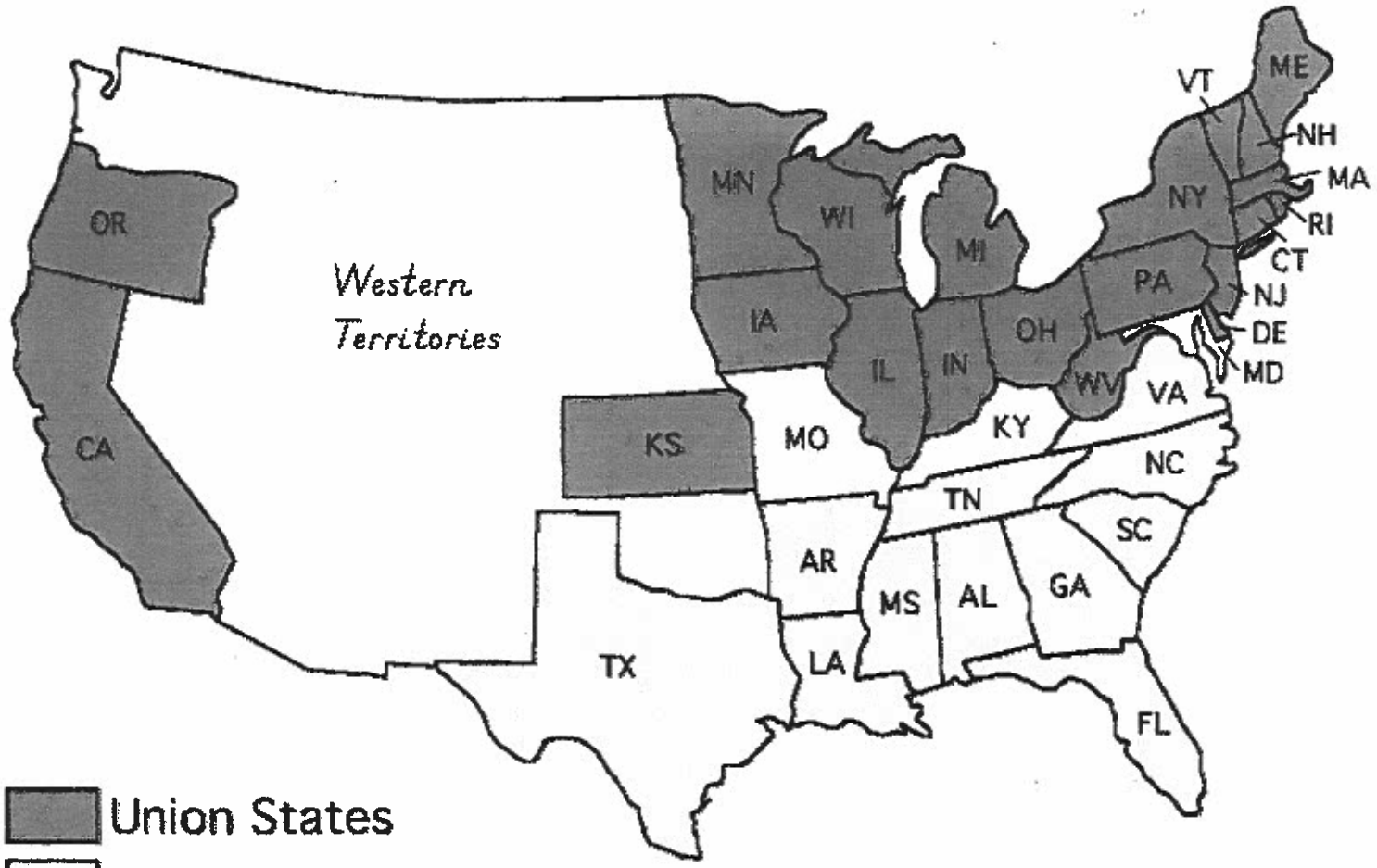
The Civil War



Name _____ Date _____

The Civil War



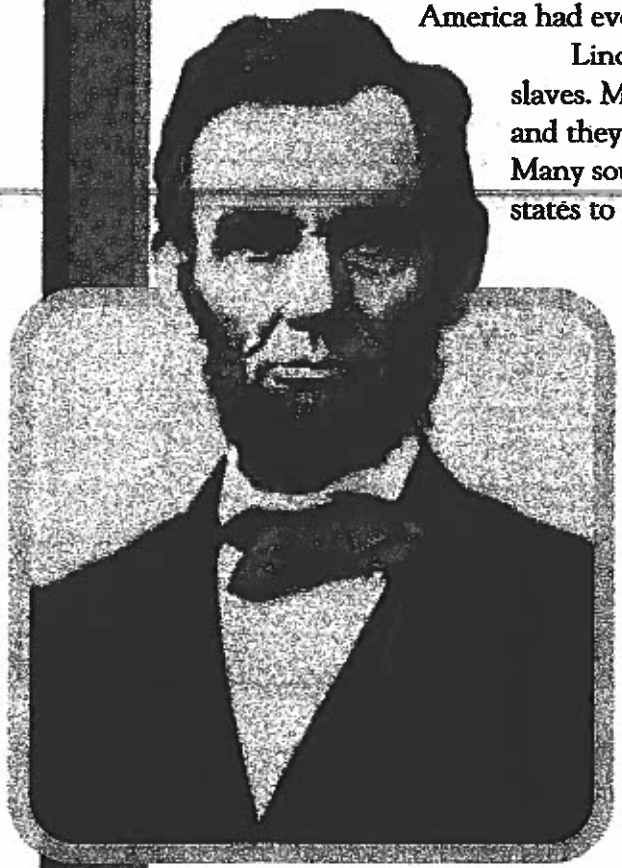
Abraham Lincoln

Our nation's hero wasn't always considered heroic

Abraham Lincoln was one of America's greatest presidents. He led our country through one of the most frightening times in its history, the Civil War, when the North was fighting the South, and it seemed like our country would crack in two.

Today we honor Lincoln as a hero—the simple boy from the Illinois woods who became one of our bravest, wisest leaders. We celebrate his birthday, live in towns named after him, and fill our piggybanks with pennies that feature his famous profile. More books have been written about Abraham Lincoln than about any other American in history.

So you might be surprised to learn that back in 1861, when the Civil War began, most Americans did not consider Lincoln a hero at all. In fact, he was the most hated president America had ever known.



Lincoln was hated in the South because he wanted to free the slaves. Many southern farmers depended on slaves for free labor, and they were furious that Lincoln wanted to take their slaves away. Many southerners felt so strongly that they wanted the southern states to join together and become a separate country altogether!

On the other hand, many in the North thought that Lincoln was a coward for not having freed the slaves already. They didn't care about the southern states' threat to break away. Many blamed Lincoln for the Civil War, which was the bloodiest war America had ever known. More than 600,000 people were killed during that terrible war. Lincoln's heart broke for each one. "Sometimes I think I'm the tiredest man on earth," he said.

Another person might have withered from the pressure and criticism. But Lincoln was tough. He refused to give up the fight to keep our country whole. In 1862, he signed the Emancipation Proclamation, which freed all the slaves in the southern states.

Finally, on April 9, 1864, General Robert E. Lee surrendered his army. Lincoln said, "I never felt so happy in my life."

Tragically, just five days later, an angry southerner shot and killed Lincoln as he and his wife were watching a play. A great president was lost. But his achievements endure.

Name: _____ Date: _____

Directions: Read about Abraham Lincoln. Then fill in the circle next to the best answer for each question.

1. In the Civil War, who fought against the northern American states?

- ○ **A.** slaves
- ○ **B.** the southern American states
- ○ **C.** England
- ○ **D.** Indians

2. This article is mostly about

- ○ **E.** great U.S. presidents.
- ○ **F.** battles of the Civil War.
- ○ **G.** Abraham Lincoln's presidency.
- ○ **H.** slavery.

3. Why did Lincoln say he was "the tiredest man on earth"?

- ○ **I.** His sadness over the soldiers' deaths made him weary.
- ○ **J.** He always stayed up late reading.
- ○ **K.** The job of being president was too hard for him.
- ○ **L.** He was tired of slavery.

4. How would you describe Lincoln after reading this article?

- ○ **M.** evil and pushy
- ○ **N.** tall and handsome
- ○ **O.** tough but kind
- ○ **P.** weak and sickly

5. Which of the following is an opinion?

- ○ **Q.** 600,000 died in the Civil War.
- ○ **R.** Lincoln signed the Emancipation Proclamation in 1862.
- ○ **S.** Abraham Lincoln was a great president.
- ○ **T.** In 1861, most people hated Lincoln.

6. During his presidency, most people _____ President Lincoln.

- ○ **U.** loved
- ○ **V.** admired
- ○ **W.** had no opinion about
- ○ **X.** hated

Write It Out!

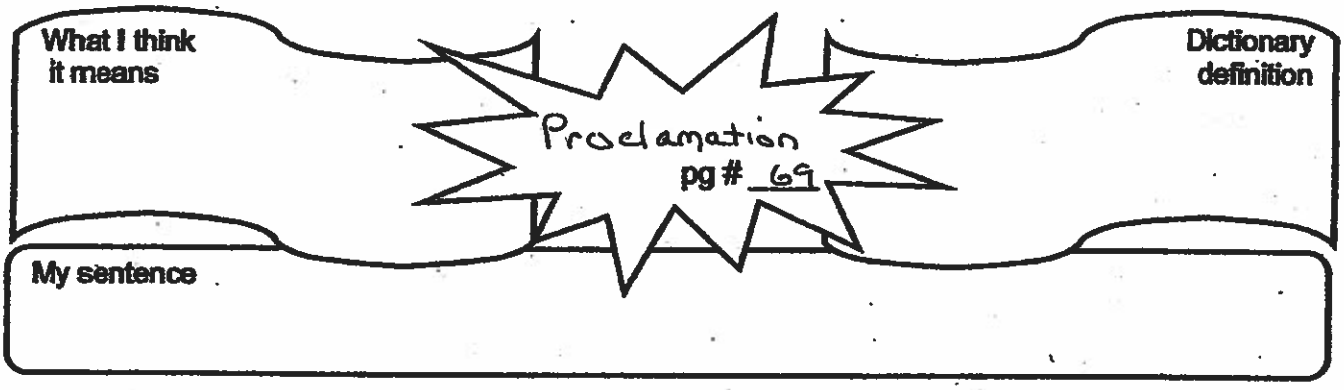
Do you think Abraham Lincoln was a great president? Why or why not? Write a paragraph that includes three reasons. For each reason, write supporting sentences or additional details.

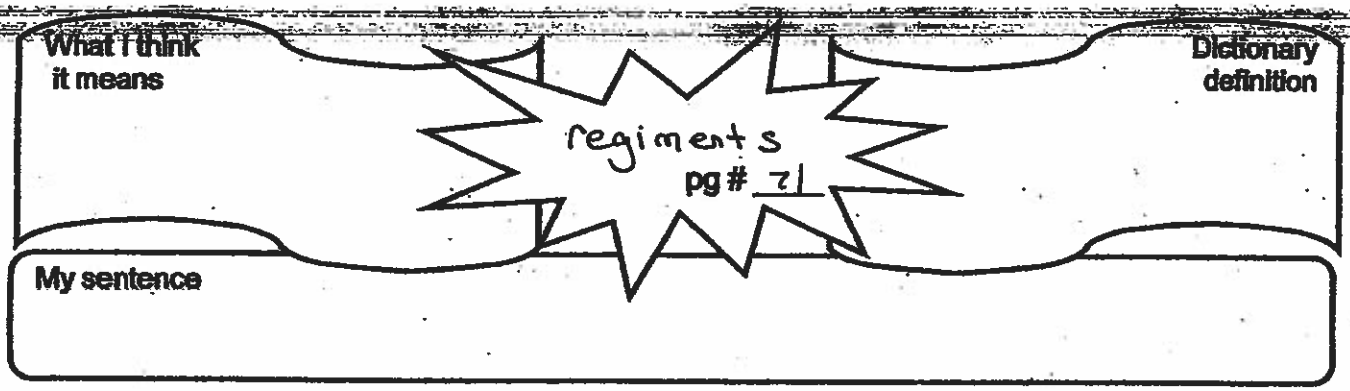
Name_____ Date_____

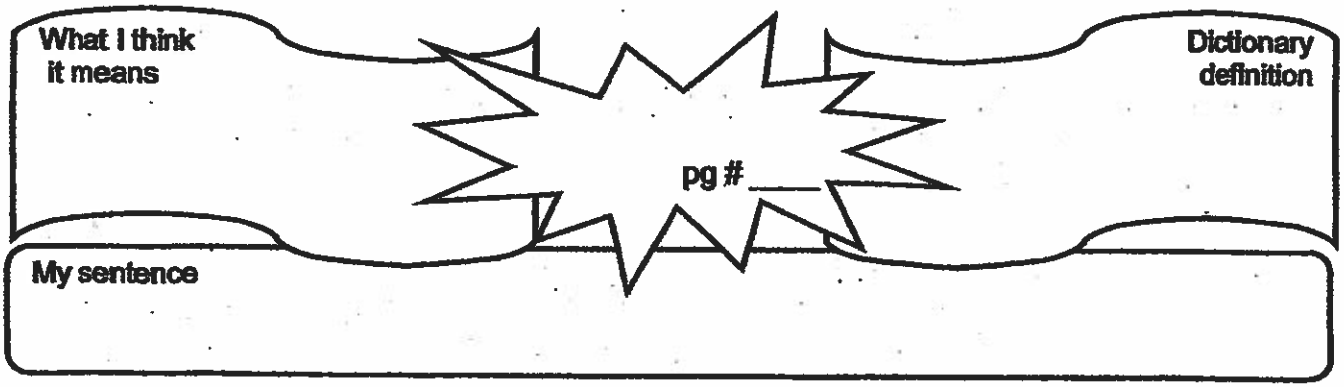
Interesting Words

Find an interesting word in your story or chapter. Write it in the middle shape along with the page number where you found it. Then fill in the rest of the shapes.

Title Chapter 7- The End of Slavery





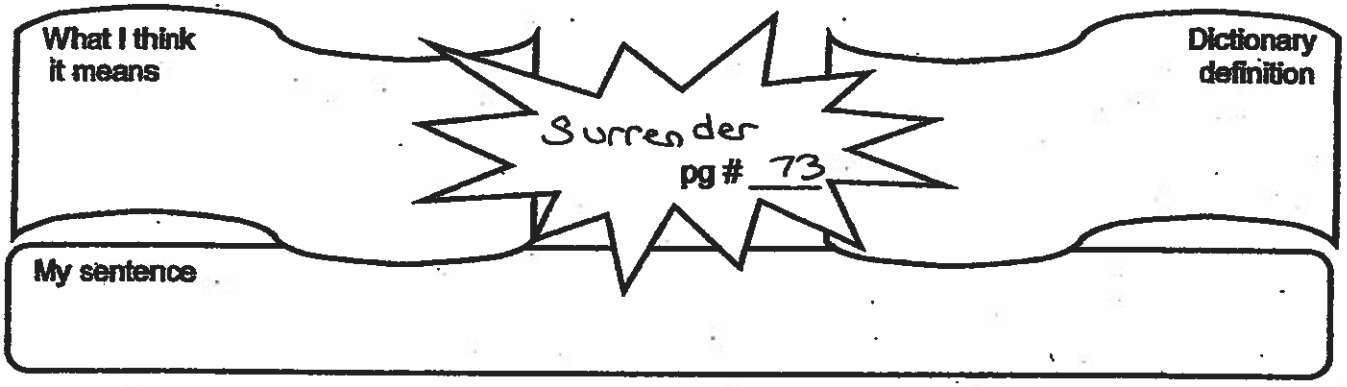


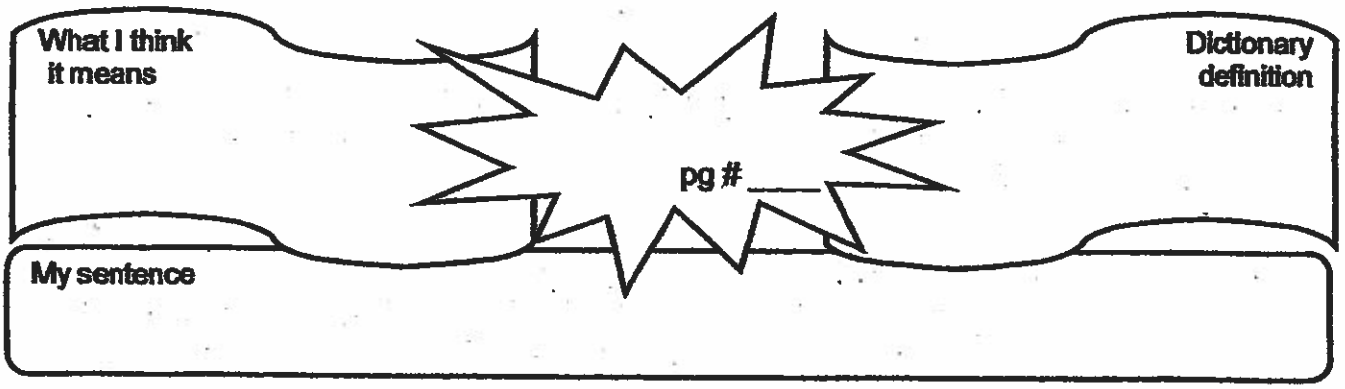
Name_____ Date_____

Interesting Words

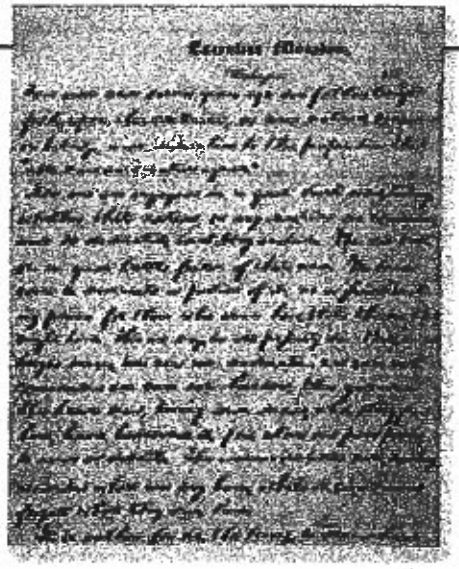
Find an interesting word in your story or chapter. Write it in the middle shape along with the page number where you found it. Then fill in the rest of the shapes.

Title Chapter 8- A Two-Minute Speech





The Gettysburg Address



On November 19, 1863, President Abraham Lincoln walked slowly to the podium at Cemetery Hill near Gettysburg, Pennsylvania. He looked out over the crowd of 15,000 people. When the crowd quieted, the president began his remarks in a clear voice:

"Four score and seven years ago ..."

Lincoln's speech was only ten sentences long. It took just two minutes to deliver. The purpose of the speech was to dedicate the Soldiers' National Cemetery. It was set on the site of a battlefield where some 50,000 men—both Northerners and Southerners—had been killed or wounded only a few months earlier, in July. "The world will little note, nor long remember, what we say here," Lincoln remarked, "but it can never forget what they did here."

When President Lincoln delivered the Gettysburg Address, the Civil War had been raging for more than two and a half years. The Battle of Gettysburg was a turning point in the war. But the end was still a long way off. Lincoln was deeply saddened by the fighting. He was anxious to pay tribute to the young men who had died.

Lincoln was torn by the Civil War. But he staunchly believed that the Union could not tolerate the secession of the Southern states. And he felt that the American ideal could not tolerate the institution of slavery. Invoking the Founding Fathers' principle that "all men are created equal," he called for a stronger resolve "that this nation under God shall have a new birth of freedom, and that government of the people, by the people, for the people shall not perish from the earth."

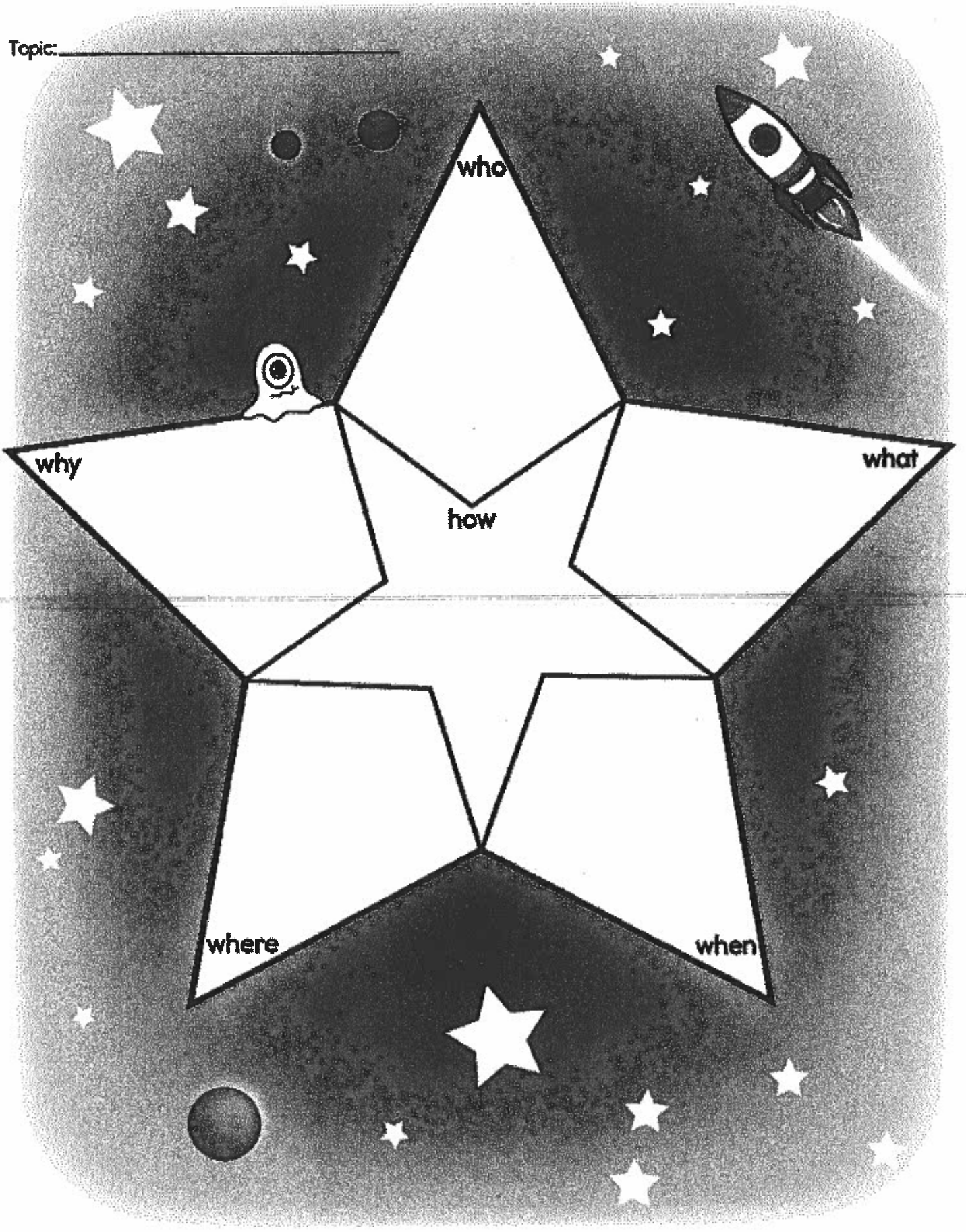
The immediate reaction to Lincoln's remarks, however, was not one of unanimous praise. Many newspapers, especially those in the Confederacy, criticized the

president's dedication. But a number of reporters and editors were deeply moved by it. "The dedicatory remarks of President Lincoln," said the *Chicago Tribune*, "will live among the annals of man."

Indeed, the Gettysburg Address has come to be regarded as a literary masterpiece. Students everywhere study Lincoln's speech because it is so powerful and eloquent in its very simplicity.

Name: _____ Date: _____

Topic: _____



Name _____ Date _____

The Gettysburg Address

by Ann Sheldon

President Abraham Lincoln governed our country during one of its darkest times, the Civil War. The Battle of Gettysburg was the bloodiest battle of the war. Over the course of three days in July 1863, more than 50,000 soldiers were killed or wounded. Given the number of dead buried on the battlefield, officials in Pennsylvania decided to purchase the land and make a national cemetery. In the autumn of that year, the president was asked to make a dedication speech at the cemetery.

The program for that day featured prayers and hymns. The main speech was given by Edward Everett, a polished speaker who had served as president of Harvard University and had been the U.S. Secretary of State. Everett spoke for two hours, describing the battle and discussing the war. After his speech, President Lincoln stepped onto the platform.

He had been asked to give only a few final remarks to the families of those who had died on this battlefield. He had worked for days planning how to explain the meaning of this terrible war between the North and the South that threatened to rip the country apart. Standing in the middle of the battlefield that would be the soldiers' final resting place, he began his speech.

He read from a folded piece of paper. "Four score and seven years ago our fathers brought forth on this continent," Lincoln began. He spoke of the founding of a country "conceived in liberty." He spoke of a country "dedicated to the proposition that all men are created equal." He never mentioned the Confederates or the Union. Instead, he talked of those who had died. He said, "we here highly resolve that these dead shall not have died in vain" and "that government of the people, by the people, for the people, shall not perish from the earth."

His words touched the hearts of those who were gathered there that day. Equality and unity were what many were hoping for and fighting for. The sacrifices made by the soldiers would not be forgotten.

Lincoln's speech was only ten sentences long and lasted only two minutes, but it is still one of the most famous speeches in U.S. history.

Family Letter
With Questions

Please send this assignment back to school by _____ .
(date)

Standard: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

Dear Family,

For this assignment, your child will practice making inferences—drawing conclusions about an author's meaning based on what the text says. When we ask a child to infer from the text, he or she will need to go back to the text for evidence. Although there is no exact place in the text where the answer is stated, there are hints about the overall idea. By reading carefully, your child can piece these together to make a logical inference. We often call this "reading between the lines."

Ask your child to read the passage aloud. Then answer these questions together. Make sure your child includes details as support and uses complete sentences.

1. According to the text, why was the time of President Lincoln's presidency considered a "dark" time? _____

_____

2. Why did President Lincoln not mention Confederate and Union soldiers in his speech? Use a direct quote to support your answer. _____

_____

_____

_____

3. Why did Lincoln's short speech make such an impact on the people who were mourning their loved ones that day? _____

_____

_____

We completed this homework assignment together.

_____ _____

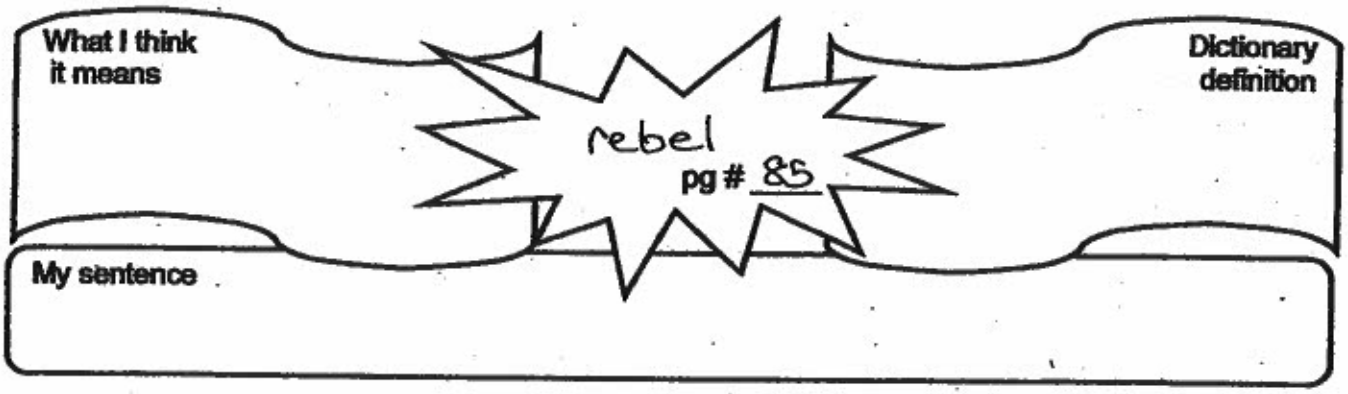
(child's signature) (family member's signature)

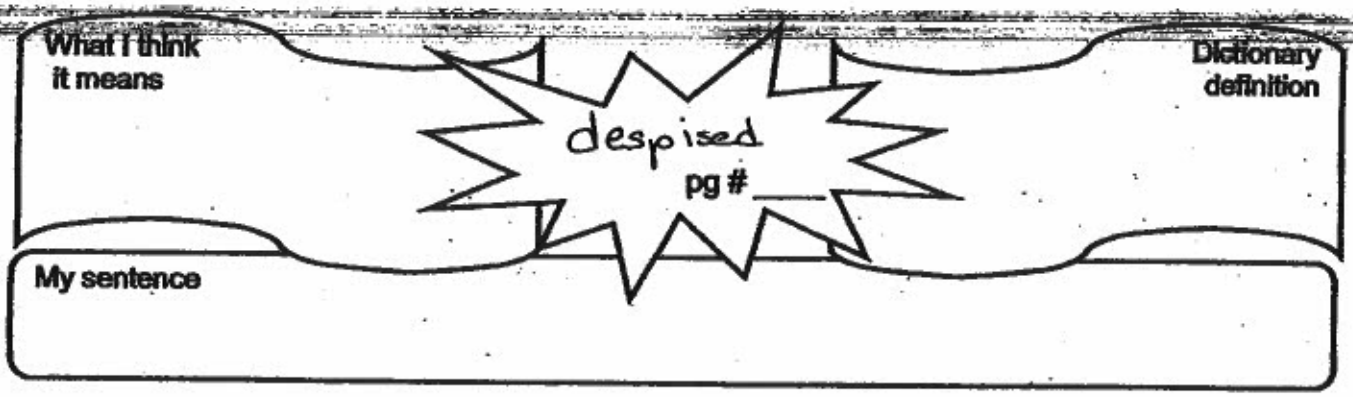
Name_____ Date_____

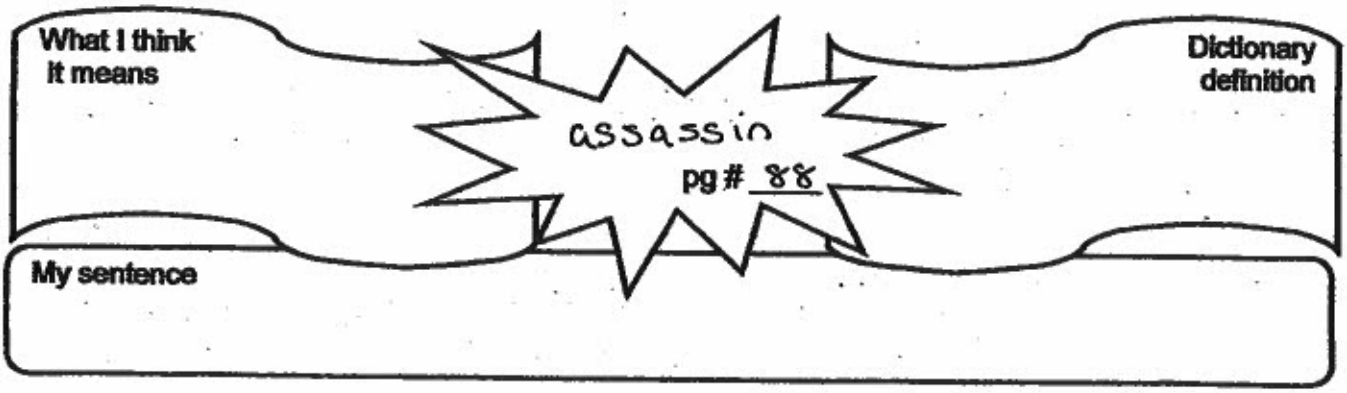
Interesting Words

Find an interesting word in your story or chapter. Write it in the middle shape along with the page number where you found it. Then fill in the rest of the shapes.

Title Chapter 9- The War is Won



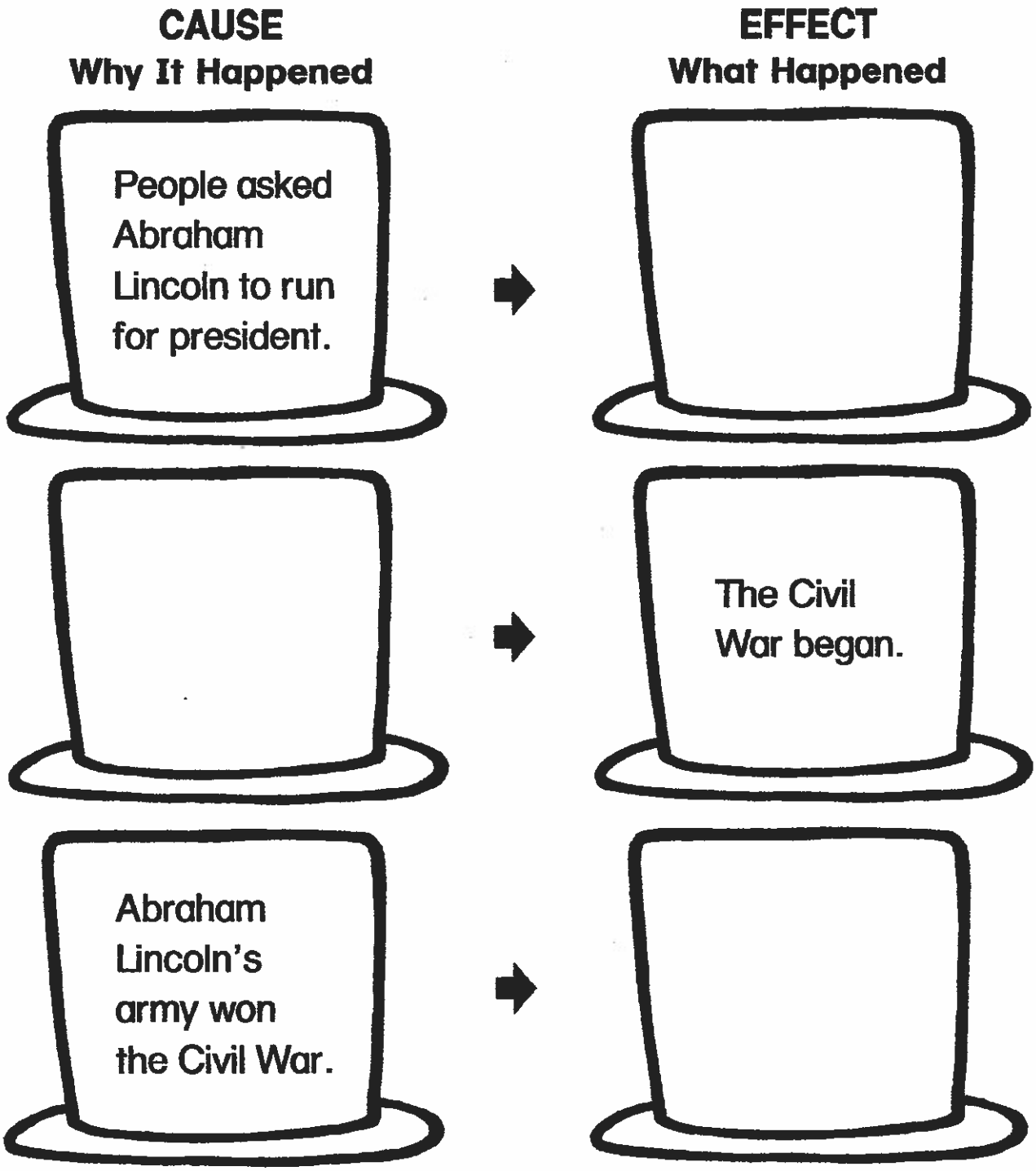




Name _____ Date _____

Cause and Effect

Read the causes and effects in the hats below. A cause is the reason something happened. An effect is the event that happened. Fill in the missing information.

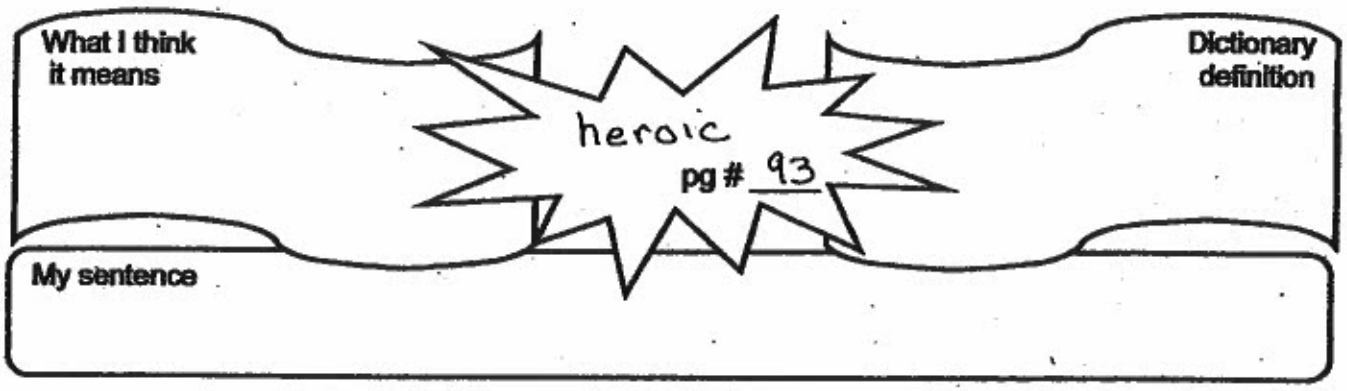


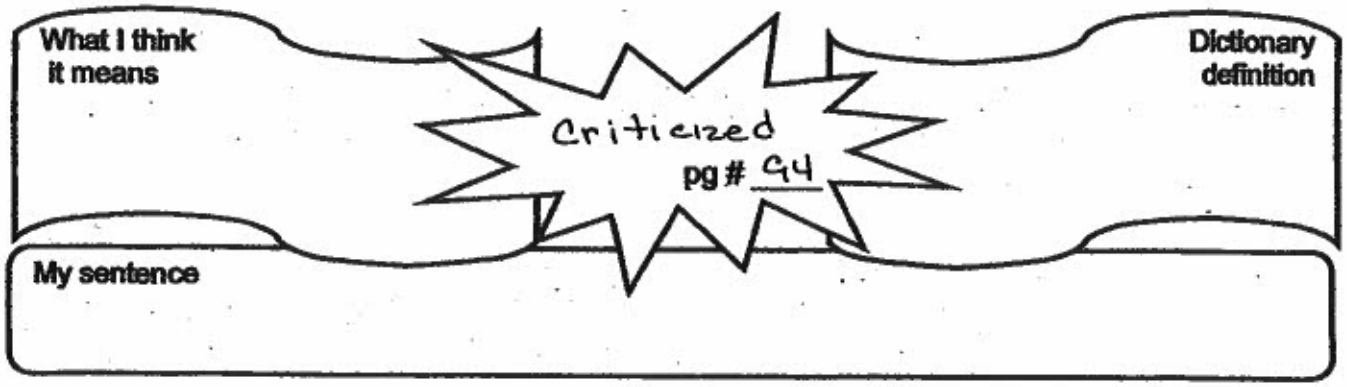
Name_____ Date_____

Interesting Words

Find an interesting word in your story or chapter. Write it in the middle shape along with the page number where you found it. Then fill in the rest of the shapes.

Title Chapter 10- Farewell to the President



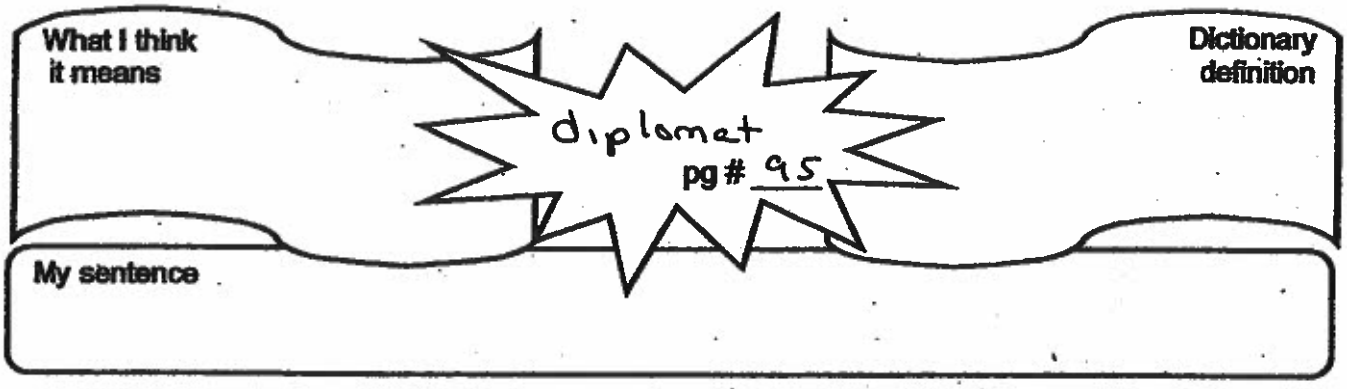


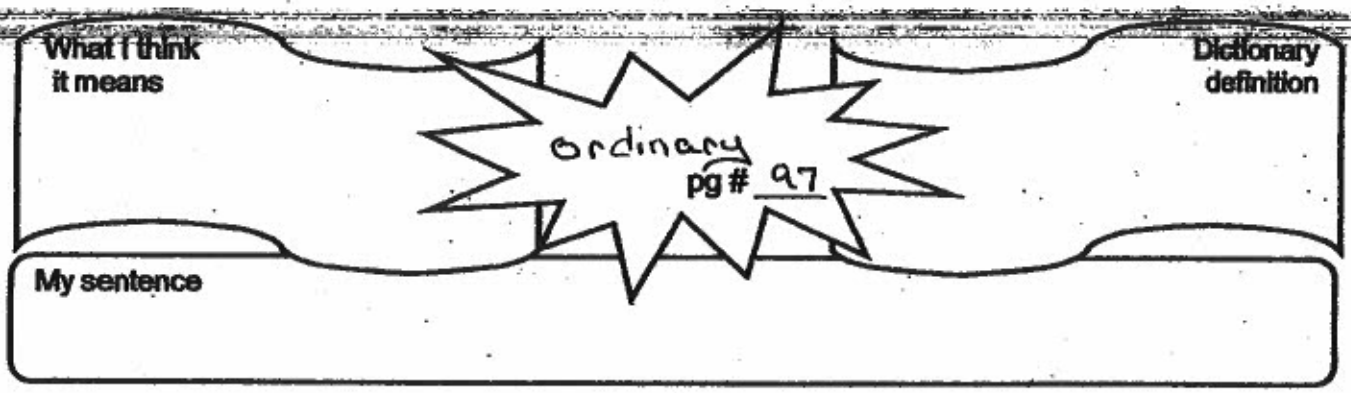
Name_____ Date_____

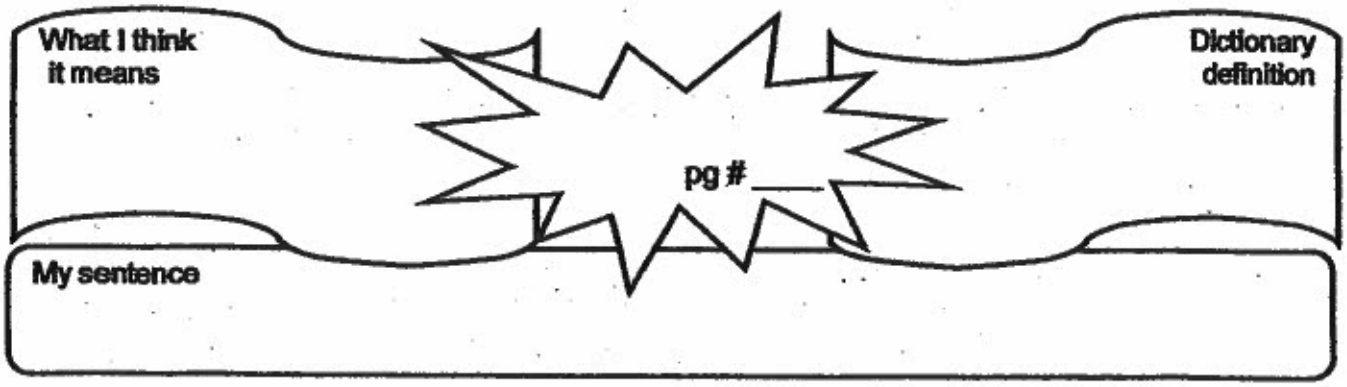
Interesting Words

Find an interesting word in your story or chapter. Write it in the middle shape along with the page number where you found it. Then fill in the rest of the shapes.

Title Chapter 10- Farewell to the President







Abraham Lincoln

1809-1865

"Four score and seven years ago..."

Abraham Lincoln was known to be kind. Make a list of acts of kindness you have performed recently:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Abraham Lincoln was born on a farm in Kentucky in 1809. The farm work was hard, his family was poor, and his mother died when he was just nine years old. But Abraham Lincoln grew tall and strong, and spent his free time reading, reading and reading!

Abraham Lincoln studied hard, and grew up to be a lawyer. He then became a Congressman, and in 1861 was elected President of the United States. He was President at a very difficult time for this country. Americans disagreed so strongly about slavery that they went to war with one another. Most people in the northern states thought African-Americans should be free. In the southern states, many people needed workers on their large plantations and did not want to pay them. Many Americans died fighting the Civil War.

With the Emancipation Proclamation, Abraham Lincoln announced that all Americans were free and equal under the law

ABRAHAM LINCOLN

(sing to the tune of "Yankee Doodle")

There was a man named Abraham
Lincoln, Honest Abe
He set about to free the slaves
In war between the states.

Abraham, born brave and strong
His portrait's on a penny
16th President was he
beloved by so many

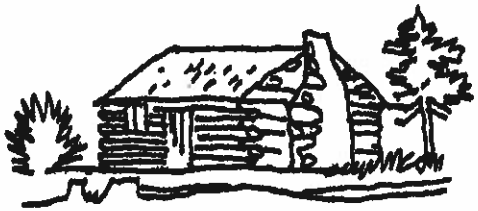
and that all slaves must be freed. Still, not all slave-owners freed their slaves. Many slaves were not told they had been made free by United States law until after the end of the Civil War.

The famous speech that Abraham Lincoln made to honor those who died in the Civil War is known as the Gettysburg Address.

Abraham Lincoln was shot while attending a play at Ford's Theatre in Washington, D.C. He was the sixteenth American President, and the first to be assassinated.

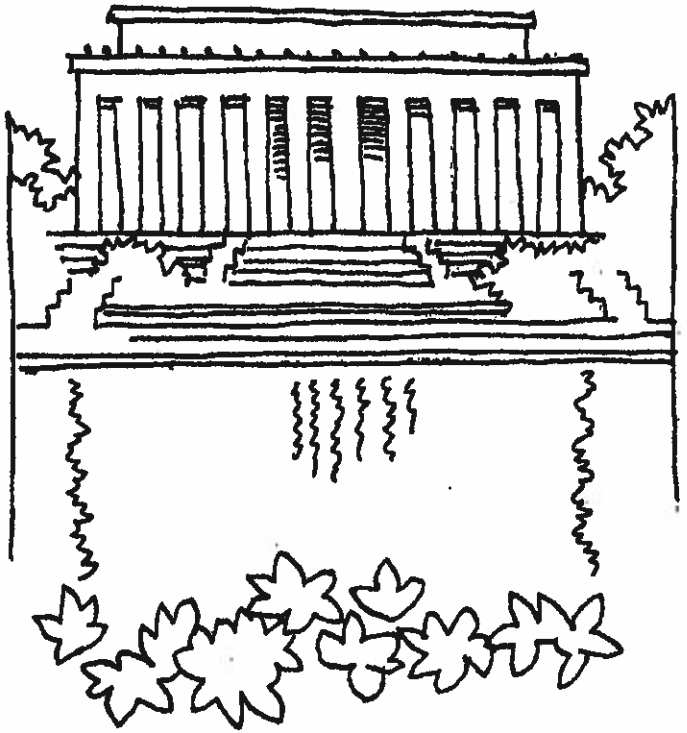
Did You Know...

- ☆ Lincoln was born in a log cabin.
- ☆ Lincoln grew to be 6 feet 4 inches tall.
- ☆ Lincoln's portrait is on the penny and the five-dollar bill.
- ☆ The Lincoln Memorial in Washington, D.C. honors President Lincoln.
- ☆ Lincoln was known for his tall black stovepipe hat.



Describe how your house is different from the log cabin that Lincoln lived in.

Color the Lincoln Memorial in Washington, DC.



Abraham Lincoln - Test Pg 1

1. Abraham Lincoln was _____ tall.
2. Abraham Lincoln was the _____ president.
3. The state Lincoln was born in was _____
4. Lincoln's family lived in a _____ cabin.
5. What was Lincoln's nickname?_____
6. How many years did Lincoln go to school?
   a. 4
   b. 2
   c. 1
7. How old was Lincoln when he left home
   a. 32
   b. 22
   c. 16

8. Do you think it would be difficult to live in a 1 room house with your family? Why or Why not?

9. Have you ever moved to a new place? How did you feel when you got to your new home (or school)?

10. How did he earn his nickname?

11. Write the definition for the term Trustworthy?

12. Why is it important to be trustworthy?

13. What is your favorite part of the book so far?

14. Name one thing you learned about Abraham Lincoln that surprised you?

15. Why did Lincoln not have support in the Southern states?

16. What events lead up to the Civil War? List 2 causes for the war.

17. What was the Emancipation Proclamation?

18. What did the 13th Amendment do?

Pg 3

19. What did Lincoln want to do with the South after the Civil War? Do you agree or disagree with Lincoln? Explain your answer.

20. Did Lincoln live to see the country come back together as one nation? Why or Why not?

21. Lincoln is known as one of the greatest Presidents in our nation's history. Do you agree with this statement? Explain your answer and give examples to support your opinion from the book.

22. In _____Lincoln ran for election for the Illinois State Legislature and lost.

23. Lincoln serve as a _____ before getting married.

24. Lincoln married a woman named _____.

25. According to the Missouri Compromise Missouri would come in as a_____ state. Maine would come in as a _____ State.

26. Popular Sovereignty means the government decided if a state would be a free state or a slave state.
    a. True
    b. False

27. Senator Douglas supported slavery.
    a. True
    b. False

28. Lincoln supported slavery.
    a. True
    b. False

29. The North and South agreed that slavery was bad.
    a. True
    b. False

30. The North wanted the south to keep their slaves.
    a. True
    b. False

31. The southern states were very happy that Lincoln was elected President.
    a. True
    b. False

RS 4

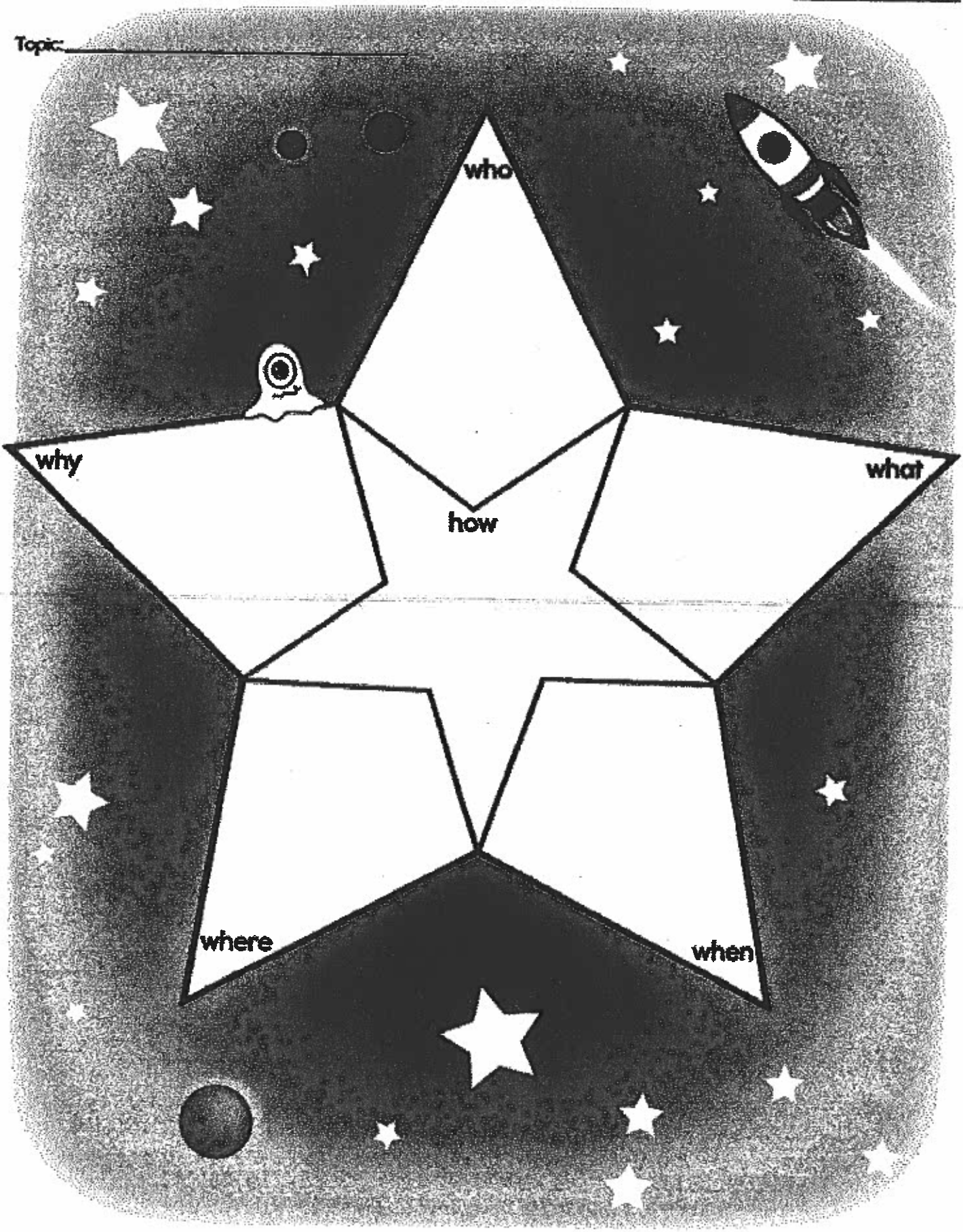
32. The Civil War started in what year?
    a. 2004
    b. 1776
    c. 1861

33. The Civil War lasted for how many years?
    a. 32
    b. 4
    c. 2

34. Which Amendment ended slavery?
    a. 5
    b. 12
    c. 13

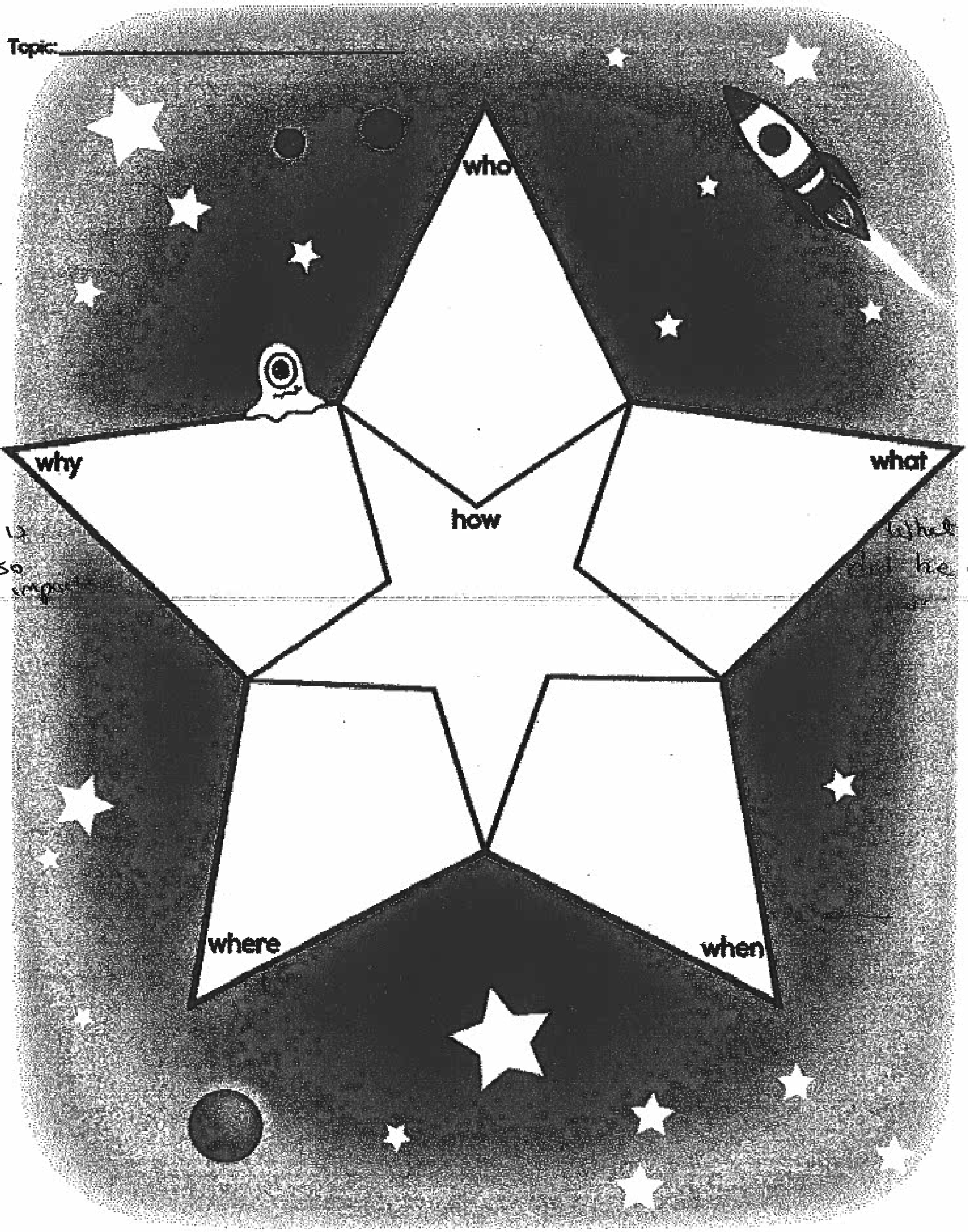
Name: _____ Date: _____

Topic: _____



Name: ______________________ Date: ____________

Topic: ______________________



Math

Week 1

5/18: Complete pgs. 28 & 29.

5/19: Complete pgs. 30-32.

5/20: Complete pgs. 33-35.

5/21: Complete pgs. 36 & 37.

5/22: Complete pgs. 38 & 39.

Week 2

5/25: Memorial Day! No classes!

5/26: Complete pgs. 40-42.

5/27: Complete pgs. 43-45.

5/28: Complete pgs. 46-48.

5/29: Complete pgs. 49-52.

Week 3

6/1: Complete pgs. 53-55.

6/2: Complete quiz on pgs. 56-57.

6/3: Complete pgs. 58 &59.

6/4: Review Multiplication facts. Look over Ch. Review and Extra Practice for additional practice.

6/5: Complete unit test on pgs. 60 &61.

Name _____ Date _____

Problem-Solving Skill: Multistep Problems

Some problems require more than one step to solve.

Solve.

1. Allison is organizing 18 tapes in 3 boxes. Each box holds 8 tapes. How many more tapes fit in the boxes?

   Think: How many tapes can the 3 boxes hold?

   _____

2. Sue has 8 CDs. Kim has 7 more CDs than Sue. How many CDs do Sue and Kim have in all?

   Think: How many CDs does Kim have?

   _____

3. Bill is organizing his 23 tapes on 5 shelves. Each shelf holds 6 tapes. How many more tapes will fit on the shelves?

   _____

4. Molly has 6 CDs. Jean has 5 more CDs than Molly. How many CDs do Molly and Jean have together?

   _____

Solve. Use these or other strategies.

Problem-Solving Strategies

- Act It Out
- Write a Number Sentence
- Find a Pattern

5. Two shelves hold 14 tapes. Three shelves hold 21 tapes. How many tapes will 4 shelves hold?

   _____

6. The product of 8 and a number is 56, What is 2 less than the number?

   _____

7. Three tapes last 6 hours. Four tapes last 8 hours. How long will 6 tapes last?

   _____

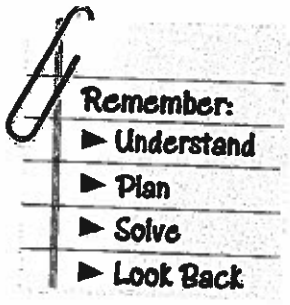
8. The sum of a number and 7 is 15. What is the product of the number and 4?

   _____

Pg 28

Name _____ Date _____

Problem-Solving Strategy: Choose a Strategy



If there is more than one strategy that can be used to solve a problem, you need to decide which one to use.

Solve.

1. Graham bought three juggling balls and some wrapping paper for a present. He spent $10 in all. If the juggling balls cost $3 each, how much did Graham pay for the wrapping paper?

   Think: Which step should you do first to solve the problem?

   _____

2. Frank's plant is 2 inches taller than Sandy's plant. Carrie's plant is 5 inches shorter than Sandy's. Frank's plant is 12 inches tall. How tall is Carrie's plant?

   Think: How tall is Carrie's plant?

   _____

3. Jake had a box of video games. He gave three games each to Troy, Cori, Ethan, and Jackie. After giving these away, he had 4 games left over. How many games did he have at the beginning?

   _____

4. Marie brought home 6 dried flowers. She gave two of the flowers to her dad and the remainder to her brother and sister. Her brother received more flowers than her sister. How many flowers did Marie give to her sister?

   _____

Solve. Use these or other strategies.

Problem-Solving Strategies

- Find a Pattern
- Act It Out
- Work Backward
- Guess and Check

5. Gavin, Hamish, and Kelly are having a chess tournament. If each person plays each other two times, how many games will there be?

   _____

6. Greg and Dan bought candles at the craft fair. Greg bought 3 more candles than Dan. The total number of candles bought was 13. How many candles did Greg buy?

LESSON 10

Problem-Solving Application: Use Operations

how to use operations to help you solve problems.

Maria is going with her family to the Summer Strawberry Festival. There will be 4 children and 3 adults going to the festival for one day. How much will the family spend on admission tickets?

Understand

What is the question?

How much will Maria's family spend on tickets to the festival?

What do you know?

- There are 4 children going to the festival.
- There are 3 adults going to the festival.

Plan

How can you solve the problem?

Find the cost of the children's tickets and the cost of the adults' tickets. Then find the cost of all the tickets.

Solve

Find the cost of the children's tickets and the adults' tickets.

Cost of the children's tickets	Cost of the adults' tickets
$4 \times \$6 = \$24$	$3 \times \$9 = \$27$

Find the cost of all the tickets.

$\$24 + \$27 = \$51$

The family will spend $51 on admission tickets.

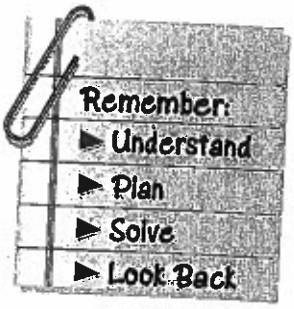
Look Back

Look back at the question.

How could you solve the problem another way?

Name _____ Date _____

Problem-Solving Application: Use Operations



A combination of operations can be used to solve problems.

Use the table to solve each problem.

Charity Cake Sale

	Price for 1 Slice	Price for Whole Cake
Carrot Cake	$2	$9
Coffee Cake	$1	$8
Sponge Cake	$3	$10

1. Ms. Taylor bought 2 whole carrot cakes and a slice of sponge cake. How much did she spend?

Think: How much does 1 whole carrot cake cost?

_____

2. Ted bought 3 slices of sponge cake. Rosie bought a whole coffee cake. Who spent more money?

Think: How much did each spend?

_____

Solve.

Problem-Solving Strategies

- Write a Number Sentence
- Work Backward
- Draw a Picture

3. After one hour, four whole carrot cakes, two whole coffee cakes, and one whole sponge cake had been sold. How much money was made?

_____

4. The cakes are in a row. The carrot cake is to the left of the sponge cake. The coffee cake is at the far right. Write the order of the cakes from left to right.

_____

5. Debbie bought a slice of carrot cake. She paid with quarters. How many quarters did she use?

_____

6. Sarah spent $32 on coffee cakes. How many whole coffee cakes did she buy?

_____

PS 28c

PS

Skill: Multiplying by 6

Name _____

36 red

42 brown

48 yellow

54 green

60 orange

Ps 29

Name _____ Date _____

Problem-Solving Skill: Multistep Problems

Sometimes you must do two or more steps to solve a problem.

Problem:	Decide what to do.	Do each step in order.
Wendy has 3 shelves. She put 13 videos on her shelves. Each shelf holds 8 videos. How many more videos can she fit on her shelves? **Think:** How many videos can the shelves hold?	You know how many videos Wendy put on the shelves. You don't know the total number of videos the shelves will hold. So, first find how many videos the shelves can hold. Then you can find how many more videos fit on her shelves	**Step 1** How many videos fit on the shelves? 3 shelves × 8 videos = 24 videos **Step 2** Subtract to find how many more videos can fit on the shelves. 24 − 13 = 11

Solve.

1. Andy is organizing 11 tapes in 2 boxes. Each box holds 8 tapes. How many more tapes can fit in the boxes?

   Think: How many tapes can the boxes hold?

   _____

2. Megan has 25 videos and 4 boxes. Each box holds 8 videos. How many more videos can fit in the boxes?

   Think: How many videos can the boxes hold?

   _____

3. Sara has 9 CDs. Jamie has 6 more CDs than Sara. How many CDs do they have together?

   Think: How many CDs does Jamie have?

   _____

4. Ben has 2 CDs. His friend Matt has twice as many CDs. How many CDs do Ben and Matt have in all?

   Think: How many CDs does Matt have?

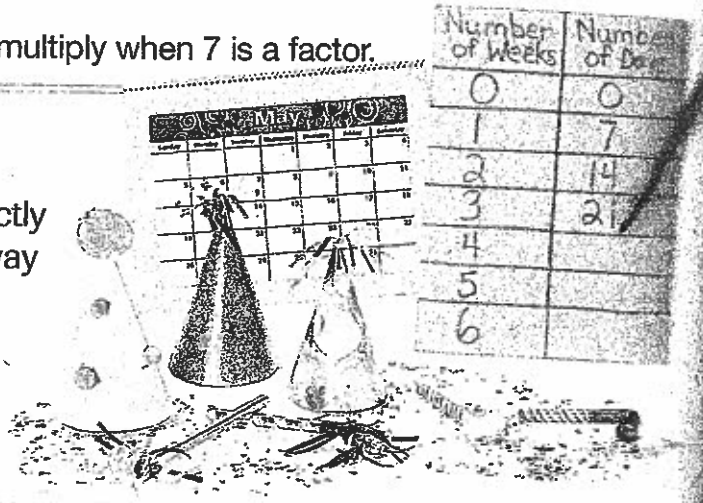
   _____

30

LESSON 5

Multiply With 7

You will learn different ways to multiply when 7 is a factor.



Learn About It

Suppose your class is having a party exactly 6 weeks from today. How many days away is the party?

Multiply. $6 \times 7 = \square$ or $\begin{array}{r} 7 \\ \times\ 6 \\ \hline \square \end{array}$

Different Ways to Multiply

You can use repeated addition.

$7 + 7 + 7 + 7 + 7 + 7 = 42$

You can draw an array.

6 rows of 7 = 42

You can remember a multiplication fact.

$6 \times 7 = \square$

$6 \times 7 = 42$

Think: 6 groups of 7 = 42.

Solution: The party is 42 days away.

Explain Your Thinking

▶ Why is it useful to know that you can multiply factors in any order?

Guided Practice

Multiply.

1. $\begin{array}{r} 7 \\ \times\ 6 \\ \hline \end{array}$ **2.** $\begin{array}{r} 5 \\ \times\ 7 \\ \hline \end{array}$ **3.** $\begin{array}{r} 7 \\ \times\ 2 \\ \hline \end{array}$ **4.** $\begin{array}{r} 10 \\ \times\ 7 \\ \hline \end{array}$

- What fact can I use to find the product?

5. 8×7 **6.** 7×3 **7.** 4×7 **8.** 7×7

9. 1×7 **10.** 7×9 **11.** 7×0 **12.** 10×7

...endent Practice

...ch product.

13. 7 × 2	14. 7 × 5	15. 7 × 8	16. 4 × 7	17. 7 × 7	18. 3 × 7
19. 0 × 7	20. 7 × 9	21. 10 × 7	22. 7 × 1	23. 7 × 6	24. 5 × 7
25. 7 × 2	26. 9 × 7	27. 8 × 7	28. 0 × 7	29. 7 × 7	
30. 3 × 7	31. 7 × 6	32. 7 × 1	33. 5 × 7	34. 10 × 7	
35. 7 × 4	36. 5 × 8	37. 6 × 3	38. 9 × 6	39. 0 × 8	

...bra • Expressions Compare. Write >, <, or = for each ●.

40. 8 × 7 ● 5 × 7 41. 7 × 7 ● 6 × 6 42. 0 × 7 ● 1 × 7

43. 7 × 2 ● 2 × 7 44. 8 × 7 ● 6 × 9 45. 7 × 3 ● 7 × 4

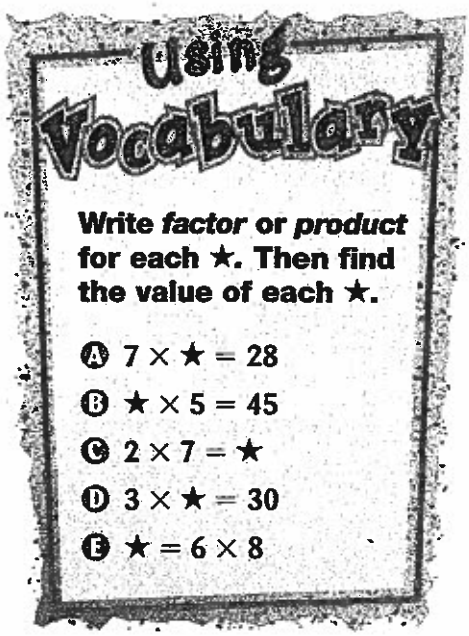
...blem Solving • Reasoning

46. Except for leap years, there are exactly 4 weeks in February. How many days is that?

47. **Estimate** Jessica's birthday is in 32 days. Julia's birthday is 41 days after that. About how many days away is Julia's birthday?

48. **Money** Terell spent $15 on 2 animal calendars. The dog calendar cost $3 more than the cat calendar. How much did the cat calendar cost?

49. **Logical Thinking** Tim is 7 years old. Lisa is four times as old as Tim. If Lisa is half as old as Uncle Ed, how old is Uncle Ed?



...ixed Review • Test Prep

...dd or subtract. *(pages 108–109, 128–130)*

50. 715 + 268 51. 864 − 309 52. 438 − 150 53. 309 + 491

54. Which shows eighteen thousand, fifty-six in standard form? *(pages 32–33)*

A 1,856 B 18,056 C 18,506 D 18,560

...tra Practice See Set C on page 285

Level 3

Name_____ Date _____

BASIC FACTS

Multiplying by 8

Multiply.

1. $8 \times 7 =$ _____
2. $8 \times 5 =$ _____
3. $8 \times 3 =$ _____
4. $1 \times 8 =$ _____
5. $4 \times 8 =$ _____
6. $8 \times 2 =$ _____
7. $8 \times 4 =$ _____
8. $8 \times 1 =$ _____
9. $6 \times 8 =$ _____

Complete the table with the facts you have earned. One column has been completed for you.

	x	2	3	4	5	6	7	8	9
10.	2			8					
11.	3			12					
12.	4			16					
13.	5			20					
14.	6			24					
15.	7			28					
16	8			32					
17.	9			36					

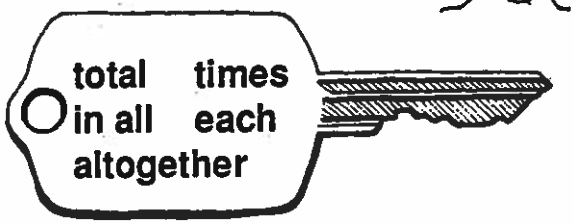
Compare. Write <, >, or =.

18. 2×8 ___ 3×5
19. 3×8 ___ 4×8
20. 8×4 ___ 5×9
21. 4×6 ___ 3×8
22. 2×8 ___ 3×5
23. 1×8 ___ $1 + 8$

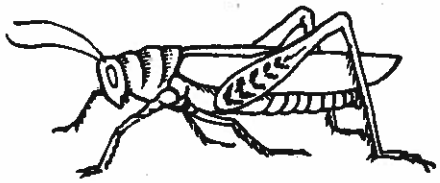
Name _____ Skill: Multiplication key words, Multiplication facts

Insect Watching

These key words often mean that the answer can be found by multiplying. Use them to help you solve multiplication problems. Some multiplication key words are the same as addition key words.



Underline the key words. Write the number sentence and the answer.



1. Trevor saw 3 ladybugs. Each ladybug had 5 spots. How many ladybug spots did Trevor see in all? _____ Trevor saw _____ ladybug spots.	2. Betty caught 6 fireflies. Danielle caught 4 times as many fireflies. How many fireflies did Danielle catch? _____ Danielle caught _____ fireflies.
3. Chandra saw 2 butterflies on each of the 9 daisies in her garden. How many butterflies did Chandra see? _____ Chandra saw _____ butterflies.	4. Manny watched 6 ants working. Each of the ants had 6 legs. How many ant legs did Manny count altogether? _____ Many counted _____ ant legs.
5. Rose counted 7 dragonflies at the lake. She counted 5 times as many mosquitoes. How many mosquitoes did Rose count? _____ Rose counted _____ mosquitoes.	6. Lee found 7 twigs. There were 6 moth eggs on every twig. What was the total number of moth eggs Lee found? _____ Lee found _____ moth eggs.

Brainwork! Write a multiplication word problem about grasshoppers. Use multiplication key words. Have a friend solve it.

R34

Name _____ Date _____

Multiply With 7

Example

$$\begin{array}{r} 4 \\ \times\ 7 \\ \hline 28 \end{array}$$

Find each product.

1. $\begin{array}{r} 7 \\ \times\ 3 \\ \hline \end{array}$
2. $\begin{array}{r} 7 \\ \times\ 6 \\ \hline \end{array}$
3. $\begin{array}{r} 7 \\ \times\ 1 \\ \hline \end{array}$
4. $\begin{array}{r} 5 \\ \times\ 7 \\ \hline \end{array}$
5. $\begin{array}{r} 8 \\ \times\ 7 \\ \hline \end{array}$
6. $\begin{array}{r} 7 \\ \times\ 2 \\ \hline \end{array}$
7. $\begin{array}{r} 7 \\ \times\ 0 \\ \hline \end{array}$
8. $\begin{array}{r} 7 \\ \times\ 7 \\ \hline \end{array}$
9. $\begin{array}{r} 7 \\ \times\ 9 \\ \hline \end{array}$
10. $\begin{array}{r} 4 \\ \times\ 7 \\ \hline \end{array}$
11. $\begin{array}{r} 6 \\ \times\ 7 \\ \hline \end{array}$
12. $\begin{array}{r} 7 \\ \times\ 3 \\ \hline \end{array}$
13. $\begin{array}{r} 7 \\ \times\ 6 \\ \hline \end{array}$
14. $\begin{array}{r} 0 \\ \times\ 7 \\ \hline \end{array}$
15. $\begin{array}{r} 5 \\ \times\ 7 \\ \hline \end{array}$

16. $8 \times 7 =$ _____
17. $2 \times 7 =$ _____
18. $7 \times 9 =$ _____
19. $7 \times 7 =$ _____

Problem Solving • Reasoning

20. Tom's birthday is 4 weeks away. How many days away is Tom's birthday?

_____

21. Sue's school project is due in 5 weeks. How many days does Sue have to do it?

_____

Basic Multiplication Word Problems

Single-Digit Factors

Name: _____ **Date:** _____

(1) Erin's dresser has 6 drawers. Each drawer contains 4 shirts. How many shirts are in the dresser?

Answer: _____

(2) The shoe rack at the front door has 4 shelves. Each shelf can hold 7 pairs of shoes. How many pairs of shoes can the rack hold altogether?

Answer: _____

(3) Brian wants to give each of his friends 8 marbles. He has 6 friends. How many marbles will he be giving to his friends?

Answer: _____

(4) The parking lot has 5 rows of spaces. Each row can hold 4 cars. How many cars can be parked in the lot?

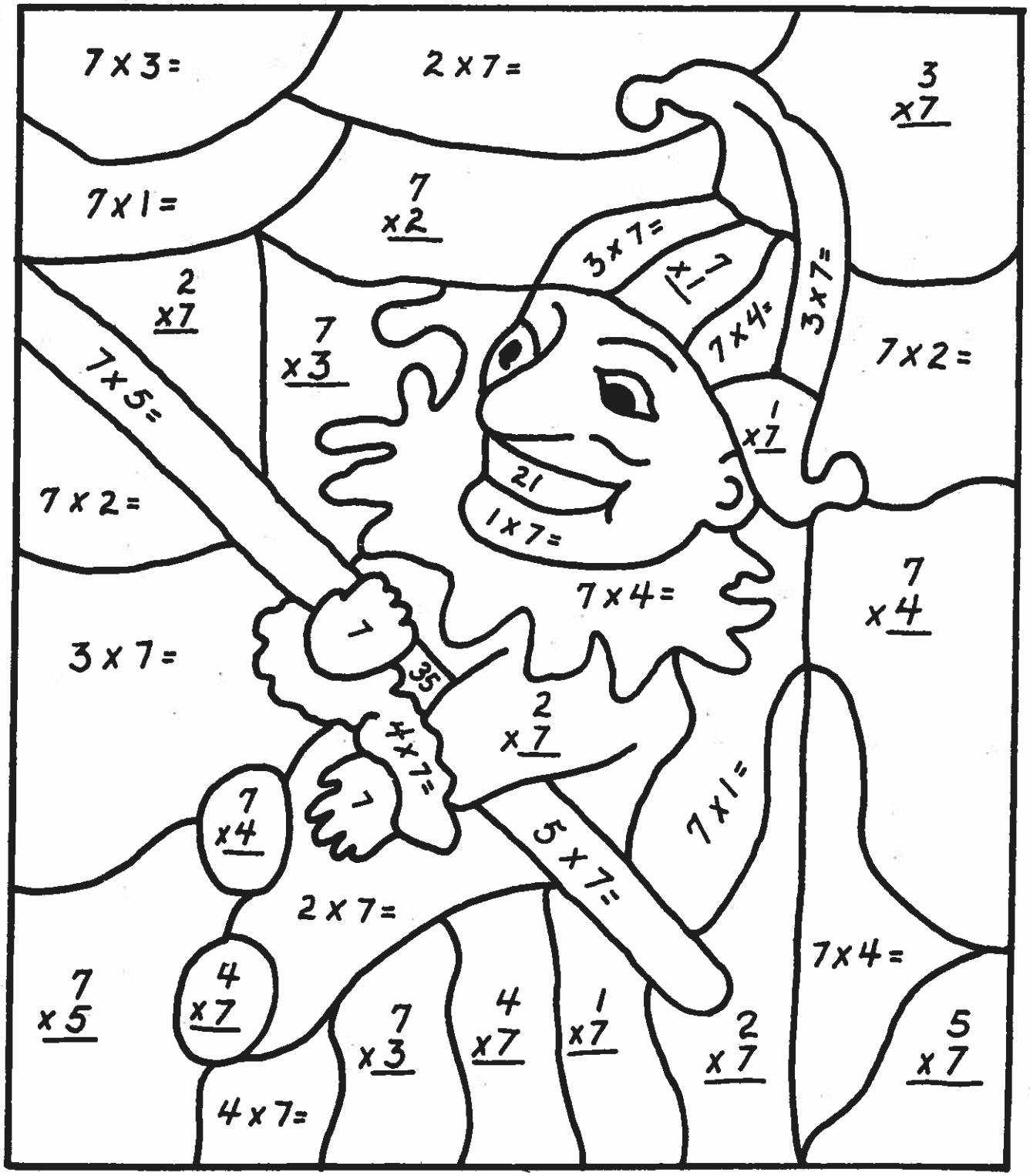
Answer: _____

Pg 36

Name _____

Skill: Multiplying by 7

7	14	21	28	35
yellow	blue	red	orange	black



LESSON 6

Multiply With 9

You will learn how to use patterns to multiply when 9 is a factor.

Learn About It

This table shows most of the 9s facts. The next fact on the table would be 8 × 9. What is 8 × 9?

Multiply. **8 × 9 =** ☐ or

$$\begin{array}{r} 9 \\ \times\ 8 \\ \hline \square \end{array}$$

Fact	Product
1 × 9	9
2 × 9	18
3 × 9	27
4 × 9	36
5 × 9	45
6 × 9	54
7 × 9	63
8 × 9	
9 × 9	
10 × 9	

You can use patterns to find 9s facts.

- Look at each row in the table. Notice that the tens digit of the product is always 1 less than the underlined factor.

$$7 \times 9 = 63$$

- Look at each product in the table. Notice that the sum of the digits is always 9.

$$7 \times 9 = 63 \rightarrow 6 + 3 = 9$$

Now use these patterns to find 8 × 9.

$8 \times 9 = \square$ — 8 − 1 = 7

Think: The tens digit will be 1 less than the factor you are multiplying with 9.

$8 \times 9 = \square\square$ — 7 + 2 = 9

Think: The sum of the digits in the product will be 9.

Solution: 8 × 9 = 72

Explain Your Thinking

▶ How can you use patterns to help you find 9 × 9?

Guided Practice

Multiply.

1. $\begin{array}{r} 9 \\ \times\ 3 \end{array}$ **2.** $\begin{array}{r} 7 \\ \times\ 9 \end{array}$ **3.** $\begin{array}{r} 9 \\ \times\ 2 \end{array}$ **4.** $\begin{array}{r} 5 \\ \times\ 9 \end{array}$

5. 4 × 9 **6.** 1 × 9 **7.** 6 × 9 **8.** 10 × 9

Ask Yourself

- What fact can I use to find the product?
- How can I use patterns to find the product?

Independent Practice

Multiply.

9 × 2	**10.** 9 × 6	**11.** 4 × 9	**12.** 9 × 0	**13.** 1 × 9	**14.** 9 × 5
3 × 9	**16.** 9 × 8	**17.** 9 × 7	**18.** 10 × 9	**19.** 9 × 9	**20.** 6 × 9
4 4 × 9	**22.** 10 × 9	**23.** 9 × 3	**24.** 9 × 7	**25.** 5 × 9	
6 6 × 9	**27.** 9 × 1	**28.** 8 × 9	**29.** 9 × 0	**30.** 2 × 9	
9 9 × 9	**32.** 3 × 9	**33.** 9 × 5	**34.** 9 × 10	**35.** 9 × 4	
7 7 × 4	**37.** 3 × 8	**38.** 5 × 6	**39.** 2 × 8	**40.** 1 × 7	

Problem Solving • Reasoning

Data **Use the sign on the right for Problems 41–44.**

There are 9 planets in our solar system. What would the total cost be if you bought a small poster of each one?

Estimate About how much more does an Earth globe cost than a solar system kit?

Compare Glow-in-the-dark star sets normally cost $12. How much money do you save if you buy 4 sets on sale?

Write About It Mrs. Gomez has $37 to spend on science-fair prizes. She plans to spend all of the money on posters. How many prizes will she have? Explain how you found your answer.

Mixed Review • Test Prep

Name the value of the underlined digit. *(pages 18–19, 32–33, 34–35)*

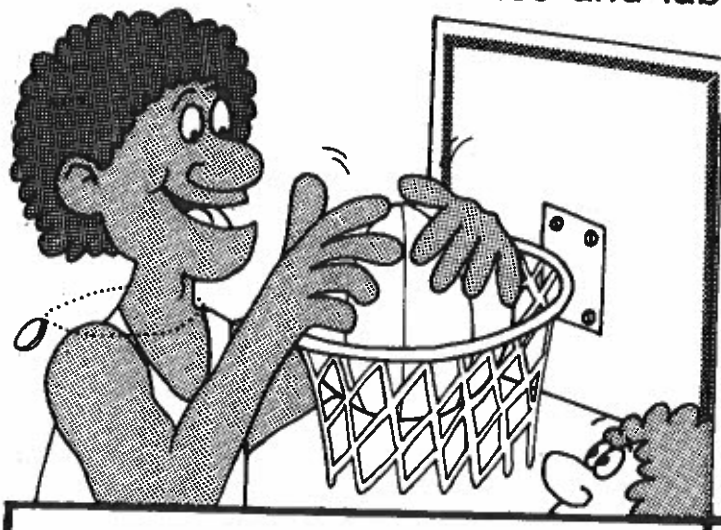
45. 4,039 **46.** 71,624 **47.** 53,265 **48.** 316,902 **49.** 824,164

How many minutes are there between 10:15 A.M. and 11:30 A.M.? *(pages 78–79)*

A 135 min **B** 105 min **C** 75 min **D** 15 min

Name _____ Skill: Multiplication

Write the number sentence and label your answer.



1. A football team gets 6 points for a touchdown. How many points would 8 touchdowns be?

_____

It would be _____ _____ .

2. Baseball games have 9 innings. If each inning has 3 outs, how many outs are there in a game?

_____

There are _____ _____ .

3. If you swam 8 laps a day for 7 days, how many laps would you swim altogether?

_____

That would be _____ _____ .

4. There are 4 people at each ping pong table. If there are 9 tables, how many people are playing?

_____

There are _____ _____ .

5. Dad jogs 6 miles a day. How many miles would he jog in 4 days?

_____

Dad would jog _____ _____ .

6. There are 5 players on a basketball team. If they each score 9 points, what would the team's score be?

_____

The score would be _____ .

7. In tennis, you play 6 games each set. If you play 7 sets, how many games would you play?

_____

You would play _____ _____ .

P340

Name _____ Date _____

Multiply With 7

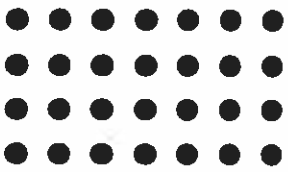
There are many ways to multiply 4 × 7.

Different Ways to Multiply

You can use repeated addition.

7 + 7 + 7 + 7 = 28

You can draw an array.



4 rows of 7 = 28

You can remember a multiplication fact.

4 × 7 = ■

4 × 7 = 28

Think: 4 groups of 7 = 28

Find each product.

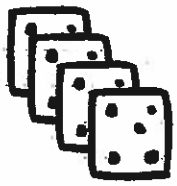
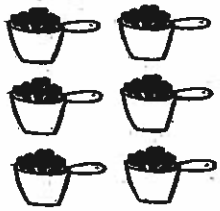
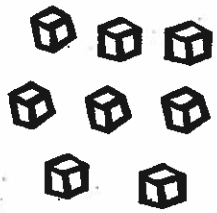
1. 2 × 7	**2.** 5 × 7	**3.** 3 × 7	**4.** 6 × 7	**5.** 8 × 7
6. 7 × 4	**7.** 7 × 0	**8.** 7 × 1	**9.** 7 × 9	**10.** 7 × 7

Name _____

Problem Solving 6-4

7 and 8 as Factors

Health Our bodies need calcium for strong teeth and bones. The Recommended Daily Allowance (RDA) tells how much calcium our bodies need in one day. Each of the items below would give a student the RDA of calcium.

Foods that Provide the Recommended Daily Allowance of Calcium			
4 slices cheese	3 cups spinach	6 cups broccoli	8 pieces tofu
			

1. If Patrick ate 4 slices of cheese per day, how many slices would he eat in one week? _____

2. If you ate enough broccoli each day to get the RDA of calcium, how many cups would you eat in eight days? _____

3. If you ate enough tofu each day to get the RDA of calcium, how many pieces would you eat in one week? in 5 days? _____

Mia is decorating sweatshirts for a craft fair. She sews 8 buttons and 7 fabric squares on each sweatshirt.

4. How many buttons and fabric squares will Mia sew on 6 sweatshirts?

_____

5. How many buttons and fabric squares will Mia sew on 9 sweatshirts?

_____

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LESSON 7

Problem-Solving Strategy: Choose a Strategy

You will learn to choose a strategy to solve a problem.

If there is more than one strategy that can be used to solve a problem, you need to decide which one to use.

Erica collected shells at the beach. She gave all the shells to 3 friends. If she gave 4 shells to each friend, how many shells did Erica collect at the beach?

Understand

What is the question?

How many shells did Erica collect at the beach?

What do you know?

She gave 4 shells to each of 3 friends.

Plan

How can you find the answer?

You can use models to act it out or you can write a number sentence.

Solve

Use Models to Act It Out

- Use counters to stand for the shells. Ask 3 classmates to be the friends.
- Give 4 counters to each friend.
- Count all of the counters that your friends have.

Write a Number Sentence

Find the number of shells Erica gave her friends.

$3 \times 4 = n$

The letter n is another way to write ▢. It stands for a missing number.

$$\underset{\substack{\uparrow \\ \text{number of friends}}}{3} \times \underset{\substack{\uparrow \\ \text{shells given to each friend}}}{4} = \underset{\substack{\uparrow \\ n = 12}}{12}$$

Erica collected 12 shells from the beach.

Look Back

Look back at the problem.

What is another number sentence you could use?

Pg 43

ided Practice

re.

Remember:
- Understand
- Plan
- Solve
- Look Back

1. Ben bought 5 starfish and a display case. He spent $17 in all. If the starfish cost $2 each, how much did Ben pay for the display case?

   Think: Which step should you do first to solve the problem?

2. Min has 3 more shells than Leah. Leah has 5 more shells than Kim. Kim has 10 shells. How many shells does Min have?

   Think: For which girl do you know the number of shells?

oose a Strategy

re. Use these or other strategies.

Problem-Solving Strategies

- Find a Pattern
- Act It Out
- Work Backward
- Guess and Check

3. Karyn bought some painted shells and rocks at a craft fair for 10¢ each. She bought 3 rocks. She spent 90¢ in all. How many shells did Karyn buy?

4. Roberto has 3 identical shells and 4 rocks. He wants to paint each shell yellow or green. What are all the ways Roberto could paint the shells?

5. Sue has a poster of shells. Each row shows 5 shells. Shells in the first row are numbered 1 to 5, those in the second row, 6 to 10, and so on. What number is the last shell in the sixth row likely to be?

6. Christopher had 17 sand dollars in his collection. Then he bought 2 sets of sand dollars. There are 5 sand dollars in each set. How many sand dollars does Christopher have now?

7. Todd and Matt collect beach glass. Todd has 5 more pieces than Matt. If they multiply the number of pieces each has, the product is 36. How many pieces of beach glass does Todd have?

8. **Lisa arranged 30 shells in the pattern shown below. How many small shells does Lisa have?**

Name _____

Using 7 and 8 as Factors

Find each product.

1. 7 × 3	**2.** 8 × 2	**3.** 6 × 7	**4.** 8 × 4	**5.** 3 × 8
6. 8 × 7	**7.** 8 × 8	**8.** 5 × 7	**9.** 6 × 8	**10.** 7 × 7

11. $8 \times 0 =$ _____ **12.** $7 \times 4 =$ _____ **13.** $5 \times 8 =$ _____

14. _____ $= 8 \times 4$ **15.** _____ $= 7 \times 9$ **16.** _____ $= 2 \times 7$

Solve.

17. Patti made 4 necklaces. She used 8 beads for each. How many beads did Patti use?

_____

18. Ken rode his bike 2 miles every day. How far did he ride in 7 days?

_____

Review and Remember

Add or subtract.

1. 1,845 + 3,569	**2.** 3,769 + 2,483	**3.** 2,764 + 4,453	**4.** 3,107 + 4,200
5. 5,312 + 2,418	**6.** 1,810 + 6,204	**7.** 600 − 229	**8.** 800 − 347
9. 203 − 117	**10.** 408 − 169	**11.** 300 − 148	**12.** 700 − 613

PJ45

Name _____ Review—multiplying by 2–9s

The Case of the Missing Factors

Complete the multiplication chart.

x	0	1	2	3	4	5	6	7	8	9
0				0						
1										
2		2								
3										
4										
5										
6										
7								49		
8										
9										

Using the chart, help Detective Dan find each missing factor.

A. 4 x ____ = 12 7 x ____ = 14 3 x ____ = 27

B. 5 x ____ = 30 6 x ____ = 36 8 x ____ = 64

C. ____ x 4 = 36 ____ x 3 = 24 ____ x 9 = 18

D. ____ x 8 = 56 ____ x 9 = 81 ____ x 1 = 6

On another piece of paper, write five missing factor number sentences. Have a friend solve them. Check your friend's work.

46

Shining Brightly

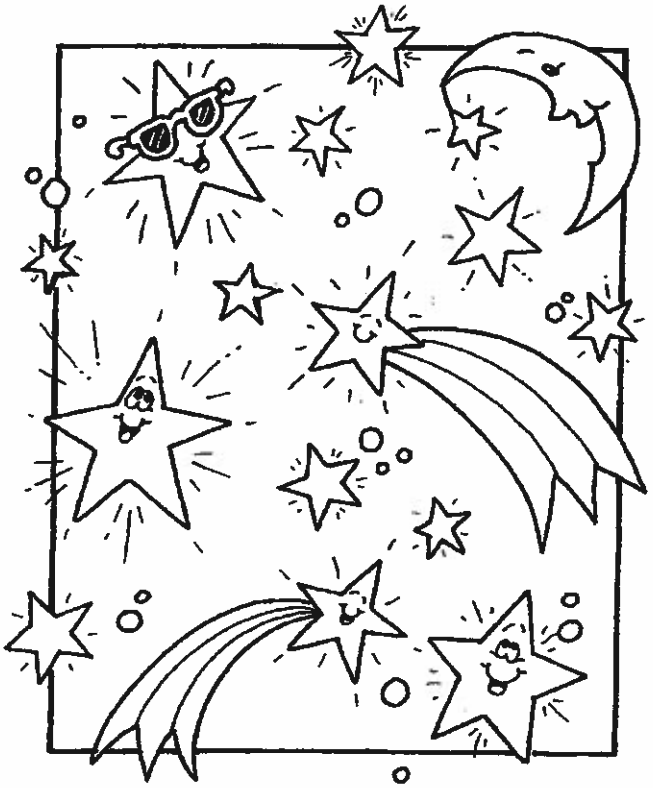
Multiply. Then write the letter of the problem that matches each product below to learn the names of two of the brightest stars.

B. 3 x 4	**R.** 1 x 4	**A.** 2 x 4	**F.** 8 x 4	**P.** 7 x 4
S. 6 x 5	**U.** 3 x 5	**E.** 1 x 5	**U.** 4 x 4	**I.** 5 x 5
G. 0 x 5	**S.** 2 x 5			

O. 4 x 5 = _____ **D.** 9 x 5 = _____

I. 9 x 4 = _____ **N.** 6 x 4 = _____

S. 7 x 5 = _____ **C.** 5 x 8 = _____



Two of the brightest stars are

___	___	___	___	___	___	and	___	___	___	___	___	___	___ .
10	25	4	36	16	30		40	8	24	20	28	15	35

Name _____ Date _____

Multiply With 9

Example

$$\begin{array}{r} 6 \\ \times\ 9 \\ \hline 54 \end{array}$$

Find each product.

1. $\begin{array}{r} 4 \\ \times\ 9 \\ \hline \end{array}$ **2.** $\begin{array}{r} 2 \\ \times\ 9 \\ \hline \end{array}$ **3.** $\begin{array}{r} 7 \\ \times\ 9 \\ \hline \end{array}$

4. $\begin{array}{r} 9 \\ \times\ 3 \\ \hline \end{array}$ **5.** $\begin{array}{r} 9 \\ \times\ 8 \\ \hline \end{array}$ **6.** $\begin{array}{r} 6 \\ \times\ 9 \\ \hline \end{array}$ **7.** $\begin{array}{r} 9 \\ \times\ 9 \\ \hline \end{array}$

8. $\begin{array}{r} 9 \\ \times\ 1 \\ \hline \end{array}$ **9.** $\begin{array}{r} 9 \\ \times\ 0 \\ \hline \end{array}$ **10.** $\begin{array}{r} 5 \\ \times\ 9 \\ \hline \end{array}$ **11.** $\begin{array}{r} 8 \\ \times\ 9 \\ \hline \end{array}$

12. 9×2 _____ **13.** 9×5 _____ **14.** 3×9 _____ **15.** 0×9 _____

16. 9×1 _____ **17.** 9×9 _____ **18.** 7×9 _____ **19.** 4×9 _____

Problem Solving • Reasoning

20. There are 9 players on a baseball team. How many players are there on 8 teams?

_____

21. In a baseball game each team gets to bat 9 times. How many times does a team get to bat in 5 games?

_____

LESSON 8

Hands-On Activity

Patterns on a Multiplication Table

You will learn how to find patterns by using a multiplication table.

Vocabulary

multiple
square number

Learn About It

You can use a multiplication table to see different patterns.

Materials

grid paper or Teaching Tool 5

Step 1 Copy and complete the multiplication table on the right. Use patterns to fill in the products for 11 and 12.

column ↓

row →

0	0	0	0	0	0	0	0	0	0	0		
0	1	2	3	4	5	6	7	8	9	10		
0	2	4	6	8	10	12	14	16	18	20		
0	3	6	9	12	15	18	21	24	27	30		
0	4	8	12	16	20	24	28	32	36	40		
0	5	10	15	20	25	30	35	40	45	50		
0	6	12	18	24	30	36	42	48	54	60		
0	7	14	21	28	35	42	49	56	63	70		
0	8	16	24	32	40	48	56	64	72	80		
0	9	18	27	36	45	54	63	72	81	90		
0	10	20	30	40	50	60	70	80	90	100		
0												
0												

Step 2 Look at the row for 2. All of the numbers in this row are multiples of 2.

A **multiple** of 2 is any product that has 2 as a factor.

0, 2, 4, 6, 8, 10, and so on are multiples of 2.

- Which column shows the same multiples of 2?

Step 3 Make a list of the multiples of 2 shown in the row for 2. Make a list of the multiples of 4 shown in the row for 4. Compare the numbers in both lists. What pattern can you find?

Step 4 Repeat Step 3 to find multiples of 3 and 6. Repeat Step 3 again to find multiples of 5 and 10.

- What patterns do you see?
- Can you find other pairs of numbers in which this same pattern happens?

Step 5 Look at the shaded products in the table shown at the right. Then look at the factors shown in the purple boxes.

- What can you say about the factors that make each of these products?

When the two factors of a product are the same, the product is called a **square number**.

0, 1, 4, 9, 16, and so on are square numbers.

- Shade all the square numbers you see on your multiplication table.
- How could you find some other square numbers that are not in the table?

×	0	1	2	3	4	5
0	0	0	0	0	0	0
1	0	1	2	3	4	5
2	0	2	4	6	8	10
3	0	3	6	9	12	15
4	0	4	8	12	16	20
5	0	5	10	15	20	25

Try It Out

Use your completed multiplication table to help you answer each question.

1. What multiples of 7 are shown in the table?
2. Are multiples of 5 always even numbers? Explain why or why not.
3. Is 8 a square number? Explain why or why not.
4. What do you notice about the multiples of 11?

PJ 80

Write *true* or *false* for each statement.
Give an example to support each answer.

5. Any multiple of 4 is also a multiple of 2.

6. Any multiple of 2 is also a multiple of 4.

7. All square numbers are even numbers.

8. If a number is odd, all of its multiples will be odd.

9. If a number is even, all of its multiples will be even.

Copy and complete each multiplication sentence.

10. $4 \times \square = 12$

11. $\square \times 8 = 56$

12. $5 \times 9 = \square$

13. $\square \times 1 = 10$

14. $12 \times \square = 36$

15. $\square \times \square = \square$

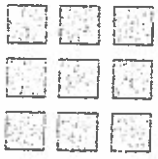
16. $3 \times \square = 9$

17. $8 \times 8 = \square$

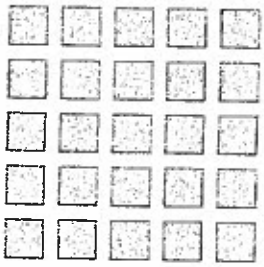
18. $5 \times \square = \square$

Write whether each array shows a square number. If not, find the least number of squares that could be added to make the array a square number.

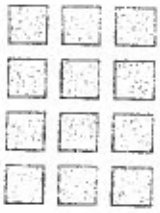
19.



20.



21.



22.

23.

24.

Write about it! Talk about it!

Use what you have learned to answer these questions.

25. How can you use a multiplication table to show that you can multiply factors in any order?

26. In the table, why is the number above a square number the same as the number to the left of that square number?

Name _____ Date _____

Patterns on a Multiplication Table

Example

$6 \times \blacksquare = 18$

3

Complete each multiplication sentence.

1. $8 \times 9 = \blacksquare$ _____

2. $11 \times \blacksquare = 88$ _____

3. $\blacksquare \times 5 = 45$ _____

4. $6 \times \blacksquare = 36$ _____

5. $8 \times \blacksquare = 0$ _____

6. $7 \times 4 = \blacksquare$ _____

7. $\blacksquare \times 5 = 10$ _____

8. $\blacksquare \times 4 = 48$ _____

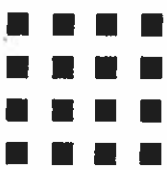
9. $3 \times \blacksquare = 21$ _____

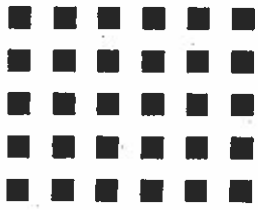
10. $12 \times \blacksquare = 36$ _____

11. $11 \times \blacksquare = 11$ _____

Write whether each array shows a square number.

12.  _____

13.  _____

14.  _____

Problem Solving • Reasoning

15. Write three different multiplication sentences that have a product of 16.

_____

_____

16. Is 121 a square number? Explain.

_____

_____

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Name _____

LESSON 12.2

Multiplying with 7

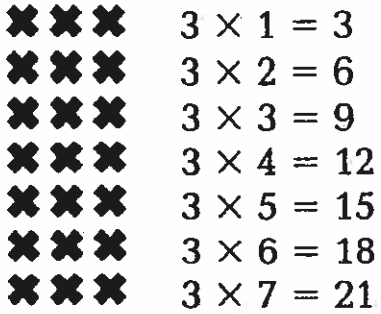
You can multiply two numbers in either order.
The product is the same.

Find 3×7.

$7 \times 1 = 7$
$7 \times 2 = 14$
$7 \times 3 = 21$

3 rows of 7
$3 \times 7 = 21$

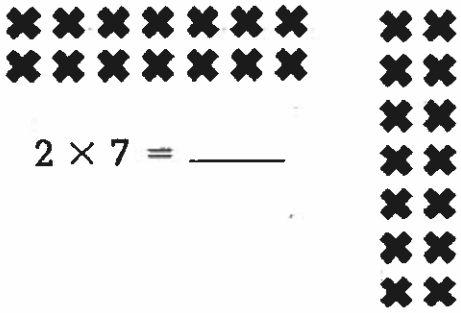
Find 7×3.



$3 \times 1 = 3$
$3 \times 2 = 6$
$3 \times 3 = 9$
$3 \times 4 = 12$
$3 \times 5 = 15$
$3 \times 6 = 18$
$3 \times 7 = 21$

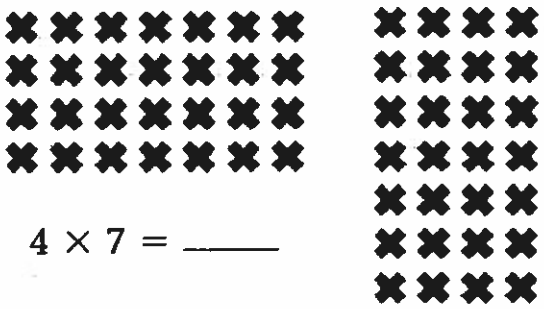
7 rows of 3
$7 \times 3 = 21$

Complete the number sentences.

1. 

$2 \times 7 =$ _____

$7 \times 2 =$ _____

2. 

$4 \times 7 =$ _____

$7 \times 4 =$ _____

Find the product for each pair of factors.

3.	7	1	4.	7	8	5.	7	6	6.	7	5
	$\times 1$	$\times 7$		$\times 8$	$\times 7$		$\times 6$	$\times 7$		$\times 5$	$\times 7$
7.	7	9	8.	7	0	9.	7	3	10.	7	4
	$\times 9$	$\times 7$		$\times 0$	$\times 7$		$\times 3$	$\times 7$		$\times 4$	$\times 7$

PJS3

LESSON 9

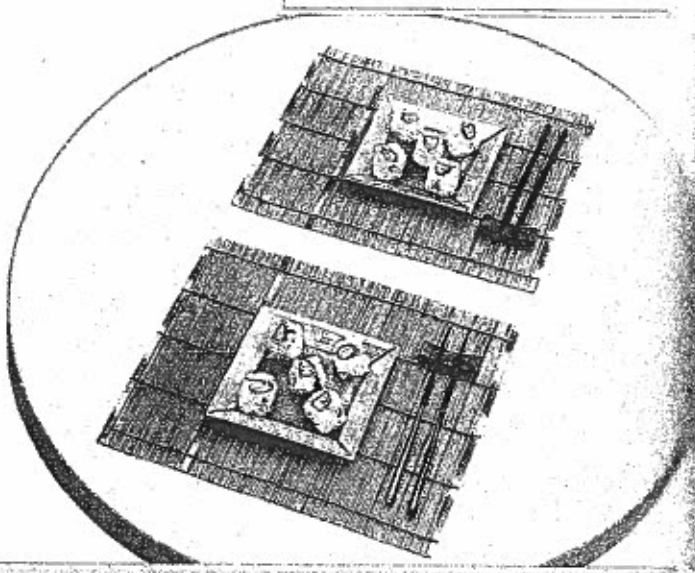
Multiply Three Numbers

You will learn that you can multiply factors in any order to find the product of 3 or more numbers.

Associative Property

Learn About It

When Reni's class was studying Japan, her mom came to show how sushi is made. Reni's mom put 5 pieces of sushi on each tray. She placed 2 trays on each table. There were 4 tables. How many pieces of sushi did she make?



$$5 \times 2 \times 4 = \square$$

- 5: pieces of sushi
- 2: number of trays
- 4: number of tables

Associative Property of Multiplication

The way factors are grouped does not change the product.

You can multiply 5 × 2 first.

$(5 \times 2) \times 4 = \square$

$10 \times 4 = 40$

You can multiply 2 × 4 first.

$5 \times (2 \times 4) = \square$

$5 \times 8 = 40$

No matter which two factors are multiplied first, the product will be the same.

Remember: The parentheses ( ) tell you which factors to multiply first.

Solution: Reni's mom made 40 pieces of sushi.

Explain Your Thinking

► In which order would you multiply $3 \times 2 \times 6$? Explain why.

Guided Practice

Find each product. Multiply factors in parentheses first.

1. $6 \times (1 \times 7) = \square$

$(6 \times 1) \times 7 = \square$

2. $3 \times (4 \times 2) = \square$

$(3 \times 4) \times 2 = \square$

Ask Yourself

- Which two numbers should I multiply first?

ependent Practice

ach product. Multiply factors in parentheses first.

3. (3 × 1) × 2 = ■
4. 4 × (9 × 0) = ■
5. 3 × (3 × 2) = ■
6. (5 × 2) × 3 = ■
7. (9 × 1) × 8 = ■
8. (0 × 7) × 4 = ■

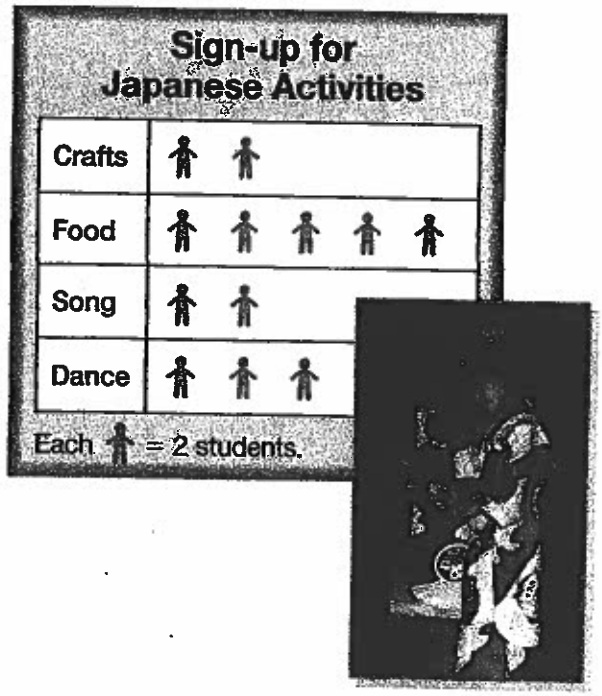
arentheses. Find each product in two different ways.

9. 3 × 2 × 4 = ■
10. 2 × 5 × 1 = ■
11. 3 × 3 × 1 = ■
12. 5 × 2 × 6 = ■
13. 4 × 1 × 8 = ■
14. 9 × 0 × 9 = ■
15. 2 × 4 × 2 = ■
16. 7 × 0 × 3 = ■
17. 8 × 1 × 9 = ■

lem Solving • Reasoning

Data **Use the graph for Problems 18–20.**

18. How many more students chose the food activity than the song activity?
19. Each student in the crafts group used 2 packages of origami paper. Each package had 7 sheets of paper. How many sheets of paper did the group use?
20. Each student signed up for only 1 activity. How many students signed up in all? Explain how you know.



21. **Write About It** When do you need to multiply more than 2 numbers? Use examples to show your thinking.

ixed Review • Test Prep

dd or subtract. *(pages 108–109, 120–121, 132–133)*

22. 74 + 98
23. 401 − 297
24. 658 + 219
25. 4,628 + 3,947
26. 2,708 − 649

27. Which shows 7,415 rounded to the nearest hundred? *(pages 24–26)*

A 7,000 B 7,400 C 7,410 D 7,500

Quiz

Math Facts: Multiplication

Name: _____ Date: _____

(1) 10 × 2	(12) 1 × 2	(23) 1 × 3	(34) 7 × 9	(45) 2 × 0
(2) 8 × 4	(13) 5 × 4	(24) 10 × 0	(35) 2 × 6	(46) 8 × 7
(3) 6 × 3	(14) 4 × 4	(25) 10 × 3	(36) 2 × 4	(47) 4 × 6
(4) 5 × 3	(15) 6 × 5	(26) 4 × 1	(37) 2 × 7	(48) 7 × 6
(5) 2 × 2	(16) 1 × 6	(27) 1 × 10	(38) 4 × 9	(49) 10 × 9
(6) 4 × 0	(17) 5 × 7	(28) 7 × 1	(39) 3 × 3	(50) 8 × 3
(7) 4 × 5	(18) 4 × 7	(29) 2 × 10	(40) 8 × 8	(51) 10 × 1
(8) 9 × 0	(19) 7 × 4	(30) 8 × 0	(41) 5 × 2	(52) 1 × 8
(9) 1 × 0	(20) 6 × 8	(31) 3 × 9	(42) 10 × 7	(53) 3 × 5
(10) 1 × 7	(21) 6 × 4	(32) 8 × 10	(43) 1 × 1	(54) 7 × 2
(11) 10 × 5	(22) 6 × 7	(33) 5 × 1	(44) 6 × 6	(55) 9 × 9

PJ 56

Name _____ Date _____

Multiply Three Numbers

Example

$6 \times (4 \times 2)$

6×8

48

Find each product. Multiply the factors in parentheses first.

1. $5 \times (4 \times 1)$ _____
2. $(3 \times 2) \times 7$ _____
3. $6 \times (3 \times 2)$ _____
4. $9 \times (7 \times 0)$ _____
5. $8 \times (7 \times 1)$ _____
6. $8 \times (5 \times 1)$ _____
7. $2 \times (3 \times 4)$ _____
8. $4 \times (3 \times 3)$ _____
9. $8 \times (0 \times 3)$ _____
10. $5 \times (2 \times 3)$ _____
11. $7 \times (1 \times 5)$ _____
12. $(3 \times 3) \times 5$ _____
13. $(3 \times 2) \times 9$ _____
14. $1 \times (2 \times 7)$ _____
15. $7 \times (2 \times 2)$ _____
16. $7 \times (0 \times 6)$ _____
17. $7 \times (1 \times 7)$ _____
18. $(3 \times 3) \times 6$ _____
19. $4 \times (2 \times 4)$ _____

Problem Solving • Reasoning

20. Anna, Ben, and Cindy each used 2 packs of poster paper. Each pack has 4 sheets of paper in it. How many sheets of paper did they use?

_____

21. Anna and Cindy are sisters. Their mother bought each girl 2 packs of hair bands. Each pack has 5 hair bands. How many hair bands did their mom buy?

_____

Quick Check

Check Your Understanding of Lessons 5–10

Multiply.

1. $\begin{array}{r} 7 \\ \times\ 1 \\ \hline \end{array}$	**2.** $\begin{array}{r} 7 \\ \times\ 7 \\ \hline \end{array}$	**3.** $\begin{array}{r} 7 \\ \times\ 9 \\ \hline \end{array}$	**4.** $\begin{array}{r} 5 \\ \times\ 7 \\ \hline \end{array}$
5. $\begin{array}{r} 9 \\ \times\ 5 \\ \hline \end{array}$	**6.** $\begin{array}{r} 9 \\ \times\ 6 \\ \hline \end{array}$	**7.** $\begin{array}{r} 9 \\ \times\ 9 \\ \hline \end{array}$	**8.** $\begin{array}{r} 4 \\ \times\ 9 \\ \hline \end{array}$

Muliply in any order to find the product.

9. $4 \times 2 \times 4 =$ ▪ **10.** $3 \times 2 \times 3 =$ ▪ **11.** $2 \times 4 \times 6 =$ ▪

Solve. Use the picture for Problems 12 and 13.

12. The electronics store is having a sale on audio cassettes. Irene bought 5 cassettes. She paid with a twenty dollar bill. How much change did she get back?

13. Rick bought twice as many CDs as audio cassettes. He paid $16 for cassettes. How many CDs did he buy?

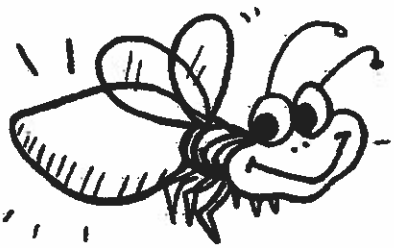
How did you do?

If you had difficulty with any items in the Quick Check, you can use the following pages for review and extra practice.

Items	Review These Pages	Do These Extra Practice Items
1–4	pages 268–269	Set C, page 285
5–8	pages 270–271	Set D, page 285
9–11	pages 278–279	Set E, page 286
12	pages 272–273	3–6, page 287
13	pages 280–181	7–9, page 287

Name _____

A Tongue Twister



zoom

$\overline{45}$ $\overline{16}$ $\overline{54}$ $\overline{0}$ $\overline{40}$ $\overline{18}$ $\overline{18}$ $\overline{48}$

zip

$\overline{45}$ $\overline{18}$ $\overline{56}$ $\overline{0}$ $\overline{9}$ $\overline{18}$ $\overline{36}$ $\overline{36}$

$\overline{45}$ $\overline{32}$ $\overline{0}$ $\overline{18}$ $\overline{45}$ $\overline{9}$ $\overline{32}$ $\overline{18}$ $\overline{36}$ $\overline{45}$ $\overline{9}$ $\overline{18}$ $\overline{24}$

$\overline{45}$ $\overline{56}$ $\overline{36}$ $\overline{40}$.

A 8×7	E 2×9	F 5×9	I 4×8
L 1×9	N 6×8	O 2×8	R 0×8
S 4×9	T 5×8	U 6×9	W 3×8

Name _____ Date _____

Write the correct answer.

Find each product.

1. 9 × 6	**2.** 8 × 7	**3.** 7 × 4	**4.** 3 × 9	**5.** 4 × 8	**6.** 7 × 5
7. 3 × 6	**8.** 4 × 7	**9.** 8 × 3	**10.** 7 × 6	**11.** 6 × 7	**12.** 7 × 3

13. $6 \times 9 =$ ____ **14.** $5 \times 8 =$ ____ **15.** $4 \times 9 =$ ____ **16.** $9 \times 7 =$ ____

Use parentheses. Find each product in two different ways.

17. $6 \times 1 \times 3 =$ ____ **18.** $9 \times 1 \times 8 =$ ____ **19.** $7 \times 8 \times 1 =$ ____

20. $2 \times 2 \times 2 =$ ____ **21.** $3 \times 1 \times 9 =$ ____ **22.** $4 \times 2 \times 4 =$ ____

Solve.

23. Mrs. Johnson has $50. She buys 8 movie tickets at $5 each. How much money does she have left? _____

24. The football team made 4 touchdowns in the first half of the game. They made 2 touchdowns in the second half. Each touchdown is worth 6 points. How many more touchdown points did they score in the first half than in the second half? _____

25. Baseball caps cost $7 each. Darryl wants to buy 9 of them to give to his friends on the team. He has $48. How much more money does Darryl need? _____

Name _____

Multiply as fast as you can.

1.	$10 \times 8 =$ ____	$10 \times 7 =$ ____	$4 \times 9 =$ ____	$8 \times 9 =$ ____
2.	$3 \times 8 =$ ____	$3 \times 9 =$ ____	$5 \times 6 =$ ____	$9 \times 7 =$ ____
3.	$5 \times 9 =$ ____	$2 \times 6 =$ ____	$2 \times 7 =$ ____	$6 \times 8 =$ ____
4.	$7 \times 9 =$ ____	$3 \times 7 =$ ____	$8 \times 8 =$ ____	$7 \times 7 =$ ____
5.	$7 \times 6 =$ ____	$6 \times 9 =$ ____	$6 \times 6 =$ ____	$4 \times 7 =$ ____
6.	$4 \times 6 =$ ____	$5 \times 7 =$ ____	$4 \times 8 =$ ____	$9 \times 8 =$ ____
7.	$5 \times 8 =$ ____	$9 \times 6 =$ ____	$7 \times 8 =$ ____	$6 \times 7 =$ ____
8.	$9 \times 9 =$ ____	$8 \times 7 =$ ____	$3 \times 6 =$ ____	$8 \times 6 =$ ____

Pg 61

Extra Practice

Set A *(Lesson 2, pages 258–259)*

Find each product.

1. $\begin{array}{r} 6 \\ \times\ 3 \\ \hline \end{array}$	**2.** $\begin{array}{r} 7 \\ \times\ 6 \\ \hline \end{array}$	**3.** $\begin{array}{r} 6 \\ \times\ 4 \\ \hline \end{array}$	**4.** $\begin{array}{r} 0 \\ \times\ 6 \\ \hline \end{array}$	**5.** $\begin{array}{r} 6 \\ \times\ 5 \\ \hline \end{array}$
6. $\begin{array}{r} 1 \\ \times\ 6 \\ \hline \end{array}$	**7.** $\begin{array}{r} 6 \\ \times\ 6 \\ \hline \end{array}$	**8.** $\begin{array}{r} 8 \\ \times\ 6 \\ \hline \end{array}$	**9.** $\begin{array}{r} 6 \\ \times\ 2 \\ \hline \end{array}$	**10.** $\begin{array}{r} 6 \\ \times\ 9 \\ \hline \end{array}$
11. 6×1	**12.** 2×6	**13.** 9×6	**14.** 6×7	**15.** 4×6
16. 6×3	**17.** 5×6	**18.** 6×6	**19.** 0×6	**20.** 6×8

Compare. Write >, <, or = for each ●.

21. $4 \times 6 \bullet 4 \times 5$	**22.** $9 \times 6 \bullet 8 \times 6$	**23.** $5 \times 6 \bullet 6 \times 6$
24. $3 \times 6 \bullet 6 \times 3$	**25.** $3 \times 6 \bullet 2 \times 6$	**26.** $7 \times 6 \bullet 6 \times 8$

Set B *(Lesson 3, pages 260–261)*

Find each product.

1. $\begin{array}{r} 6 \\ \times\ 8 \\ \hline \end{array}$	**2.** $\begin{array}{r} 8 \\ \times\ 3 \\ \hline \end{array}$	**3.** $\begin{array}{r} 4 \\ \times\ 8 \\ \hline \end{array}$	**4.** $\begin{array}{r} 9 \\ \times\ 8 \\ \hline \end{array}$	**5.** $\begin{array}{r} 8 \\ \times\ 0 \\ \hline \end{array}$
6. $\begin{array}{r} 2 \\ \times\ 8 \\ \hline \end{array}$	**7.** $\begin{array}{r} 8 \\ \times\ 7 \\ \hline \end{array}$	**8.** $\begin{array}{r} 1 \\ \times\ 8 \\ \hline \end{array}$	**9.** $\begin{array}{r} 8 \\ \times\ 8 \\ \hline \end{array}$	**10.** $\begin{array}{r} 5 \\ \times\ 8 \\ \hline \end{array}$
11. 8×7	**12.** 8×8	**13.** 2×8	**14.** 10×8	**15.** 1×8
16. 8×5	**17.** 8×9	**18.** 0×8	**19.** 4×8	**20.** 3×8

Compare. Write >, <, or = for each ●.

21. $4 \times 8 \bullet 8 \times 4$	**22.** $9 \times 8 \bullet 8 \times 8$	**23.** $5 \times 8 \bullet 8 \times 5$
24. $3 \times 8 \bullet 4 \times 6$	**25.** $8 \times 0 \bullet 1 \times 8$	**26.** $8 \times 3 \bullet 2 \times 8$

Extra Practice

Set C *(Lesson 5, pages 268–269)*

Find each product.

1. 4×7	**2.** 7×3	**3.** 2×7	**4.** 9×7	**5.** 7×8
6. 7×7	**7.** 7×6	**8.** 10×7	**9.** 7×5	**10.** 7×0

Compare. Write >, <, or = for each ●.

11. 3×7 ● 4×7	**12.** 9×7 ● 7×6	**13.** 0×7 ● 7×5
14. 2×7 ● 7×2	**15.** 8×7 ● 7×8	**16.** 7×1 ● 3×3
17. 7×7 ● 5×10	**18.** 7×4 ● 3×9	**19.** 7×2 ● 1×7

Set D *(Lesson 6, pages 270–271)*

Multiply.

1. 9×3	**2.** 7×9	**3.** 9×1	**4.** 2×9	**5.** 9×8
6. 9×6	**7.** 5×9	**8.** 9×0	**9.** 9×4	**10.** 9×9
11. 9×0	**12.** 2×9	**13.** 9×9	**14.** 1×9	**15.** 9×10
16. 9×4	**17.** 6×9	**18.** 9×8	**19.** 7×9	**20.** 9×3

Follow the rule to complete each table.

Rule: Multiply by 9

	Input	Output
21.	7	●
22.	●	18
23.	5	●

Rule: Multiply by 7

	Input	Output
24.	4	●
25.	8	●
26.	●	49

Rule: Multiply by 8

	Input	Output
27.	●	24
28.	9	●
29.	●	40

Extra Practice

Set E *(Lesson 9, pages 278–279)*

Find each product. Multiply factors in ( ) first.

1. $(3 \times 1) \times 3$
$3 \times (1 \times 3)$

2. $2 \times (4 \times 2)$
$(2 \times 4) \times 2$

3. $3 \times (3 \times 2)$
$(3 \times 3) \times 2$

4. $(3 \times 0) \times 9$
$3 \times (0 \times 9)$

5. $(3 \times 1) \times 9$
$3 \times (1 \times 9)$

6. $5 \times (2 \times 5)$
$(5 \times 2) \times 5$

7. $2 \times (3 \times 3)$
$(2 \times 3) \times 3$

8. $(4 \times 2) \times 3$
$4 \times (2 \times 3)$

9. $8 \times (1 \times 4)$
$(8 \times 1) \times 4$

10. $5 \times (1 \times 6)$

11. $1 \times (9 \times 6)$

12. $(5 \times 3) \times 0$

13. $6 \times (5 \times 2)$

14. $5 \times (3 \times 0)$

15. $(9 \times 3) \times 1$

Use parentheses. Find each product in two different ways.

16. $4 \times 2 \times 4$

17. $7 \times 0 \times 9$

18. $7 \times 1 \times 5$

19. $1 \times 6 \times 10$

20. $5 \times 2 \times 3$

21. $1 \times 8 \times 3$

22. $3 \times 2 \times 4$

23. $3 \times 4 \times 1$

24. $3 \times 2 \times 5$

25. $1 \times 2 \times 3$

26. $3 \times 3 \times 3$

27. $1 \times 2 \times 7$

28. $4 \times 2 \times 5$

29. $8 \times 1 \times 10$

30. $9 \times 1 \times 9$

Find the missing factor.

31. $(4 \times 2) \times \square = 8$

32. $(9 \times 1) \times \square = 18$

33. $(1 \times 2) \times \square = 10$

34. $(3 \times 3) \times \square = 27$

35. $(9 \times 7) \times \square = 63$

36. $(7 \times 5) \times \square = 0$

37. $\square \times (1 \times 9) = 45$

38. $\square \times (2 \times 4) = 56$

39. $\square \times (5 \times 5) = 25$

40. $\square \times (8 \times 1) = 0$

41. $\square \times (1 \times 10) = 40$

42. $\square \times (6 \times 2) = 12$

Extra Practice • Problem Solving

Decide what operations to do and the order in which you will do them. Then solve. *(Lesson 4, pages 264–265)*

1. Leon shared 45 marbles with his brothers. He gave 15 marbles to his older brother and 23 marbles to his younger brother. How many marbles did Leon have left?

2. Lu bought 3 packs of 8 post cards. She sent one post card to each of 18 friends and put the rest in an album. How many post cards did Lu put in her album?

Solve. *(Lesson 7, pages 272–273)*

3. Kate fed 2 cups of dog food to Sparky. She fed 3 times that amount to Woofer. She has 3 cups of dog food left. How much dog food did Kate have to start with?

4. Sue and Peg knitted squares for a blanket. Sue knitted 12 squares more than Peg did. Together they knitted 32 squares. How many squares did each girl knit?

5. Each time that Tran puts $2 into his bank, his father puts $1 into it. When Tran has put $12 into his bank, how much money will his father have put into the bank?

6. Bobby gave 6 cookies to each of his 2 sisters. He ate 2 cookies and had 12 cookies left over. How many cookies did Bobby have to begin with?

Use the table to solve each problem. *(Lesson 10, pages 280–281)*

7. Helen plans to spend 4 hours watching rented movies on Saturday. Can she watch *Laddie Come Home* and *Gone in the Night*? Explain.

8. Richie's parents rented *Dusty Boots*, *Gone in the Night*, and *Laddie Come Home*. How many hours will it take to watch these 3 movies?

9. How many hours would it take to watch all of the movies listed in the table?

Movie Lengths

Movie	Running Time
Gone in the Night	2 h 30 min
Laddie Come Home	2 h 10 min
The Puppets Movie	1 h 30 min
Dusty Boots	1 h 50 min

Chapter Review

Reviewing Vocabulary

Answer each question.

1. Which numbers on the right are multiples of 4?
2. Which number on the right is a square number?
3. What is the Associative Property of Multiplication?
4. What is the answer in multiplication called?
5. What are the numbers that are multiplied called?

12 8 15 21 16

Reviewing Concepts and Skills

Find each product. *(pages 258 – 262, 268 – 271)*

6. 4×6	**7.** 6×1	**8.** 3×6	**9.** 6×6	**10.** 6×9
11. 8×3	**12.** 7×8	**13.** 5×8	**14.** 10×8	**15.** 8×8
16. 3×7	**17.** 7×6	**18.** 4×7	**19.** 7×7	**20.** 7×9
21. 9×5	**22.** 9×4	**23.** 3×9	**24.** 8×9	**25.** 9×9
26. 7×2	**27.** 9×10	**28.** 6×1	**29.** 3×6	**30.** 7×8
31. 8×6	**32.** 4×7	**33.** 9×8	**34.** 5×7	**35.** 9×6
36. 7×7	**37.** 8×9	**38.** 10×6	**39.** 3×8	**40.** 5×6

Compare. Write >, <, or = for each ●. *(pages 258 – 262, 268 – 271)*

41. 5×6 ● 6×5	**42.** 8×1 ● 1×9	**43.** 4×3 ● 5×3
44. 2×9 ● 9×1	**45.** 8×3 ● 3×8	**46.** 9×7 ● 6×9
47. 6×4 ● 5×7	**48.** 3×7 ● 4×6	**49.** 8×3 ● 6×4

Find each product. Multiply factors in ( ) first. *(pages 278 – 279)*

50. $(0 \times 8) \times 7$ **51.** $2 \times (5 \times 2)$ **52.** $(1 \times 6) \times 7$

53. $6 \times (2 \times 4)$ **54.** $(8 \times 0) \times 5$ **55.** $4 \times (2 \times 2)$

Use parentheses. Find each product in two different ways.

56. $3 \times 4 \times 1$ **57.** $1 \times 9 \times 7$ **58.** $1 \times 6 \times 3$

59. $2 \times 7 \times 1$ **60.** $5 \times 2 \times 2$ **61.** $3 \times 7 \times 0$

62. $1 \times 3 \times 9$ **63.** $8 \times 2 \times 1$ **64.** $4 \times 2 \times 3$

Solve. Use the sign for Problems 65–67. *(pages 278 – 279, 272 – 273, 280 – 281)*

65. Wanda bought 3 pints of strawberries and 2 pints of blueberries. How much money did she spend?

66. Ms. Lyons is making pies for a party. She needs 4 pints of raspberries and 2 pints of huckleberries. How much will Ms. Lyons spend on the berries?

67. Carl wants to buy one pint of each of the strawberries, raspberries, blueberries, and huckleberries. He has $15. Does he have enough money? Explain.

Brain Teasers Math Reasoning

Mystery Multiple

Jim is thinking of a number less than 100 that is a multiple of 9.

The number is also 5 more than a multiple of 7.

What is the number?

Mystery Numbers

Tina is thinking of two numbers that are both less than 10.

If she multiplies the numbers, the answer is 34 more than if she adds them.

What are the numbers?

Science

Week 1

5/18: Complete pgs. 1&2.

5/19: Complete pgs. 3&4.

5/20: Complete pgs. 6&7. (We are skipping page 5).

5/21: Complete pgs. 8&9.

5/22: Complete pgs. 10 &11.

Week 2

5/25: Memorial Day! No classes!

5/26: Complete pgs. 12 &13.

5/27: Complete pgs. 14 &15.

5/28: Complete pgs. 18 &19. (Skip pages 16 &17).

5/29: Complete pgs. 20-22.

Week 3:

6/1: Read over the Solar System mini book to gather information for you planet report.

6/2: Start your planet report. Most information to complete the report can be found in the packets we have gone over in the past 2 weeks. If there are questions you cannot answer, please look them up using Google. I will enclose a couple reliable websites. This report is due when you return packets.

6/3-6/5: Finish working on planet reports.

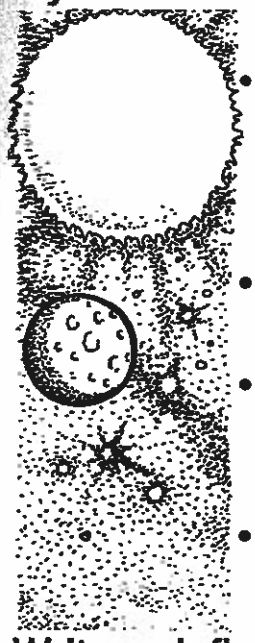
Websites:

- https://www.kids-world-travel-guide.com/solar-system.html
- www.spaceplace.nasa.gov
- https://www.kidzone.ws/planets/
- https://www.esa.int/kids/en/learn/Our_Universe/Planets_and_moons/The_Solar_System_and_its_planets

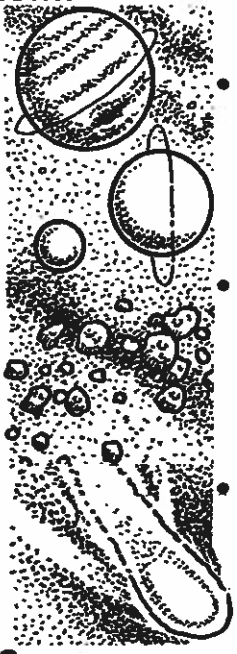
Name _____ Skill: Writing definitions

What's in Our Solar System?

An *astronomer*, or scientist who studies the universe, might make this list if you asked her what is in our solar system.



- one **star**, or hot glowing ball of gases, called the Sun
- all the planets' moons
- small chunks of rock or ice called **meteoroids**
- lots of empty space



- nine worlds called **planets** that travel around the Sun
- chunks of rock and metal called **asteroids**
- frozen balls of dirty ice called **comets**

Write a definition for each of these words.

1. astronomer _____

_____

2. star _____

3. planets _____

_____

4. asteroids _____

5. meteoroids _____

_____

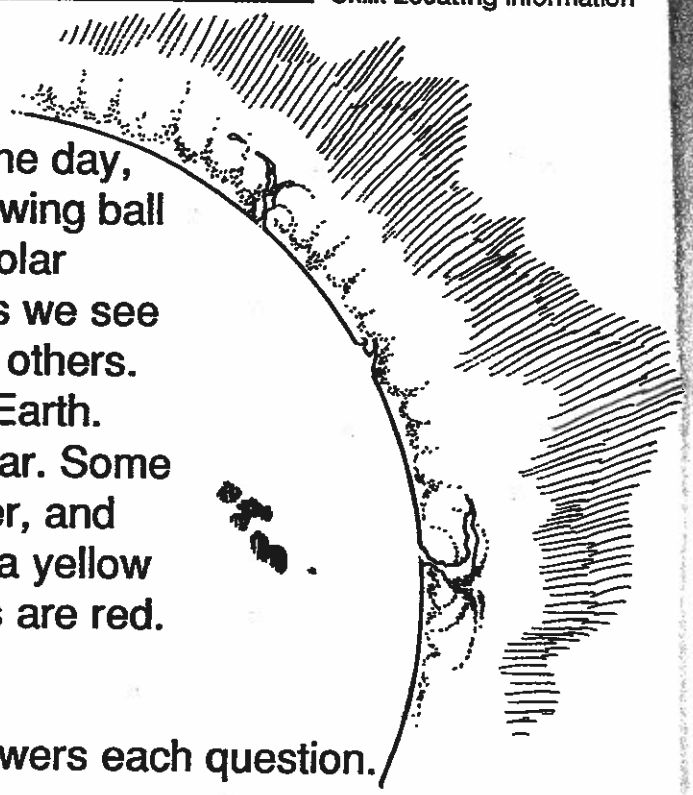
6. comets _____

_____

Brainwork! Find *solar system* in a dictionary or in the glossary of a science book. Write the definition you find.

Name _____ Skill: Locating information

Our Sun



When you see the Sun shining during the day, you are seeing a star. A star is a huge glowing ball of gases. The Sun is the only star in our solar system. It looks much larger than the stars we see at night because it is closer to us than the others. Even so, the Sun is 93 million miles from Earth.

Our Sun is really only a medium-size star. Some other stars in the universe are much bigger, and many stars are much smaller. The Sun is a yellow star. Hotter stars are blue and cooler stars are red.

Copy the sentence from the story that answers each question.

1. What is a star? _____

_____

2. Which star is in our solar system? _____

_____

3. How far is the Sun from Earth? _____

_____

4. What color is the Sun? _____

5. Why does the Sun look larger to us than other stars?

_____

_____

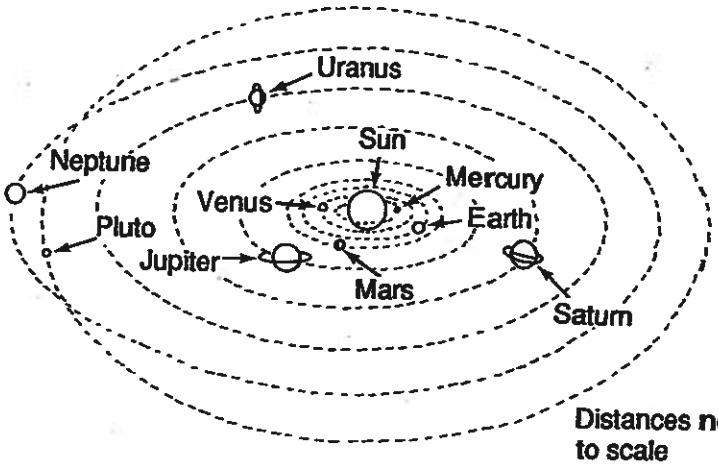
_____

Brainwork! The Sun's light and heat help Earth's plants and animals to grow. Draw a picture to show this.

Name _____ Skill: Scientific vocabulary

The Planets Are Moving!

Each of the planets in our solar system **revolves**, or travels, around the Sun. The planets circle the Sun along paths called **orbits**. Because the planets are at different distances from the Sun, each one takes a different length of time to revolve once.



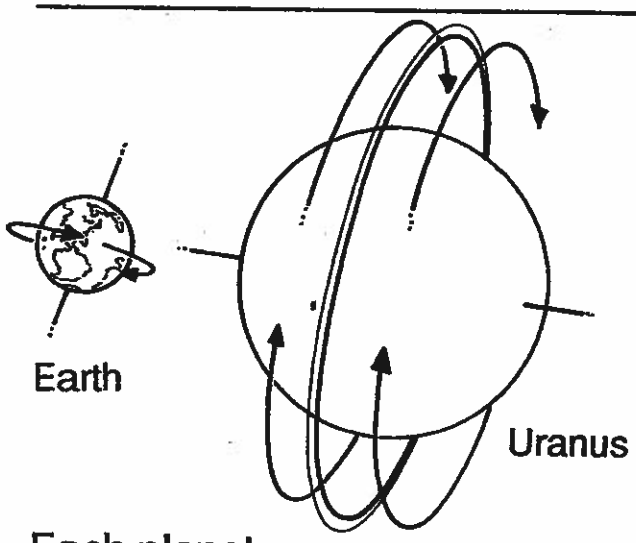
Distances not to scale

1. What word means *travels around*? _____

2. What are the planets' paths around the sun called? _____

3. Why do the planets take different lengths of time to revolve around the Sun? _____

_____



Each planet in our solar system **rotates**, or **spins**, around a line through its center. This imaginary line is called an **axis**. It takes each planet a different length of time to rotate once.

4. Each planet _____ around a line through its center.

5. This imaginary line is called an _____.

6. *Rotates* means _____.

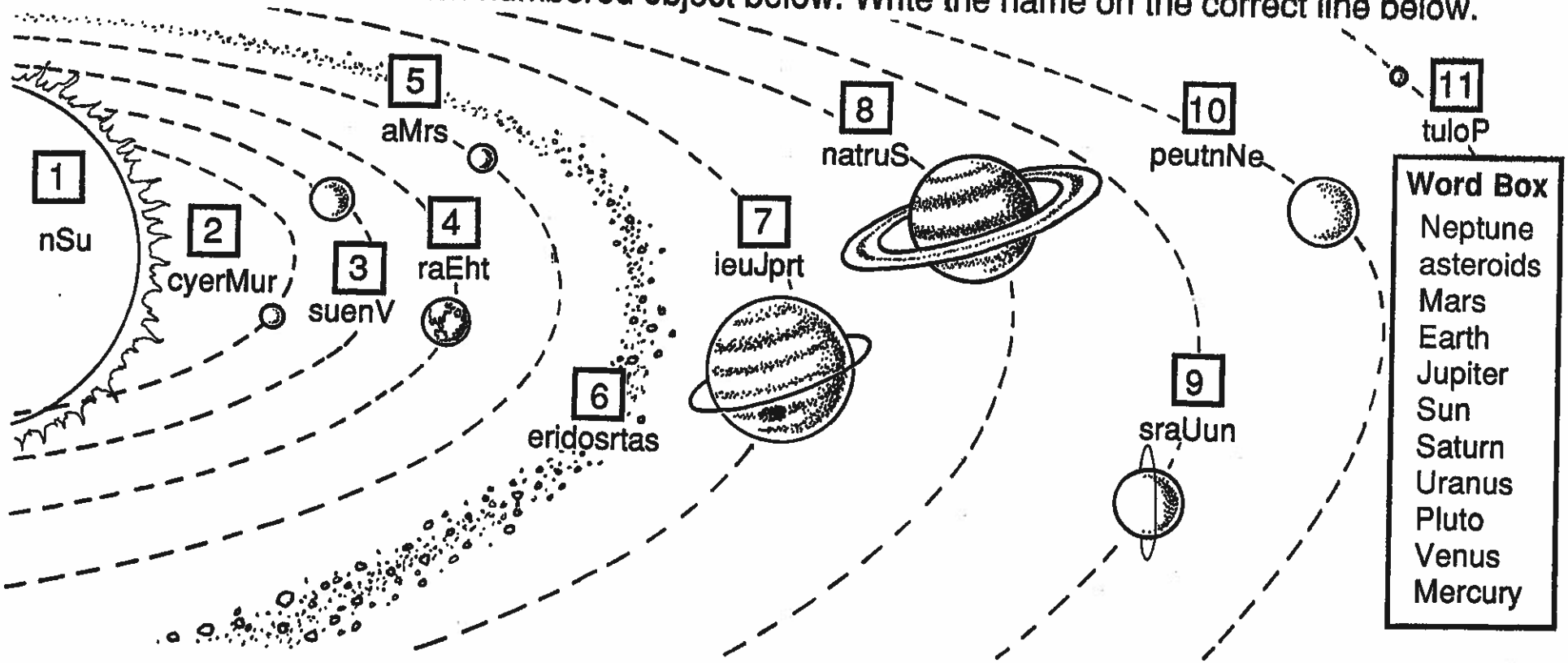
Brainwork! Use two things from your desk. Move one so it revolves around the other. Then put one down and move the other so it rotates.

Name _____

Skill: Unscrambling words

Solar System Scramble

Unscramble the name of each numbered object below. Write the name on the correct line below.



Word Box

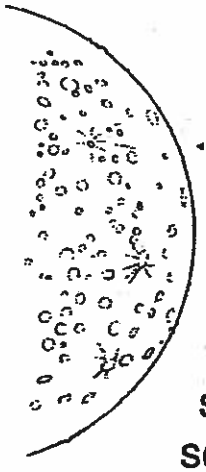
Neptune
asteroids
Mars
Earth
Jupiter
Sun
Saturn
Uranus
Pluto
Venus
Mercury

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____

Brainwork! Turn this paper over and write the names of the nine planets in our solar system.

Name _____ Skill: Comprehension

Mercury—Closest to the Sun



Mercury is the planet closest to the Sun. That is why Mercury travels around the Sun faster than any other planet. It takes Mercury 88 days to revolve once around the Sun.

Little was known about Mercury before 1974. Scientists have a hard time studying Mercury with telescopes because of the Sun's great light. In 1974 and 1975 an unmanned spacecraft named *Mariner X* flew by Mercury three times and sent scientists new information about the planet.

The surface of Mercury is much like the moon's surface. It has high cliffs and deep craters, or holes. Mercury has almost no atmosphere, or gases surrounding it. Temperatures on the planet range from 950° F to –210° F! Mercury has no moons.

Write each answer in a sentence.

1. Which planet is closest to the Sun? _____

_____

2. How long does it take Mercury to revolve around the Sun? _____

_____

3. Why do scientists have a hard time studying Mercury with telescopes?

_____

4. What did Mariner X do? _____

_____

_____

5. Describe Mercury's surface. _____

_____

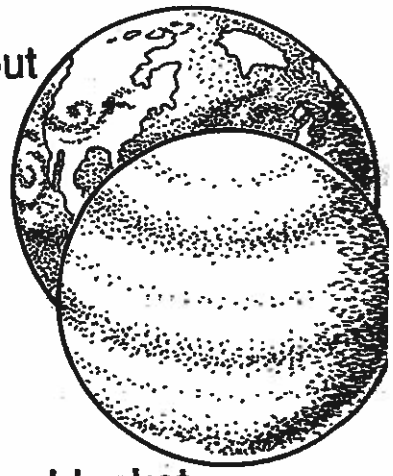
Brainwork! Make a list of three interesting facts about Mercury.

Name _____ Skill: Cloze

Venus—Earth's Twin

Use the words in the Word Bank to complete the story.

Word Bank			
light	against	lightning	size
closest	higher	atmosphere	melt



Venus has been called Earth's twin because it is about the same _____ (1) as Earth. Venus is the second planet from the Sun and is the planet _____ (2) to Earth. Venus was also the first planet to be studied by spacecraft. Venus has no moon.

Venus has an interesting _____ (3), or blanket of gases around it. It reflects, or bounces off, so much of the Sun's _____ (4) that Venus is easier to see than any other planet. The atmosphere also lets some sunlight in and traps heat _____ (5) the planet's surface. Therefore, temperatures on Venus are high enough to _____ (6) some metals. Clouds move at high speeds in Venus's atmosphere, and bolts of _____ (7) streak across its sky.

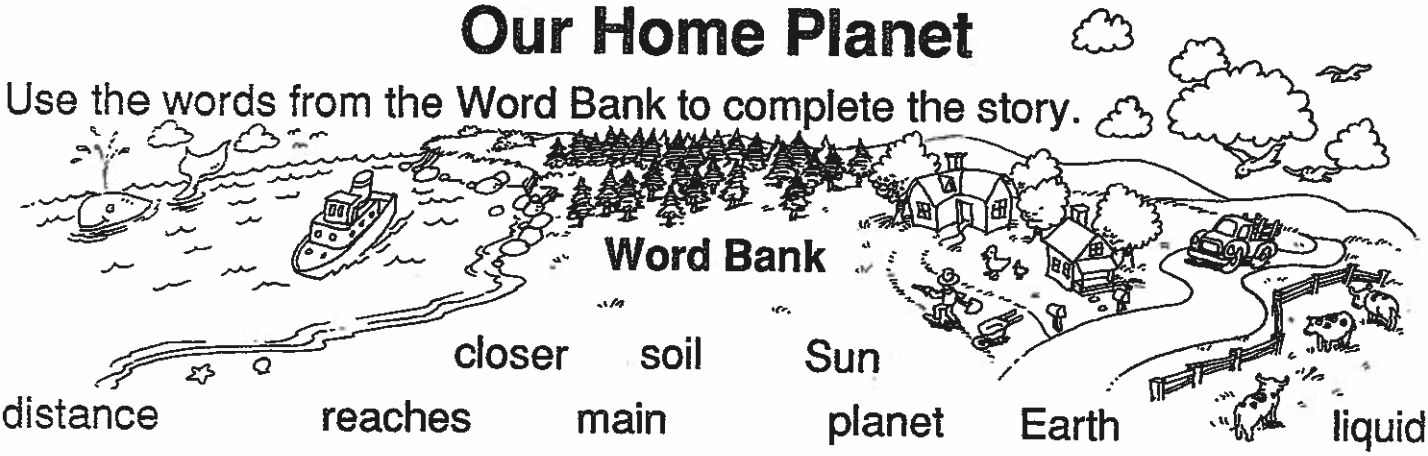
Venus has volcanoes on its surface and a mountain _____ (8) than the highest on Earth. There is no liquid water on Venus. Earth's plants and animals could not live on Venus.

Brainwork! Think of another nickname for Venus. Write to tell why it is a good nickname.

Name _____ Skill: Cloze

Our Home Planet

Use the words from the Word Bank to complete the story.



Word Bank

closer soil Sun

distance reaches main planet Earth liquid

The third planet from the _____(1) is our home planet Earth. Earth has something no other _____(2) is known to have—living things.

Earth is at the right _____(3) from the Sun to have the liquid water necessary to support life. Mercury and Venus are too hot because they are _____(4) to the Sun. The other planets are too far from the Sun to have _____(5) water. Not much heat or light _____(6) them, so the water would be in the form of ice.

Earth has a lot of water. Most living things need water. Water helps to control the earth's weather and climate. Water also breaks rocks into _____(7) which plants need to grow.

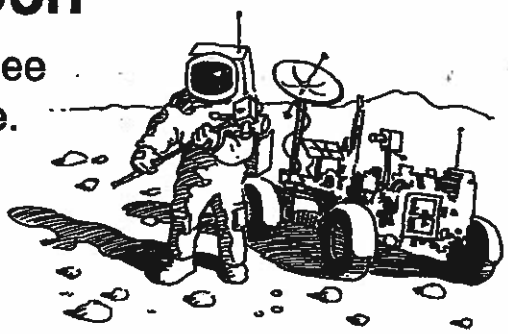
Earth is surrounded by a blanket of air called the atmosphere. Oxygen is one of the _____(8) gases in the atmosphere. Most animals breathe oxygen.

_____(9) is a special planet!

Brainwork! Design a poster showing why Earth is a good planet for living things.

Name _____ Skill: Vocabulary development

We See Our Moon



Earth has one moon. It is the moon that we see in the sky. The moon is Earth's partner in space. It makes a path around, or **orbits**, Earth. It also orbits the Sun along with the earth.

The moon looks large because it is closer to Earth than the Sun or planets. Four moons would stretch across the **diameter**, or widest part of the earth.

In 1969 **astronaut** Neil Armstrong took the first steps on the moon. Scientists have studied rocks brought back from the moon.

The surface of the moon has many deep holes called **craters**. It has flat areas called **maria**. The moon also has rocky mountain areas called **highlands**. There is no air, wind, or water on the moon. No life exists there.

Write the word in dark print from the story that matches each definition.

1. deep holes in the moon's surface _____
2. to make a path around _____
3. flat land on the moon _____
4. the widest part of the earth _____
5. areas with rocky mountains _____
6. a person who travels in space _____

Write two sentences about the moon using two of the words in dark print.

1. _____

_____

2. _____

_____

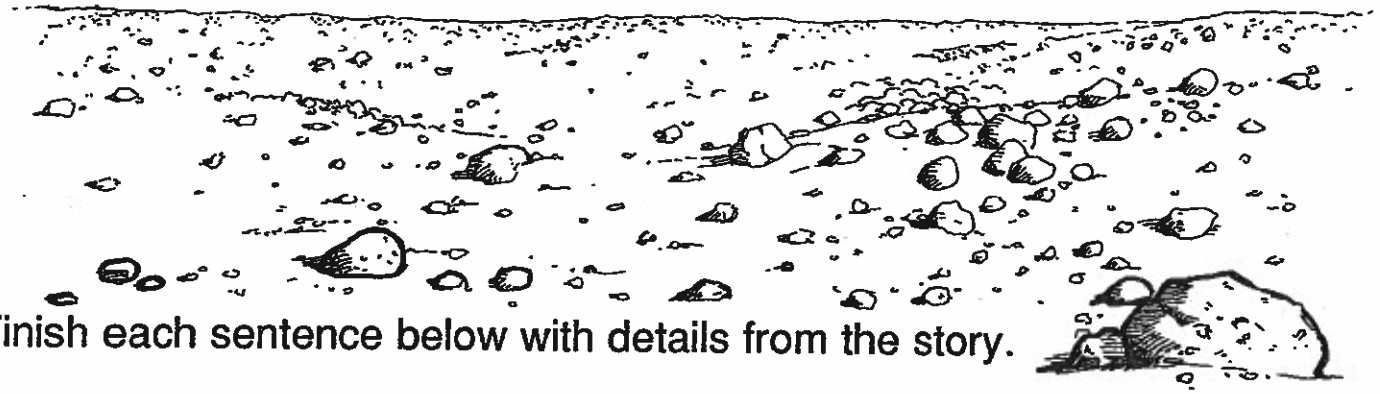
Brainwork! Would you like to visit the moon? Write to explain your answer.

Name _____ Skill: Finding details

Mars—The Red Planet

Mars, the fourth planet from the Sun, is half the size of Earth. Mars has two moons. It has been called the Red Planet because of its red color. Parts of this planet's surface are covered with sand dunes and dry reddish deserts. Other areas look like dried up riverbeds. Some scientists believe water may once have flowed on Mars. Mars also has two polar caps made up of frozen water and dry ice. Pink, blue, and white clouds move through the Red Planet's sky.

For a long time some people thought there might be life on Mars. When two U.S. spacecraft landed on the planet in 1976, they sent back photographs of Mars and did experiments to find out if life exists there. Scientists now believe that Mars does not have plant or animal life like that on Earth.



Finish each sentence below with details from the story.

1. Mars is the _____ planet from the Sun, and it has _____ moons.

2. Mars is nicknamed the _____.

3. Two U.S. spacecraft landed on Mars in _____, sent back photographs, and did _____.

4. Mars has dry reddish _____ and what look like dried up _____.

5. Mars has two _____ made of frozen water and dry ice.

Brainwork! Draw and color a picture that shows your idea of the Red Planet's landscape.

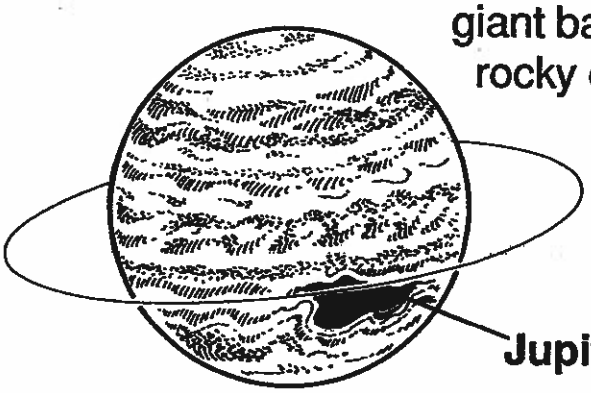
Name _____ Skill: True or false

Jumbo Jupiter

Jupiter is the largest of the nine planets. It is more than 11 times larger than Earth.

Jupiter is the fifth planet from the Sun, and it travels once around the Sun every 12 years. This jumbo planet rotates in just ten hours—faster than any other planet!

Thick clouds surround Jupiter. Most scientists believe that the belts of color in Jupiter's atmosphere are caused by different gases. The planet is a giant ball of liquids and gases with, perhaps, a small rocky core. Its famous Great Red Spot is a huge storm of swirling gases. Lightning streaks across Jupiter's sky. Jupiter has a thin dust ring around its middle and 16 known moons.



Jupiter's Great Red Spot

Write **true** or **false**.

_____ 1. Jupiter is the smallest planet in our solar system.

_____ 2. Earth is larger than Jupiter.

_____ 3. It takes 12 years for Jupiter to travel around the Sun.

_____ 4. Jupiter rotates faster than any other planet.

_____ 5. Jupiter's Great Red Spot is a huge storm of swirling gases.

_____ 6. Jupiter has a thick ice ring around its middle.

_____ 7. Jupiter has more than ten moons.

_____ 8. Jupiter is the sixth planet from the sun.

Brainwork! Write one true and one false statement about Jupiter. Have a friend tell which is true and which is false.

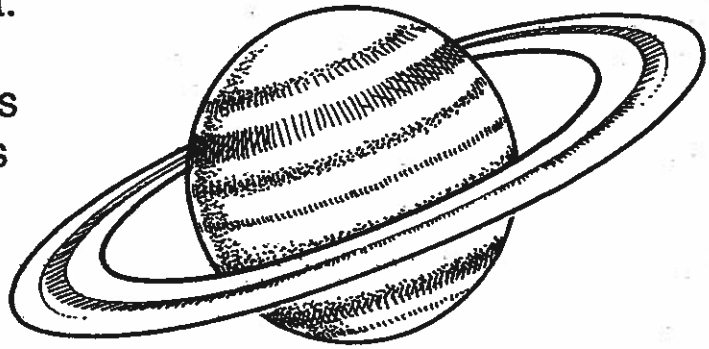
Name _____ Skill: Comprehension

Stunning Saturn

Saturn is the sixth planet from the Sun. Saturn is best known for the beautiful rings around its middle. The rings are thin and flat and made of pieces of rock and ice. They stretch more than 100,000 miles across!

Some scientists believe the rings are made of particles left over from the time when Saturn first became a planet. Others believe the rings are made of pieces of a moon that was torn apart when it came too close to Saturn.

Saturn is the second largest planet. Since Saturn is more than nine times farther than Earth is from the Sun, it is much colder than Earth. The planet is a giant ball of spinning gases. Saturn has at least 20 moons.



Write each answer in a sentence.

1. For what is Saturn best known? _____

_____

2. What is one idea scientists have about how Saturn's rings were made?

_____

_____

3. How does Saturn compare in size with the other planets? _____

_____

4. Why is Saturn colder than Earth? _____

_____

5. How many moons does Saturn have? _____

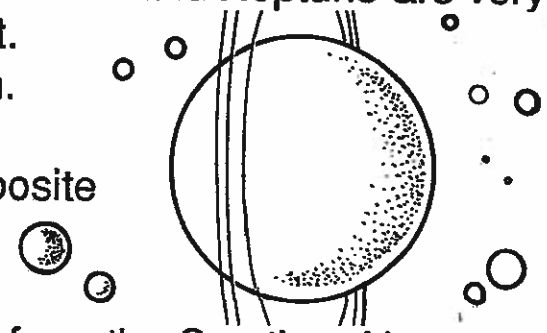
_____

Brainwork! Write a poem about Saturn's beautiful rings.

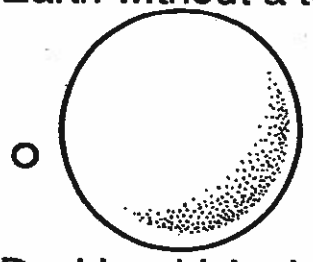
Name _____ Skill: Locating information

The Blue-green Giants

Uranus and Neptune are giant planets more than a billion miles from the Sun and Earth. They are about the same size. Each is more than $3\frac{1}{2}$ times larger than Earth. They look blue-green in photos because both have a gas called methane in their atmospheres. Uranus and Neptune are very cold planets where life probably doesn't exist.



Uranus is the seventh planet from the Sun. It is known to have at least 15 moons and 11 thin rings. Uranus rotates in the direction opposite to that of Earth. It can be seen from Earth without a telescope.



Neptune is farther from the Sun than Uranus. It has eight known moons. Some astronomers believe it may also have a ring. Neptune cannot be seen without a telescope.

Decide which planet or planets each fact describes. If it describes Uranus, write *Uranus*. If it describes Neptune, write *Neptune*. If it describes both Uranus and Neptune, write *both*.

1. rotates in the opposite direction

_____

2. called a blue-green giant

_____

3. cannot be seen without a telescope

_____

4. is more than a billion miles from Earth

_____

5. has methane in its atmosphere

_____

6. has at least 11 rings

_____

7. can be seen without a telescope

_____

8. has eight known moons

_____

Brainwork! List three ways Uranus and Neptune are alike. List three ways they are different.

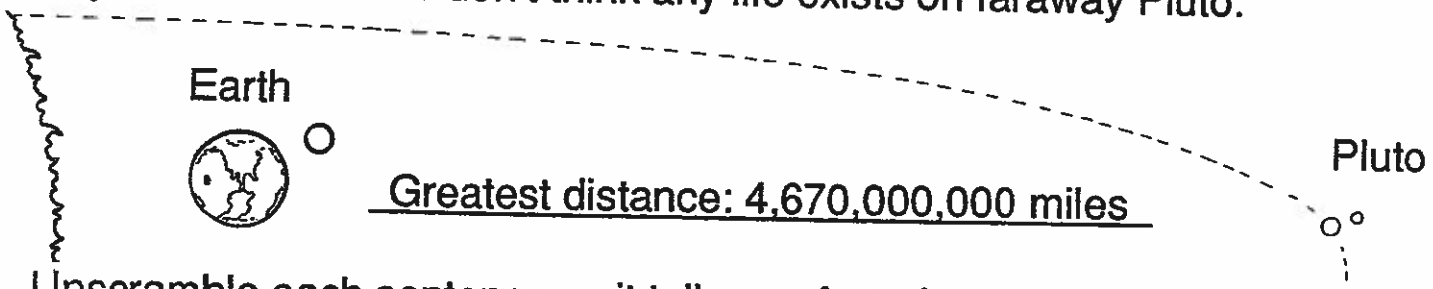
Name _____ Skill: Unscrambling facts

Faraway Pluto

Pluto travels farther from the Sun than any other planet in our solar system. At its farthest point, it is more than four billion miles from Earth!

Pluto is also the smallest of the nine known planets. It is smaller than Earth's moon.

Scientists know very little about the planet Pluto because it is so far away. It is believed to be like a rocky snowball in space. Charon is Pluto's only moon. Scientists don't think any life exists on faraway Pluto.



Unscramble each sentence so it tells one fact about Pluto. Write the fact.

1. farthest Sun Pluto travels from the

   _____

2. has moon one Pluto

   _____

3. planet smallest Pluto is the

   _____

4. travels billion more four than Earth from miles Pluto

   _____

   _____

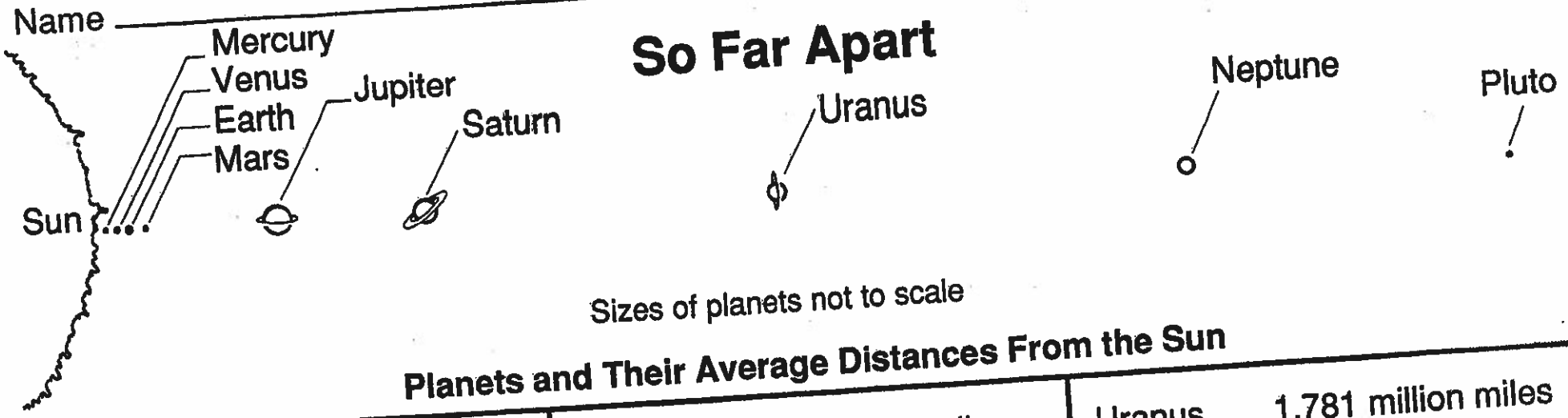
5. Pluto's named is Charon moon

   _____

Brainwork! Write two questions you would like to ask an astronomer about Pluto or its moon.

Name _____

So Far Apart



Sizes of planets not to scale

Planets and Their Average Distances From the Sun

Mercury	36 million miles	Mars	142 million miles	Uranus	1,781 million miles
Venus	67 million miles	Jupiter	484 million miles	Neptune	2,788 million miles
Earth	93 million miles	Saturn	885 million miles	Pluto	3,660 million miles

Use the chart and diagram to answer these questions.

1. What is Neptune's average distance from the Sun?

_____

2. Which planet has an average distance from the Sun of 142 million miles?

_____

3. Which planet is closest to the Sun—Saturn, Mars, or Neptune?

_____

4. How much farther from the Sun is Venus than Mercury?

_____

5. How much farther is the fourth planet from the Sun than the third planet from the Sun?

_____

Brainwork! Write why you think it is difficult for people to travel to other planets.

Name _____ Skill: Using a code

Interesting Moons

Use the code to discover the names of some moons in our solar system.

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

A. Jupiter's moon named ___ ___ has at least eight active volcanoes.
(9 15)

B. ___ ___ ___ ___ ___ ___ travels around Mars in $7\frac{1}{2}$ hours. No other moon travels so fast.
(16 8 15 2 15 19)

C. Jupiter also has the largest moon in the solar system. It is named

___ ___ ___ ___ ___ ___ ___ ___.
(7 1 14 25 13 5 4 5)

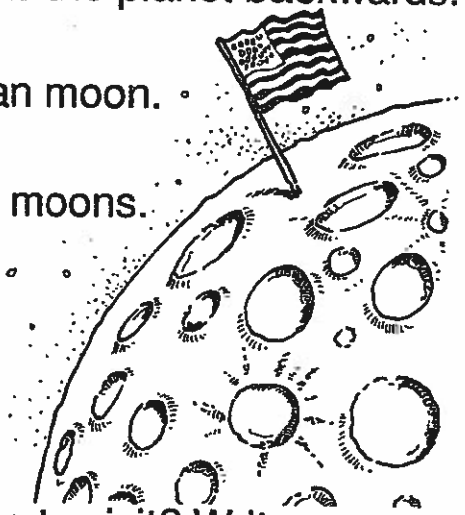
D. ___ ___ ___ ___ ___ is known to have a thick atmosphere. It is one of Saturn's moons.
(20 9 20 1 14)

E. Neptune's moon ___ ___ ___ ___ ___ ___ orbits the planet backwards.
(20 18 9 20 15 14)

F. ___ ___ ___ ___ ___ ___ is the smallest Martian moon.
(4 5 9 13 15 19)

G. ___ ___ ___ ___ ___ ___ is one of Jupiter's 16 moons.
(5 21 18 15 16 1)

H. The first footsteps on another surface in space were taken on Earth's ___ ___ ___ ___.
(13 15 15 14)

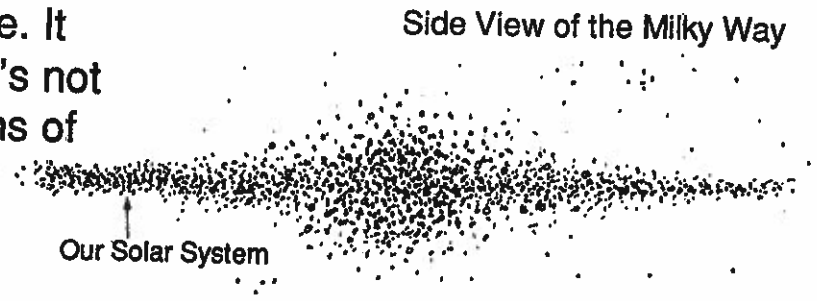


Brainwork! Which moon above would you most like to visit? Write a paragraph telling which moon you would choose and why.

Name _____ Skill: Comprehension

Beyond Our Solar System

Astronomers know that much lies beyond our solar system. In fact, in the drawing on this page our solar system is just a tiny speck in a larger group of objects in space. This larger group is called the Milky Way galaxy. The Milky Way is made up of all the stars you can see in the night sky and many more beyond those. It also contains large clouds made of gas and dust. But that's not all! Beyond our Milky Way, astronomers have seen millions of other galaxies. Each of these has billions of stars. Astronomers call space and everything in it the universe.



1. What is the name of our galaxy? _____

2. What have astronomers seen beyond our galaxy? _____

3. What is the universe? _____

4. Which contains the largest group of objects—the solar system, the universe, or the Milky Way?

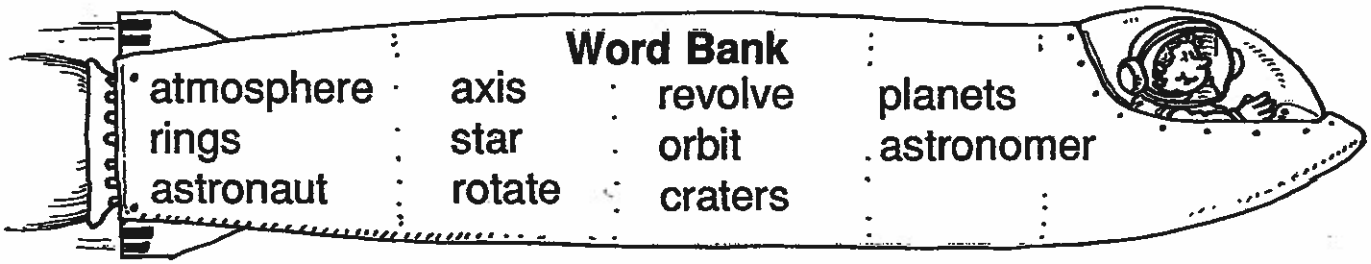
5. What two kinds of objects does the Milky Way contain? _____

Brainwork! Write a mini-book about the universe. Use the words *planet*, *solar system*, and *galaxy*.

Name _____ Skill: Vocabulary review

A Review Riddle

Find a word in the Word Bank that matches each clue below. Write the word on the blanks.



Word Bank

atmosphere	axis	revolve	planets
rings	star	orbit	astronomer
astronaut	rotate	craters	

1. person who travels in space _ _ _ _ _ _ _ _ _
2. deep holes _ _ _ _ _ _ _ _ _
3. nine worlds _ _ _ _ _ _ _ _ _
4. to spin _ _ _ _ _ _
5. to travel around _ _ _ _ _ _ _
6. scientist who studies the objects in space

   _ _ _ _ _ _ _ _ _ _ _
7. imaginary line through the center of a planet _ _ _ _
8. a planet's path around the sun _ _ _ _ _
9. ball of hot glowing gases _ _ _ _
10. Saturn, Jupiter and Uranus have these _ _ _ _ _
11. a blanket of gases _ _ _ _ _ _ _ _ _ _ _

Answer this riddle! Write the circled letters on the blanks below.

What is another name for our solar system?

8	1	4	11	3	9	2	5	7	6	10	11	9	2	5

Brainwork! Scramble the letters in each planet's name. Have a friend unscramble them.

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Label the Solar System Diagram

Read the definitions, then label the diagram below.

Definitions

Sun - The Sun is a star at the center of our Solar System.

Mercury - Mercury is the planet closest to the Sun.

Venus - Venus is the second planet from the Sun. It is the hottest planet.

Earth - Earth is the third planet from the Sun and the planet we live on.

Mars - Mars is a red planet and the fourth planet from the Sun.

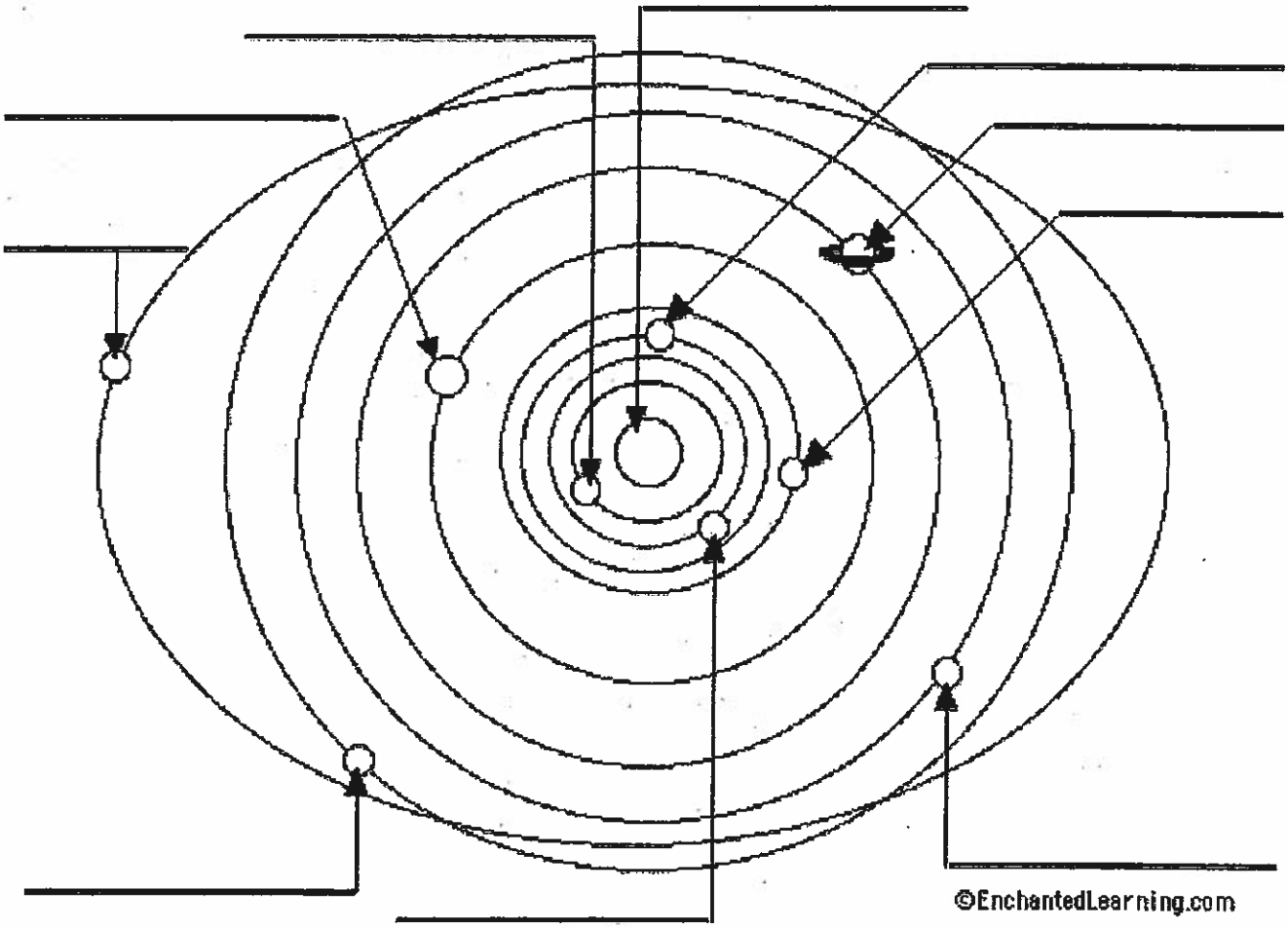
Jupiter - Jupiter is the fifth planet from the Sun. This gas giant is the largest planet.

Saturn - Saturn is the sixth planet from the Sun. This gas giant has large, beautiful rings.

Uranus - Uranus is a gas giant and is the seventh planet from the Sun.

Neptune - Neptune is a gas giant and is usually the eighth planet from the Sun.

Pluto - Pluto is a dwarf planet that is usually the farthest planet from the Sun. It is smaller than the 8 planets.

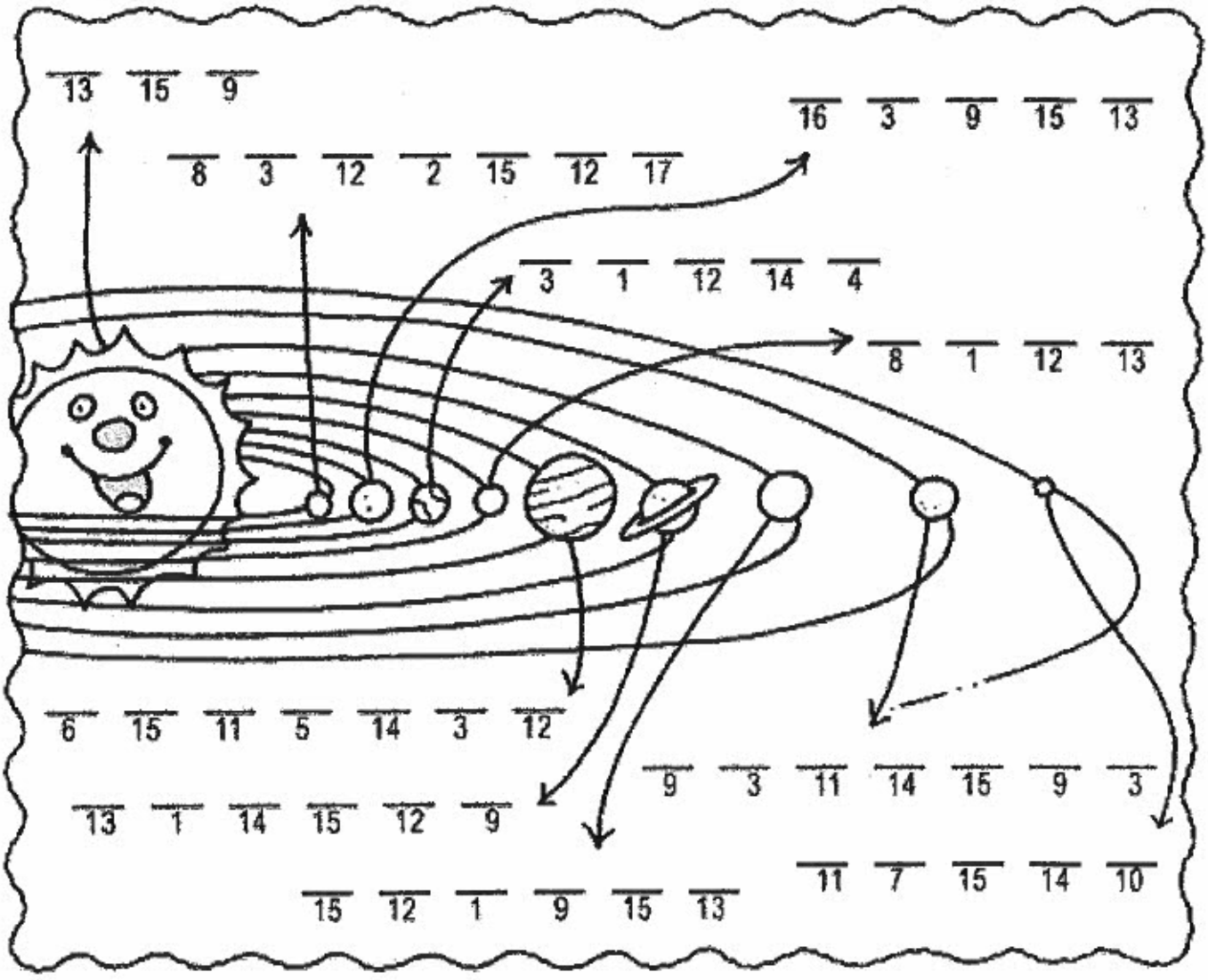


Name _____

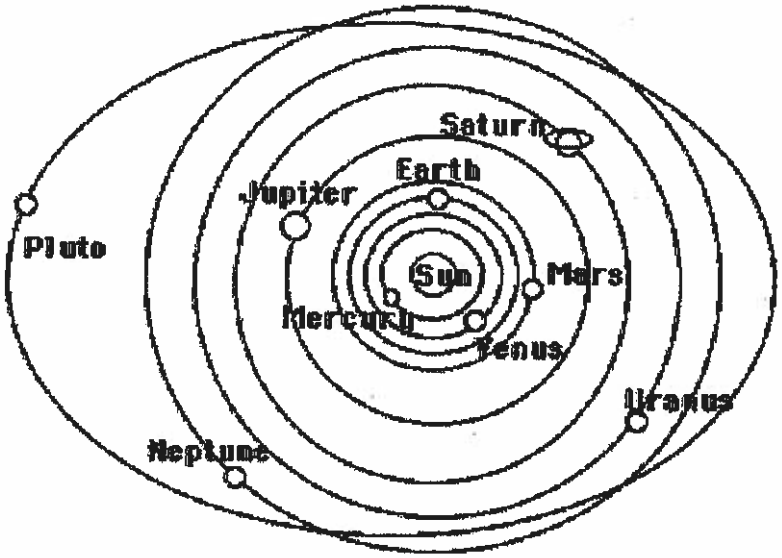
ROUND AND ROUND

Here is a picture of our solar system! Use the code below to fill in the blanks to finish the names of the items in this diagram.

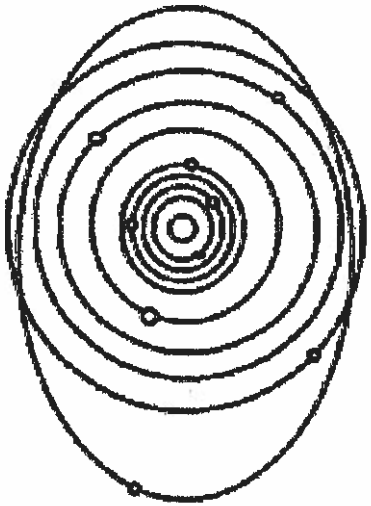
1=A	5=I	9=N	13=S
2=C	6=J	10=O	14=T
3=E	7=L	11=P	15=U
4=H	8=M	12=R	16=V
			17=Y



Our Solar System



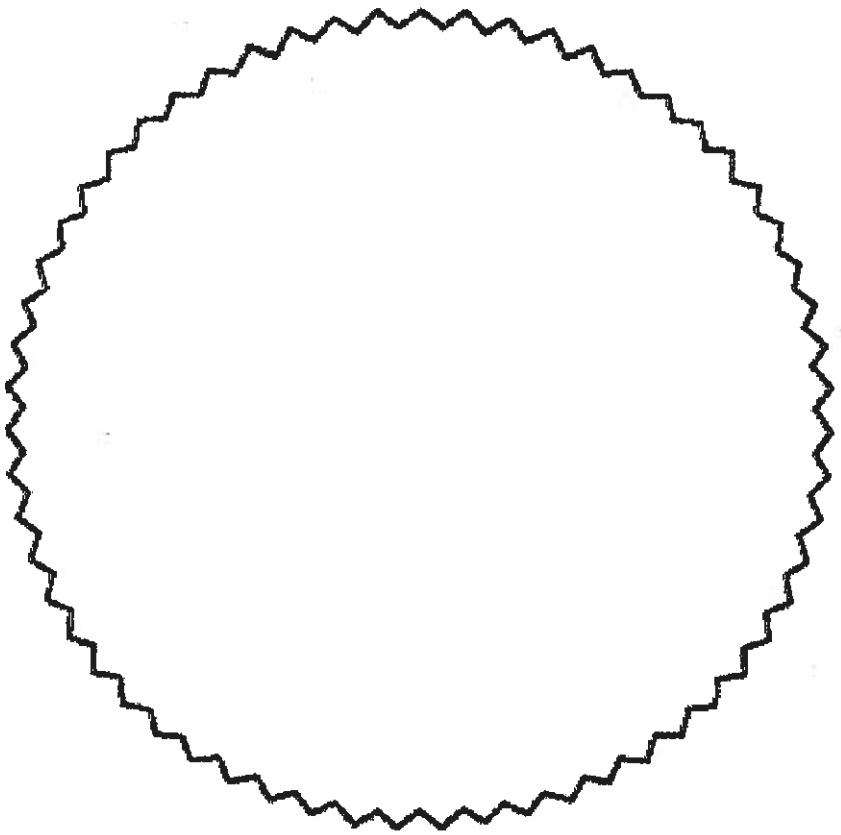
Our Solar System has eight planets (plus dwarf planets) that orbit the sun. The Earth is one of the planets.



Our Solar System

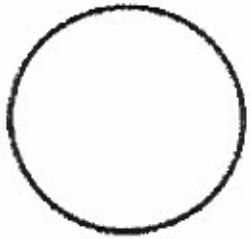
Name _____

Our Solar System: Sun



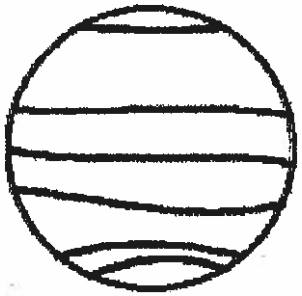
The sun is at the center of the Solar System. The sun is a star.

Our Solar System: Mercury



Mercury is the planet closest to the sun. This small, hot planet has no moons.

Our Solar System: Venus

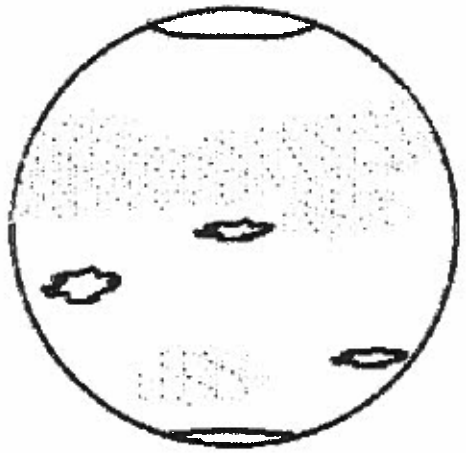


Venus is the second closest planet from the sun. Venus is the hottest planet; it has no moon.

Our Solar System: Earth

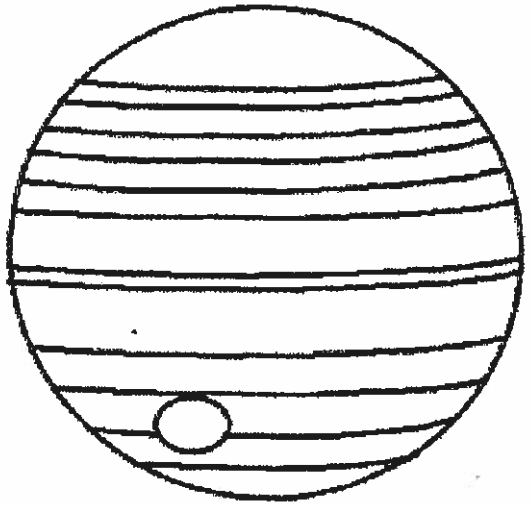
We live on the Earth, the third planet from the sun. The Earth has one moon.

Our Solar System: Mars



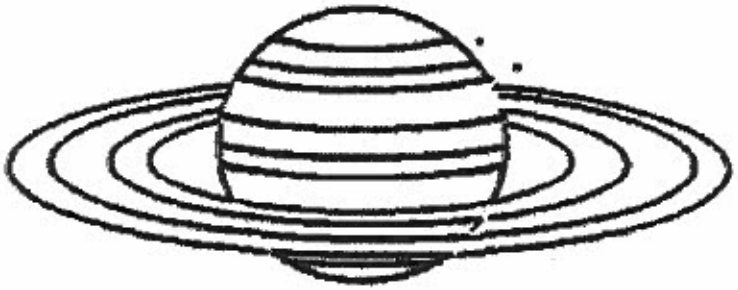
Mars is the fourth planet from the sun. Mars is a red planet with two tiny moons.

Our Solar System: Jupiter



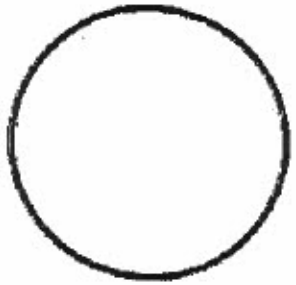
Jupiter is the fifth planet from the sun. This gas giant is the biggest planet in our Solar System. It has many moons

Our Solar System: Saturn



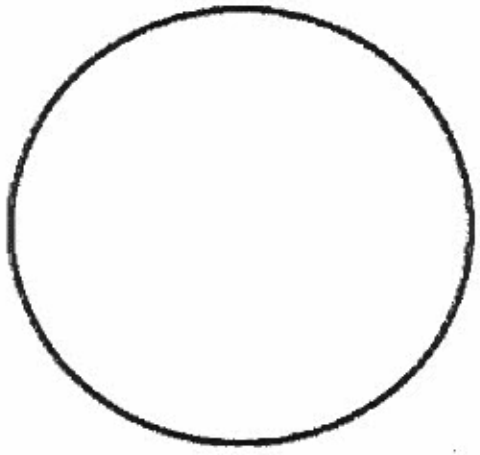
Saturn is the sixth planet from the sun. This gas giant has beautiful rings made of ice and rocks. It has many moons.

Our Solar System: Uranus



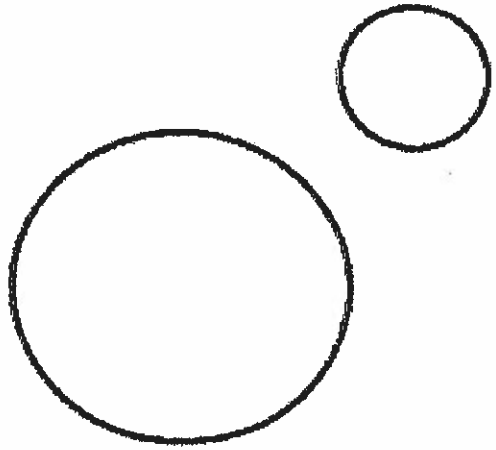
Uranus is the seventh planet from the sun. It is a light-blue gas giant with many moons.

Our Solar System: Neptune



Neptune is the eighth planet from the sun. This light-blue gas giant has many moons.

Our Solar System: Pluto



Pluto is a dwarf planet that usually orbits beyond Neptune. It is rocky and has one big moon (plus 2 tiny moons). There are many smaller dwarf planets.

Name: _____ Planet: _____ 1

My Planet Report

_____

(Write the name of your planet on this line.)

Draw a large picture of your planet. Be sure your picture includes lots of detail.
If your planet has moons, draw and label the moons in your picture.

Name: _____ Planet: _____ 2

Planet Report

_____ is the _____ planet from the sun.
(name of your planet) (1st, 2nd, 3rd, etc...)

It is one of the _____ planets because it is located
(inner or outer)

_____ the asteroid belt.
(inside or outside)

It is the _____ planet in our solar system.
(largest, 2nd largest, 3rd largest, smallest, etc...)

It takes my planet _____ to orbit the sun.
(amount of time)

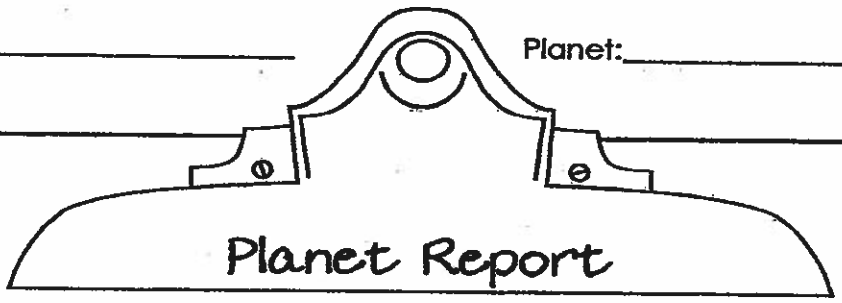
_____ has a _____ gravity than Earth.
(name of your planet) (stronger or weaker)

My planet is known for _____

_____

_____
(describe a unique feature of your planet)

Name: _____ Planet: _____ (3)



Planet Report

Can your planet be seen at night without a telescope? _____

Is your planet made of mostly gas or rock? _____

Does your planet have clouds? _____

Does your planet have rings around it? _____

Is your planet larger or smaller than Earth? _____

Descibe the temperature on your planet. Give specific numbers to tell how hot or cold the planet can be.

_____

_____

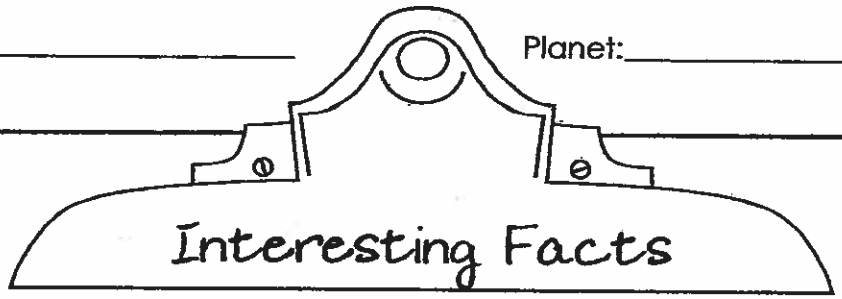
_____ (name of your planet) has _____ (number of moons) moons orbiting it.

Write the names of your planet's moons. (If your planet has dozens of moons, like Jupiter or Saturn, then just list a few of the biggest ones.)

_____

_____

Name: _____ Planet: _____ (4)



Interesting Facts

Here are five interesting facts about my planet.

1. _____

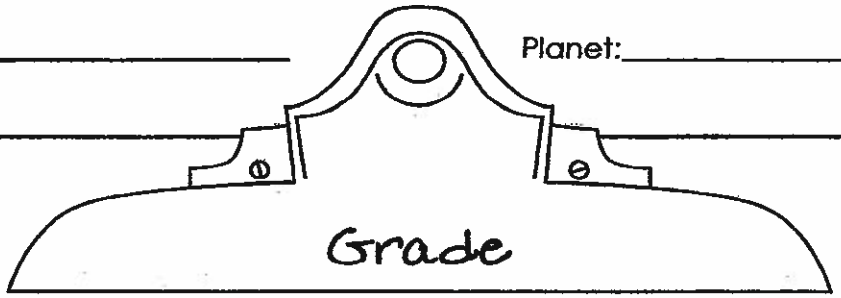
2. _____

3. _____

4. _____

5. _____

Name: _____ Planet: _____ (5)



_____ **Accuracy of Information**
All blank lines, questions, and tables in the packet are answered accurately. Student has carefully researched all necessary information. (40 points)

_____ **Picture on Cover**
The picture on the cover page is accurate and neatly drawn. It includes any applicable moons, rings, and colors. Moons are labeled. (15 points)

_____ **Interesting Facts**
All five facts are relevant, accurate, and researched. All facts are written in a way that is easy to understand. (15 points)

_____ Grammer & Spelling
The are no grammer or spelling mistakes is this report. (15 points)

_____ **Presentation**
Handwriting is clear and easy to read. Words are spelled correctly. There are no wrinkled or ripped pages in the packet. (15 points)

_____ **Total Grade (out of 100)**

Comments: _____

_____