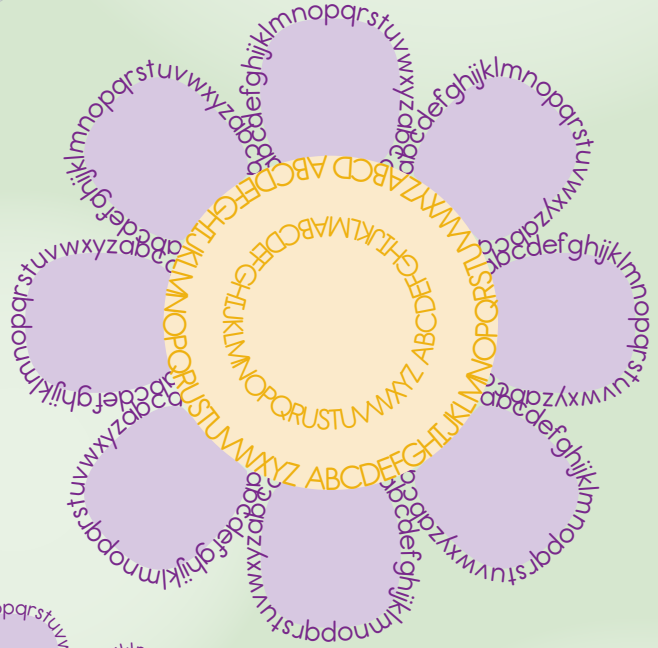
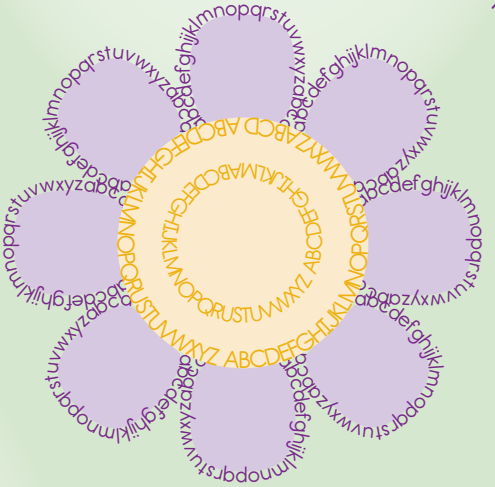
Unit 7
Skills Workbook





Core Knowledge Language Arts® • Skills Strand

GRADE 3

Core Knowledge®

Unit 7
Skills Workbook

Skills Strand

GRADE 3

Core Knowledge Language Arts®

Core Knowledge®

Unit 7

Skills Workbook

This Skills Workbook contains worksheets that accompany the lessons from the Teacher Guide for Unit 7. Each worksheet is identified by its lesson number and where it is intended to be used. For example, if there are two worksheets for Lesson 8, the first will be numbered 8.1 and the second 8.2. The Skills Workbook is a student component, which means each student should have a Skills Workbook.

Name: _____

1.1

The Sun, Earth, and Our Solar System

1. What two types of energy does the sun provide?

   A. The sun provides electrical and wind energy.

   B. The sun provides heat and light energy.

   C. The sun provides light and electrical energy.

   D. The sun provides water and heat energy.

   Page _____

2. How many days does it take for the Earth to orbit the sun?

   A. It takes about 78 days for the Earth to orbit the sun.

   B. It takes about 439 days for the Earth to orbit the sun.

   C. It takes about 365 days for the Earth to orbit the sun.

   D. It takes about 149 days for the Earth to orbit the sun.

   Page _____

3. How long does it take for the Earth to make a full rotation on its axis?

   A. It takes 24 hours for the Earth to make a full rotation on its axis.

   B. It takes 3 days for the Earth to make a full rotation on its axis.

   C. It takes 365 days for the Earth to make a full rotation on its axis.

   D. It takes 24 days for the Earth to make a full rotation on its axis.

   Page _____

4. What process creates the energy that the sun gives off?

   A. The sun's gases create the energy that the sun gives off.

   B. Light and heat from other stars create the energy that the sun gives off.

   C. Absorbing energy from the eight planets creates the energy that the sun gives off.

   D. Running into objects in space creates the energy that the sun gives off.

   Page _____

5. What is the solar system?

   _____

   _____

   _____

   Page _____

Name: _____

1.2

Take-Home Worksheet 

Dear Family Member,

Please help your child succeed in spelling by taking a few minutes each evening to review the words together. Helpful activities for your child to do include: spelling the words orally, writing sentences using the words, or simply copying the words.

Spelling Words

This week, we are reviewing all five spelling patterns for /j/ that we have already learned. On Friday, your child will be tested on these words.

Students have been assigned three Challenge Words, *answer*, *great*, and *grate*. Challenge Words are words used very often. The Challenge Words do not follow the spelling patterns for this week and need to be memorized.

The Content Word for this week is *Jupiter*. This word is directly related to the material that we are reading in *What's in Our Universe?*. The Content Word is an optional spelling word for your child. If your child would like to try it but gets it incorrect, it will not count against him or her on the test for trying. We encourage everyone to stretch themselves a bit and try to spell this world.

The spelling words, including the Challenge Words and the Content Word, are listed below:

1. jellyfish
2. germy
3. digest
4. fringe
5. nudging
6. ridge
7. exchange
8. eject
9. budget
10. lodging
11. gymnasium
12. jewel
13. bridging
14. dodge
15. average
16. fudge
17. giraffe

Challenge Word: answer

Challenge Word: great/grate

Content Word: Jupiter

Student Reader

The chapters your child will read this week in *What's in Our Universe?* include information about our solar system: the sun, Earth, our moon, the eight planets, asteroids, comets, and meteors. Be sure to ask your child each evening about what he or she is learning.

Students will take home text copies of the chapters in the reader throughout the unit. Encouraging students to read a text directly related to this domain-based unit will provide content and vocabulary reinforcement. Your child will also bring home a copy of the glossary for use in reading the text copies to family members. The bolded words on the text copies are the words found in the glossary.

Name: _____

1.3

Take-Home Worksheet 

The Sun, Earth, and Our Solar System

Look up in the sky at noon. What do you see? If it is not cloudy, you will see the sun shining brightly in the sky.

The sun provides energy—both light and heat energy. The sun's light and heat give life to plants and animals. Without the sun, Earth would be freezing cold. Have you ever wondered what the sun is made of or why it gives off so much light and heat?

You may be surprised to know that the sun is a star. It is in fact the closest star to Earth. It is made up of different, hot gases. How hot? A hot summer day on Earth is 100 degrees. On the sun, it is 10,000 degrees! The sun stays that hot all the time! The sun's gases create the light and heat energy it gives off.

Long ago, people believed that the sun moved around Earth. This seemed to make sense. Each morning at the start of the day, the sun rose in the east. At the end of the day, the sun set in the west—exactly opposite from where it had came up. To explain this change, people said the sun moved around Earth. But now we know that this is not what really happens. The sun does not move around Earth. It is Earth that moves around the sun!

The sun is in the center of a group of eight **planets**. All of these **planets**, including Earth, circle, or **orbit**, around the sun. The sun, **planets**, and other objects in space that **orbit** the sun are called the **solar system**. The word *solar* has the Latin root word *sol*, which means "the sun." Everything in the **solar system** relates to the sun.

Our **planet**, Earth, moves in two ways. We have just learned that Earth

circles around the sun. It takes about 365 days, which is one year, for Earth to **orbit** the sun.

Earth also moves by spinning, or **rotating**, on its **axis**. It is this spinning that makes day and night on Earth and the motion of the sun across the sky from sunrise to sunset. It takes one day for Earth to make one complete **rotation** on its axis. As Earth **rotates** and spins, different parts of it face the sun. When the part facing the sun gets sunlight, it is daytime on that side of Earth. The part that faces away from the sun gets no sunlight. So, on that side of Earth, it is nighttime. Did you know that when it is daytime where we live, it is nighttime on the other side of Earth?

When Earth **rotates** on its **axis**, it is **tilted**. At certain times of the year, one part of Earth is **tilted** toward the sun. The sunlight is more direct and it feels hotter. For people living on this part of Earth, it is summer. For people living on the part of Earth **tilted** away from the sun, there is less sunlight and it is winter. So, when it is summertime for us, there are people living on other parts of Earth where it is winter! So, the fact that Earth is **tilted** on its **axis** is what creates the seasons of the year.

Name: _____

2.1

The Moon

1. Describe what happens during a solar eclipse.

_____

_____

_____

Page _____

2. Describe what happens during an eclipse of the moon.

_____

_____

_____

Page _____

3. Why does the moon look different on different nights of the month?

_____

_____

_____

Page _____

4. Compare and contrast Earth's rotation around the sun and the moon's rotation around Earth.

_____

_____

_____

Pages _____

If a statement is true, write "true" on the line. If a statement is false, write "false" on the line.

5. The moon gives off light of its own just like the sun.

_____

Page _____

6. The moon orbits around Earth.

_____

Page _____

7. It takes 24 hours for the moon to orbit around Earth.

_____

Page _____

8. Solar eclipses happen much more often than eclipses of the moon.

_____

Page _____

Name: _____

Conjunction *so*

Match the sentences by writing the number of the *cause* in the blank that identifies the appropriate *effect*. Rewrite the sentences below, inserting the conjunction *so*. Remember to add correct capitalization and punctuation.

Causes	**Effects**
1. the book was very exciting	_____ we played inside
2. the puppy was very tired	_____ we helped her look for them
3. the weather was rainy	_____ it took a long nap
4. mother lost her glasses	_____ Randy read it three times

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

- **Read the two simple sentences.**
- **Decide which happened first and write the word *Cause* over top of it.**
- **Decide which happened second and write the word *Effect* over top of it.**
- **Add the conjunction *so* before the simple sentence that happens second and is the effect, join the two sentences.**
- **Then, write them as a compound sentence including the conjunction *so*.**

Cause **Effect**

Example: I forgot to clean up my room. I wasn't allowed to go out to play.

I forgot to clean up my room so I wasn't allowed to go out to play.

1. Chocolate is my favorite flavor of ice cream. I asked for it for dessert.

_____

_____

2. Tom enjoys Uncle Steve's company very much. He invited Uncle Steve to go out to a movie.

_____

_____

3. The little girl said hello. Her neighbor said hello back.

_____

_____

Name: _____

Take-Home Worksheet 

The Moon

Look up in the sky at night. What do you see? If it is not cloudy, you may be able to see the moon.

When you see the moon at night, it might look white. It might look gray or silver. Sometimes, it seems to shine and glow. But the moon does not give off light the way the sun does. The moon is a ball of rock that gives off no light of its own. It simply reflects light from the sun. That means light from the sun hits the moon and bounces off.

You already know that Earth orbits around the sun. But did you know that the moon orbits around Earth? It takes just about one month for the moon to completely circle Earth. If you look up at the night sky each night of the month, you may think that the size and shape of the moon is changing. However, the size and shape are not really changing. The moon is still a round ball. It looks different at different times of the month because of the way the light from the sun is reflected and how much of the moon we can see from Earth.

The way that Earth, the moon, and the sun move can also make other interesting things to look at in the sky. When Earth, the moon, and the sun all move together in a direct line, something called an **eclipse** can take place.

We can see two kinds of **eclipses** from Earth. One kind happens when the moon gets in between the sun and Earth. When that happens, we can't see the sun for a while. At least, we can't see part of it. We call this a solar **eclipse** or an **eclipse** of the sun.

The other kind of **eclipse**, called a lunar eclipse, also involves the sun,

the moon, and Earth. It takes place when the moon passes behind Earth and into its shadow. In the image on the next page, you can see that a shadow covers part of the moon. It is Earth's shadow that you see. Earth has blocked out the sun and left part of the moon in darkness.

Eclipses do not happen often because the sun, Earth, and the moon all have to line up just right. Solar **eclipses** can only be seen from a narrow strip of Earth at a time. While they happen once or twice a year, it is very, very rare to see one. **Eclipses** of the moon happen more often, several times each year. They can be seen from half of Earth at a time, so are more often visible.

Whether or not you can see an **eclipse** depends on where you are on Earth. You must never look directly at a solar **eclipse**. The sun is very bright and could burn your eyes. But, it is safe to look at an **eclipse** of the moon. If an **eclipse** is predicted, it is usually big news, so you will likely hear about it.

Name: _____

2.4

Take-Home Worksheet 

Practice Conjunction *so*

Match the sentences by writing the number of the *cause* in the blank that identifies the appropriate *effect*. Rewrite the sentences below, inserting the conjunction *so*. Remember to add correct capitalization and punctuation.

Causes	**Effects**	
1. the day was very hot	_____	we adopted her immediately
2. the day was very cold	_____	we bundled up in several layers of clothing
3. the puppy was shivering and afraid	_____	we asked Mom if we could go swimming at the park
4. the kitten was cute	_____	he hid behind the couch to escape the thunder

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

Name: _____

3.1

The Planets Closest to the Sun

If a statement is true, write "true" on the line. If a statement is false, write "false" on the line.

1. Venus is a good place for us to live and visit.

   _____

   Page _____

2. The planet Mars looks red because its rocks have rust in them.

   _____

   Page _____

3. It takes Mercury less time to orbit the sun than the Earth does because Mercury is much closer to the sun.

   _____

   Page _____

4. The four planets closest to the sun have a rocky and solid surface.

   _____

   Page _____

5. Write an interesting fact about Mercury, Venus, and Mars. (Do not use a fact from the earlier questions on this worksheet.)

Mercury: _____

_____

_____ Page _____

Venus: _____

_____

_____ Page _____

Mars: _____

_____

_____ Page _____

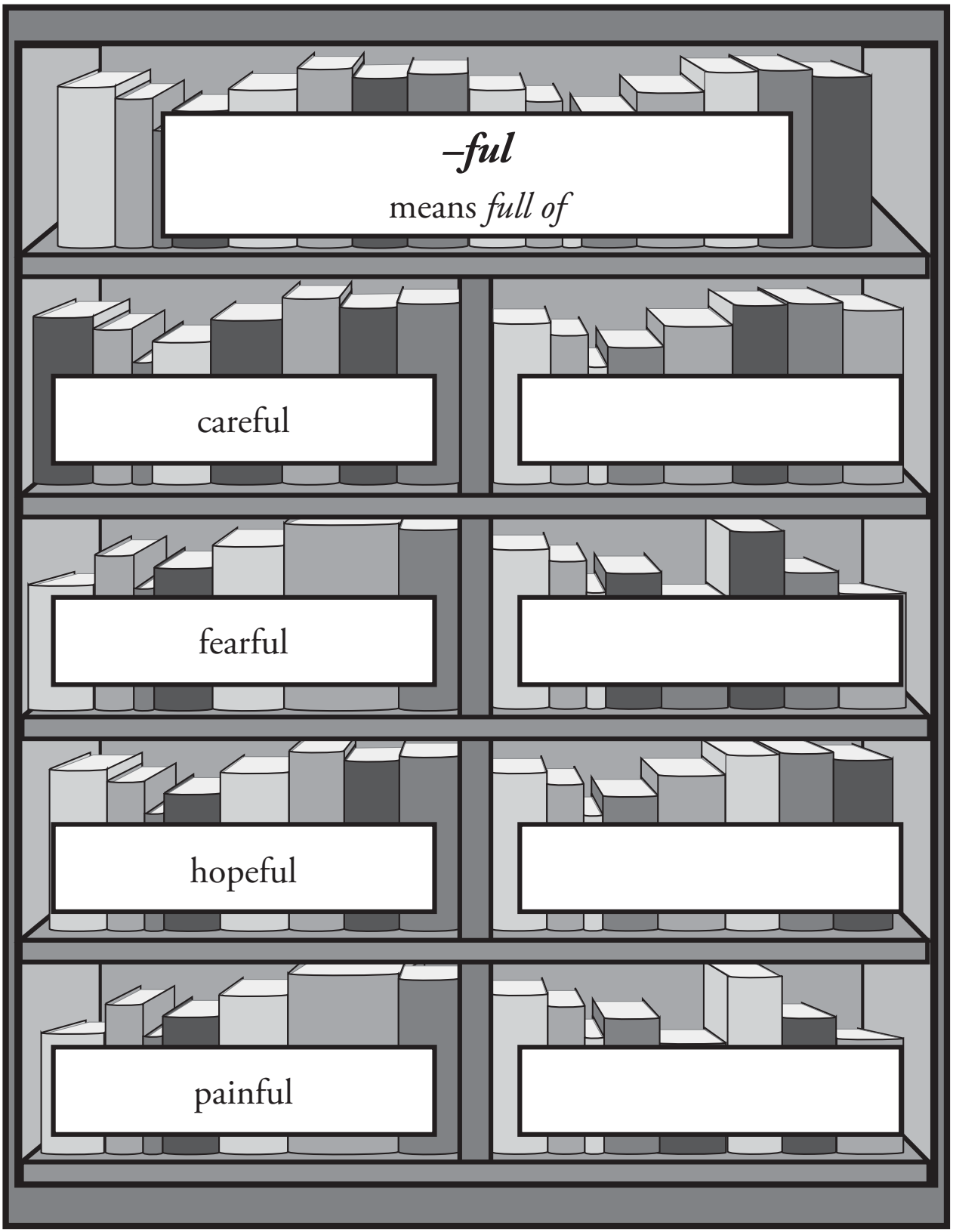
6. Compare and contrast an inner planet and our moon.

Inner Planet		**Moon**
	size?	
	surface?	
	appearance?	
	interesting fact?	

Name: _____

3.2

Word Shelf



Name: _____

3.3

–ful: Suffix Meaning "full of"

careful—(adjective) full of effort to do something correctly or safely	
fearful—(adjective) full of the feeling that something bad will happen	
hopeful—(adjective) full of the feeling of wanting something to happen and thinking it will	
painful—(adjective) full of suffering caused by injury, illness, or sadness	

Write the correct word to complete each sentence.

hopeful	careful	fearful	painful	powerful

1. I had a _____ blister on my foot from walking a long distance in my new shoes.

2. Grandma told us to be _____ when we walked on the icy sidewalk so we wouldn't fall.

3. The _____ kitten hid under the couch when the thunderstorm came through with lots of noises and flashes.

4. The _____ motor in the boat allowed the boat to move quickly even with so many people in it.

5. Write your own sentence using the one word left in the box.

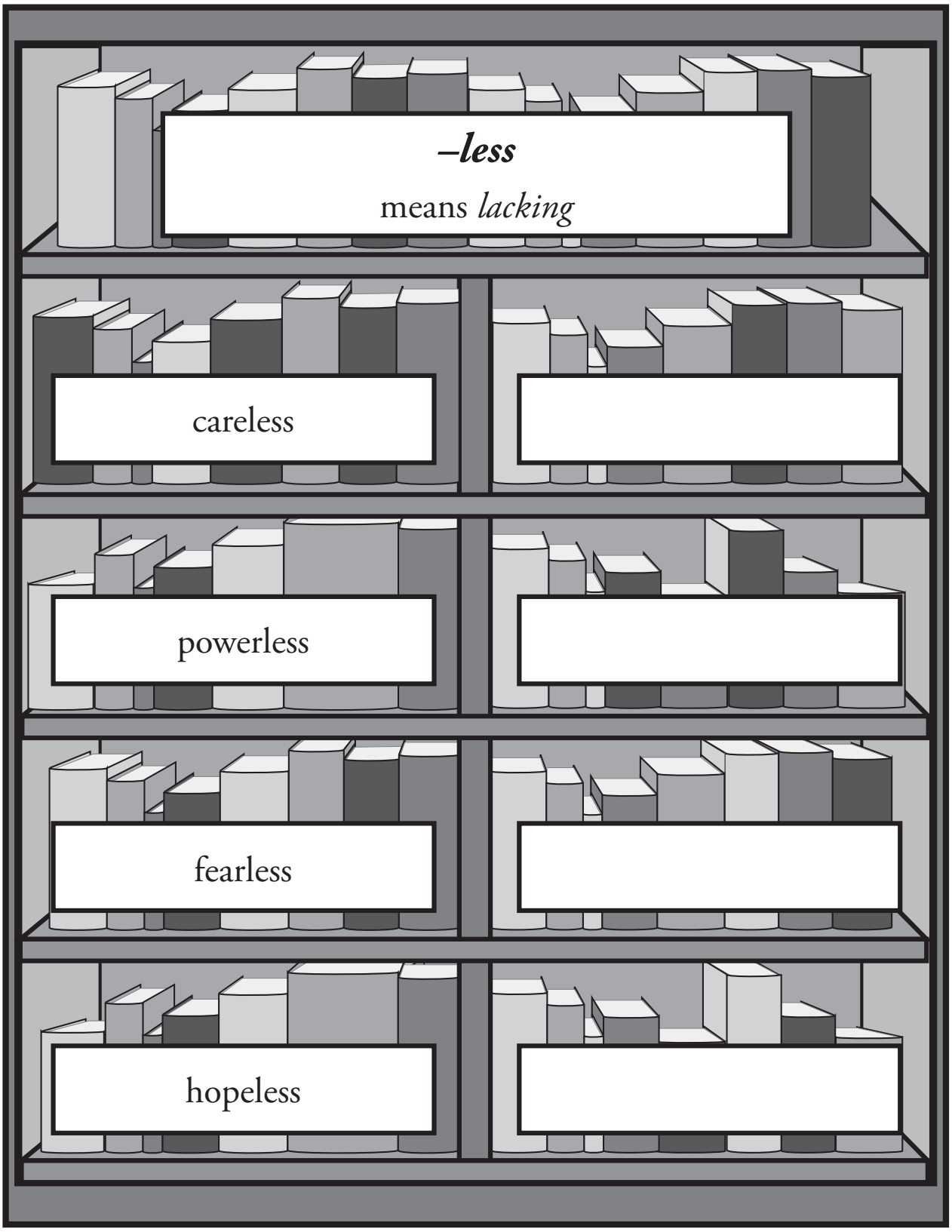
_____

_____

Name: _____

3.4

Word Shelf



Name: _____

–less: Suffix Meaning "lacking"

careless—(adjective) lacking the effort to do something correctly or safely	
powerless—(adjective) lacking the strength or authority to do something	
fearless—(adjective) lacking the feeling that something bad will happen	
hopeless—(adjective) lacking the feeling of wanting something to happen and thinking it will	

Write the correct word to complete each sentence.

powerless	careless	painless	hopeless	fearless

1. He smiled and had a _____ look in his eye and he climbed the ladder up to the high dive platform for the first time.

2. Steven made a _____ mistake on his math test because he didn't check over his answers before turning in the test.

3. Katie had the _____ thought that she would never finish writing her paper in time for the due date.

4. The _____ lawn mower needed more gas to start up again.

Write your own sentence using the one word left in the box.

_____

_____

Name: _____

3.6

Build Sentences with the Conjunction *so*

Add adjectives and adverbs to the first set of rows. Add simple sentences to the second set of rows to answer the question *what happened because*. Choose from your list to create two new, more interesting sentences using the conjunction *so* to connect the two simple sentences.

Starter Sentence: **The girl sang.**			
Adjectives to describe **the girl**	Adverbs to describe **how**	Adverbs to describe **when**	Adverbs to describe **where**
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.
Simple sentences that answer the question, "**What happened because the girl sang?**"			
1.			
2.			
3.			
4.			

New sentences:

1. _____

_____

2. _____

_____

Starter Sentence: **My brother jumped.**			
Adjectives to describe **my brother**	Adverbs to describe **how**	Adverbs to describe **when**	Adverbs to describe **where**
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.
Simple sentences that answer the question, **"What happened because my brother jumped?"**			
1.			
2.			
3.			
4.			

New sentences:

1. _____

_____

2. _____

_____

Name: _____

3.7

Blank Busters

jellyfish	germy	digest	fringe
nudging	ridge	exchange	eject
budget	lodging	gymnasium	jewel
bridging	dodge	average	fudge
giraffe			

Challenge Word: answer
Challenge Word: great/grate
Content Word: Jupiter

Fill in the blanks in the sentences below with one of the spelling words in the chart. Only if needed, add a suffix to the end of a word in order for the sentence to make sense: *–s, –ed, –ing, –er,* or *–ly*.

1. A stained and dirty kitchen sink is _____ than a clean one.

2. The stained sink was dirty and _____.

3. The normal or _____ size of _____ in the ocean is about five inches.

4. The long-necked _____ at the zoo looks like a giant to a short child.

5. My stomach is _____ the yummy _____ that my grandmother made.

6. In the school's _____ students made a huge replica of the planets in our solar system and our class made _____.

7. The _____ around the collar of your jacket looks just _____.

8. My little brother kept _____ me with his elbow so I would look at all of the sparkly _____ in the glass case.

9. Our group was _____ from the game because the referee said we were cheating.

10. Asking questions and _____ them are opposites.

Write three sentences using spelling words of your choice that were not used in the first ten sentences. Make sure to use correct capitalization and punctuation. You may use the Challenge Words or Content Word in your sentences.

1. _____

_____

2. _____

_____

3. _____

_____

Name: _____

The Planets Closest to the Sun: Mercury, Venus, Earth, and Mars

Our planet Earth is one of eight planets in our solar system that orbit around the sun. The other planets are Mercury, Venus, Mars, Jupiter, Saturn, Uranus, and Neptune. People have been looking at the planets for thousands of years. People from Mesopotamia, the Greeks, Mayans, Incas, and Aztecs were all interested in the planets. They used just their **naked eye** to study the planets. Now, we have telescopes and other tools that help us get a better look at the planets.

The four planets closest to the sun—Mercury, Venus, Earth, and Mars—are small planets. These planets have a rocky, or solid, surface.

Mercury and Venus are closer to the sun than Earth. The other planets are farther away.

Earth needs 365 days to make one orbit around the sun. That is the length of one year on Earth.

The closer a planet is to the sun, the less time it needs to make an orbit around the sun. Mercury is the closest planet to the sun. It needs just 88 days to make one orbit. Venus is the next closest to the sun. It needs just 225 days to make an orbit. The planets that are farther away take much longer. It takes Neptune 165 years to orbit the sun!

Besides being closest to the sun, Mercury is the smallest of all the planets. The English name for the planet comes from the Romans. They named the planet after the Roman god Mercury. The Greek name for this same god is Hermes.

Venus is the second planet from the sun and is closest to Earth. This planet was named after the Roman goddess of love. For a long time, scientists thought that Venus might be a lot like Earth. After all, it is close to Earth. It is about the same size as Earth and it is covered with clouds, like Earth. But this idea turned out to be wrong, too. We know now that Venus and Earth are different in lots of ways.

Scientists had to change their ideas to fit the new facts. They have now concluded that Venus is much hotter than Earth. It would not be a good place for us to live or even visit.

Mars is the fourth planet from the sun. It is named after the Roman god of war. When you look at Mars in the night sky, it looks quite red. This is because the rocks on Mars contain rust.

Many space **probes** and robots have landed on Mars. They have taken photographs and also dug up rocks.

One **probe** that went to Mars not long ago found some ice. That was big news. Ice is frozen water. If there is water on Mars, there might be life. Some experts argue that nothing could live on Mars. They say it is too cold and too dry. Others think there might be life on Mars. They think there might be something alive down under the rocks. Still others think there might have been life on Mars at one time but there isn't any now.

Name: _____

4.1

The Outer Planets

1. The planets below are in the wrong order. Use the numbers 1–8 to put them in the right order from closest to the sun to farthest away from the sun.

A. ____ Mars
B. ____ Neptune
C. ____ Venus
D. ____ Mercury
E. ____ Uranus
F. ____ Saturn
G. ____ Earth
H. ____ Jupiter

Page _____

2. Which planet is the only one that cannot be seen from Earth with the naked eye?

B. Neptune is the only one that cannot be seen with the naked eye.

C. Uranus is the only one that cannot be seen with the naked eye.

D. Jupiter is the only one that cannot be seen with the naked eye.

E. Saturn is the only one that cannot be seen with the naked eye.

Page _____

3. What feature is the planet Saturn most known for?

_____

_____

Page _____

4. Out of all eight planets, which one is the largest?

   F. Mercury is the largest of all eight planets.

   G. Jupiter is the largest of all eight planets.

   H. Saturn is the largest of all eight planets.

   I. Neptune is the largest of all eight planets.

   Page _____

5. Jupiter is made up mostly of a gas that is the most common gas in the universe. What type of gas is it?

   _____

   _____

   Page _____

6. Choose an inner planet (Mercury, Venus, Earth, Mars) and compare and contrast it with an outer planet. (Jupiter, Saturn, Uranus, Neptune)

Inner Planet		Outer Planet
	size?	
	rings?	
	surface?	
	distance from Earth?	
	interesting fact?	

Name: _____

4.2

Conjunctions *and* and *or*

Read both sentences in each item carefully, looking closely at the words in the sentence. Choose and write one conjunction (*and*, *or*) in the blank so that the sentence makes sense.

1. Saturday is going to be a busy day full of fun things to do. First, Mother plans to take all of us to the library _____ then we will go to get ice cream at my favorite ice cream shop. YUM!

2. My little sister had forgotten to make her bed. Father said to her, "Sandy, you must make your bed _____ you will not be able to watch TV tonight."

Read both sentences in each item carefully, looking closely at the conjunction *and* or *or* and other clue words in the sentence. Circle the choice that uses the conjunction correctly so that the sentence makes sense.

3. A. My sister wants to go shopping and my brother wants to go too.
   B. My sister wants to go shopping or my brother wants to go too.

4. A. Sally could wake up early in the morning or she could sleep late today.
   B. Sally could wake up early in the morning and she could sleep late today.

5. A. Pete likes the color orange or he also likes the color blue.
   B. Pete likes the color orange and he also likes the color blue.

6. A. Aunt Dolly should go to the gas station or she will run out of gas.
   B. Aunt Dolly should go to the gas station and she will run out of gas.

Choose the correct answer, looking closely at the conjunctions *and* or *or*.

7. A. Tim is going to play board games or he is going to play basketball this weekend. He can't decide which one.
   B. Tim is going to play board games and he is going to play basketball this weekend. He can't decide which one.

8. A. She will feel better or she will still be sick in the morning.
   B. She will feel better and she will still be sick in the morning

Write compound sentences using the conjunctions *and* and *or*.

9. (*and*)

_____

_____

_____

10. (*or*)

_____

_____

_____

Name: _____

4.3

Suffixes *–ful* and *–less*

Write the correct suffix in the blank to complete the sentence. Explain why the suffix you added makes the correct word for the sentence.

1. She had a hope_____(–ful, –less)expression on her face as she checked the weather and saw that the rain would stop before the outdoor concert that night.

   Why did you choose your answer? _____

   _____

2. With a fear_____(*–ful, –less*)look in his eyes, Jack touched the snake that the zookeeper brought around to the group even though he was terrified of snakes.

   Why did you choose your answer? _____

   _____

3. Her last visit to the doctor was pain_____(*–ful, –less*)because she felt great and did not need any shots or medicine.

   Why did you choose your answer? _____

   _____

4. He used a care_____and steady hand to paint the details on the outside of the wooden box so the design would look perfect.
(*–ful, –less*)

Why did you choose your answer? _____

_____

5. The power_____camera needed to have a charged battery to start back up again.
(*–ful, –less*)

Why did you choose your answer? _____

_____

6. The hope_____search for Grandpa's missing glasses took all morning and finally stopped when he said he would just go the eye doctor to get a new pair.
(–ful, –less)

Why did you choose your answer? _____

_____

7. She had the fear_____thought that during her next swim practice, she would try to swim the entire length of the pool without stopping.
(–ful, –less)

Why did you choose your answer? _____

_____

Name: _____

Word Sort

Identify the headers. Read the words in the box and circle the vowels that have the /j/ sound. Write the words under each header that match the header's spelling pattern.

'j' > /j/	**'dge' > /j/**	**'g' > /j/**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

'dg' > /j/	**'ge' > /j/**
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

budge	game	beige	cabbage	great
hedging	Jill	gemstones	gadget	botch
cage	gerbil	abridging	gallery	tonnage
gypsy	gelcap	ghastly	ajar	enjoy
appendage	smudge	adjective	injury	judgment
porridge	wedged	giant	pledge	fudge

Name: _____

The Outer Planets: Jupiter, Saturn, Uranus, and Neptune

Do you remember the names of the four planets closest to the sun? If you said, "Mercury, Venus, Earth, and Mars," you are right! There are four more planets called the outer planets. So there are eight planets in all.

Jupiter is the very next planet after Mars. After Jupiter come Saturn, Uranus, and Neptune in that order. Neptune is the planet that is farthest from the sun. Uranus is difficult to see with the naked eye and Neptune is impossible to see without help. Neptune is only visible using a telescope.

The outer planets are very large and are mostly made of gas. Scientists often call these planets **gas giants**. Of all the planets, Jupiter is the largest: 1,300 Earths could fit inside Jupiter! It is made mostly of **hydrogen** gas, the most common gas in the universe.

The gases on Jupiter seem to be blowing around. In the image of Jupiter on the next page, you can see the giant, red spot. It looks like an eye! Experts think it is a big wind storm, like a huge hurricane.

Jupiter also has 63 known moons that orbit it. Some of these moons are very large, even larger than Earth's moon.

Saturn is known for its many large rings that orbit the planet. These rings are made of ice and dust. The ice reflects light and makes the rings glow. Saturn also has many moons that orbit it.

The last two planets are Uranus and Neptune. These planets are the farthest from the sun so they are very cold. Uranus and Neptune also have rings, but they aren't easily seen like Saturn's. Both planets also have moons.

So now you know the names of all eight planets. Try asking your the adults in your family how many planets there are. They may tell you that there are nine planets. When the adults in your family were in school, people said that there was a ninth planet called Pluto. But in 2006, scientists decided that Pluto did not have all of the characteristics needed to be classified as a planet. They removed Pluto's name from the list of planets, so now there are only eight planets.

Name: _____

5.1

Spelling Assessment

As your teacher calls out the words, write them under the correct header.

‘j’ > /j/	‘dge’ > /j/	‘g’ > /j/
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

‘dg’ > /j/	‘ge’ > /j/
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Challenge Word: _____ **Challenge Word**: _____

Challenge Word: _____ **Content Word**: _____

Dictacted Sentences

1. _____

_____

_____

_____

2. _____

_____

_____

_____

Name: _____

5.2

Asteroids, Comets, and Meteors

1. Where in the solar system is the asteroid belt located?

   A. The asteroid belt is located right next to the sun.

   B. The asteroid belt is located between the two outermost planets.

   C. The asteroid belt is located between a small, red planet and the largest planet in the solar system.

   D. The asteroid belt is located between the largest planet in the solar system and the planet known for its rings.

   Page _____

2. How often can Halley's Comet be seen from Earth with the naked eye?

   A. Halley's Comet can be seen every 56 years.

   B. Halley's Comet can be seen every 89 years.

   C. Halley's Comet can be seen every 20 years.

   D. Halley's Comet can be seen every 76 years.

   Page _____

3. What is another name for a meteor as it falls to Earth?

   _____

   Page _____

4. Compare and contrast comets and asteroids.

Comets		Asteroids
	size?	
	structure?	
	orbit?	

5. What are the differences between meteoroids and meteors?

_____

_____

Page _____

6. Compare and contrast asteroids and planets.

Asteroids		Planets
	size?	
	structure?	
	orbit?	

Name: _____

5.3

Dictionary Skills

Use the following portion of a dictionary page to answer the questions below.

jester	**jiffy**
jet 1. *noun* A stream of liquid forced out a small opening. 2. *noun* A plane powered by jet engines. 3. *verb* To travel by jet.	
jewel 1. *noun* A gem used in jewelry. 2. *noun* A thing greatly valued.	

1. What are the two guide words on the page? _____

2. What are the two entry words on the page? _____

3. How many definitions are there for *jet*? _____

4. Would the word *jest* be on this page? _____

5. Circle the words that would come before *jester* from the following list: *jeep*, *jigsaw*, *jettison*

6. Which definition of *jet* matches the use of the word in the sentence:

When you shake up a soda and open it, a *jet* of soda will shoot out of the can opening. _____

What part of speech is *jet* in this sentence? _____

7. Choose one of the two remaining definitions for *jet* and write a sentence using *jet* in that form. _____

_____

_____

8. Which definition of *jewel* matches the use of the word in the sentence:

The smallest puppy in the litter was the *jewel* of the bunch.

_____

What part of speech is *jewel* in this sentence? _____

9. Write a sentence using definition 1 for *jewel*. _____

_____

_____

Name: _____

6.1

Galaxies and Stars

If a statement is true, write "true" on the line. If a statement is false, write "false" on the line.

1. The stars do not look like the sun because they are all a lot smaller than the sun. _____

   Page _____

2. Other stars revolve around our sun. _____

   Page _____

3. Other stars are balls of hot gas, just like the sun. _____

   Page _____

4. The Greek root *astron* means sky._____

   Page _____

5. Our solar system is in the Andromeda Galaxy. _____

   Page _____

Answer the following question in complete sentences on the lines below.

6. What are some ways that stars can be different?

_____

_____

_____

_____

_____

_____

_____

_____

Page(s) _____

7. Compare and contrast a solar system and a galaxy.

Solar System		**Galaxy**
	size?	
	location?	
	characteristics?	

Name: _____

6.2

Take-Home Worksheet 

Dear Family Member,

Please help your child succeed in spelling by taking a few minutes each evening to review the words together. Helpful activities for your child to do include: spelling the words orally, writing sentences using the words, or simply copying the words.

Spelling Words

This week, we are reviewing all four spelling patterns for /n/ that we have already learned. On Friday, your child will be assessed on these words.

Students have been assigned three Challenge Words, *very*, *vary*, and *enough*. Challenge Words are words used very often. The Challenge Words do not follow the spelling patterns for this week and need to be memorized.

The Content Word for this week is *astronomer*. This word is directly related to the material that we are reading in *What's in Our Universe?*. The Content Word is an optional spelling word for your child. If your child would like to try it but gets it incorrect, it will not count against him or her on the test for trying. We encourage everyone to stretch themselves a bit and try to spell this world.

The spelling words, including the Challenge Words and the Content Word, are listed below:

1. gnat
2. skinny
3. knotted
4. flannel
5. knighted
6. nearby
7. understand
8. design
9. knobby
10. manned
11. knowledge
12. channel
13. annoy
14. gnarly
15. knuckle
16. campaign

Challenge Word: very/vary

Challenge Word: enough

Content Word: astronomer

Student Reader

The chapters your child will read this week in *What's in Our Universe?* include information about our solar system: galaxies, stars, and constellations. Students will also read chapters about exploring space, walking on the moon, and what it's like in space. Be sure to ask your child each evening about what he or she is learning.

Students will take home text copies of the chapters in the reader throughout the unit. Encouraging students to read a text directly related to this domain-based unit will provide content and vocabulary reinforcement. Please remind your child that the glossary can be used for finding the meaning of the bolded words.

Name: _____

Asteroids, Comets, and Meteors

There are other objects that orbit the sun in the solar system besides the planets. Millions of space rocks called **asteroids** also orbit the sun. **Asteroids** are made of rock, metal, and sometimes ice. Many **asteroids** are found orbiting the sun between the planets Mars and Jupiter. They cluster together in a shape like a belt as they orbit the sun. This part of the solar system is called the **asteroid belt**.

Comets also orbit the sun. **Comets** are made mostly of ice and dust. When a **comet** gets close to the sun, the sun's heat causes some of the **comet** to change into a gas. This gas streams off the end of the **comet** like a tail.

The most famous **comet** is **Halley's Comet**. It is named for the British scientist Edmund Halley who first discovered it. **Halley's Comet** is visible from Earth with the naked eye every 76 years. It was last seen in 1986. Can you figure out when it will be seen again?

Other kinds of space rocks called **meteoroids** are also found throughout the solar system. When a **meteoroid** enters Earth's **atmosphere**, we call it a **meteor**. Small pieces of the **meteor** burn brightly and look like a white trail across the sky when viewed from Earth. Sometimes people call this a "shooting star." Have you ever seen one? A **meteor** "shower" is when many **meteors** can be seen falling in the sky on the same night. Sometimes they last over several nights. It's an amazing space show!

If a **meteor** doesn't fully burn up in the **atmosphere**, it falls to Earth and can make a large hole called a crater. Pieces of a meteor found on the ground are **meteorites**.

Name: _____

6.4

Take-Home Worksheet 

Galaxies and Stars

Look up in the sky at night. What do you see besides the moon? If it is not cloudy, you may be able to see lots of stars glittering in the sky.

Remember that the sun is also a star. The stars in the night sky do not look like the sun. They do not look as big or as bright. But they are, in fact, very much alike. The stars in the night sky are big balls of hot gas, just like the sun.

So why don't they look the same? The night stars are much, much farther away from Earth than the sun. That is why they look like tiny specks of light. If we could get close to the stars, they would look bigger, brighter, and more like the sun. But the stars we see at night are so far away that no one from Earth has ever been able to get close to them.

Scientists who study the stars and outer space are called **astronomers**. The Greek root word *astron* means star. The prefix *astro* is used in many other English words.

All stars are big balls of hot gas, but **astronomers** have discovered that stars differ in many ways. Stars can be different sizes and colors. Some stars are closer to Earth than others and some stars are hotter than others. Stars that are the hottest and closest to Earth appear brighter than other stars.

Astronomers also discovered that stars cluster together in large groups. A large group of stars that cluster together in one area is called a **galaxy**. There are **billions** and **billions** of stars in one **galaxy**. That's a lot of stars!

The **galaxy** to which our sun and solar system belong is called the **Milky Way Galaxy**. It has a spiral shape when viewed from space. From

Earth, it looks like a "milky" band of white light.

The nearest spiral galaxy to the **Milky Way Galaxy** is called the **Andromeda Galaxy**. It is **billions** and **billions** of miles from the **Milky Way Galaxy**. There's that number **billions** again. You have probably heard of a million before. A million is a huge number. So what's a **billion**? It's one thousand million! It is safe to say that the **Andromeda Galaxy** is a long, long, long way away! Even so, it is sometimes possible to see the **Andromeda Galaxy** at night.

Scientists think there are **billions** of **galaxies** in the universe. There's that number **billions** again. There are **billions** of stars in each **galaxy** and **billions** of **galaxies** in the universe—that is almost more than you can think about!

Name: _____

7.1

Constellations

1. How many constellations can be seen in the night sky?

   A. 40 constellations can be seen in the night sky.

   B. 64 constellations can be seen in the night sky.

   C. 88 constellations can be seen in the night sky.

   D. 48 constellations can be seen in the night sky.

   Page _____

2. Why might the stars in constellations look brighter than other stars?

   A. The stars look brighter because they are closer to the Earth.

   B. The stars look brighter because they are reflecting light of other stars.

   C. The stars look brighter because they are hotter than other stars.

   D. Both A and C

3. What is another name for the constellation Ursa Major?

   _____

   Page _____

4. What group of stars is within the constellation Ursa Major?

   A. The Little Dipper is within the constellation Ursa Major.

   B. The Big Dipper is within the constellation Ursa Major.

   C. Ursa Minor is within the constellation Ursa Major.

   D. Polaris is within the constellation Ursa Major.

   Page _____

5. Why is Polaris different from other stars in the sky?

   A. It is part of the Big Dipper.

   B. It never stays in the same place.

   C. It is not really a star.

   D. It stays in the same place all year.

   Page _____

6. Pretend you are outside on a clear night. Describe the steps you would take to locate Polaris.

   _____

   _____

   _____

   _____

   _____

   Page _____

Name: _____

7.2

Practice Conjunction *so*

Create an *Effect* to go with the *Cause* listed below, adding the conjunction *so*, to make a compound sentence. Draw two lines under *so*.

1. Today is Saturday _____

_____

_____

_____.

2. There is no school in summer _____

_____

_____

_____.

3. The merry go round was lots of fun _____

_____

_____

_____.

4. Pink cotton candy is my favorite flavor _____

_____

_____

_____.

Create a *Cause* to go with the *Effect* listed below, adding the conjunction *so*, to make a compound sentence. Draw two lines under *so*.

1. _____

_____

_____ the leaves dropped off of the trees.

2. _____

_____

_____ we opened presents.

3. _____

_____

_____ Mother ran to answer the phone.

4. _____

_____

_____ Tom put his foot on the brake and stopped the car.

Name: _____

7.3

Write a Response to "The Moon"

Reading Excerpt from "The Moon"

From pages 20–21 of "The Moon"

We can see two kinds of eclipses from Earth. One kind happens when the moon gets in between the sun and Earth. When that happens, we can't see the sun for a while. At least, we can't see part of it. We call this a solar eclipse or an eclipse of the sun.

The other kind of eclipse, called a lunar eclipse, also involves the sun, the moon, and Earth. It takes place when the moon passes behind Earth and into its shadow. In the image on the next page, you can see that a shadow covers part of the moon. It is Earth's shadow that you see. Earth has blocked out the sun and left part of the moon in darkness.

Eclipses do not happen often because the sun, Earth, and the moon all have to line up just right. Solar eclipses can only be seen from a narrow strip of Earth at a time. While they happen once or twice a year, it is very, very rare to see one. Eclipses of the moon happen more often, several times each year. They can be seen from half of Earth at a time, so are more often visible.

Whether or not you can see an eclipse depends on where you are on Earth. You must never look directly at a solar eclipse. The sun is very bright and could burn your eyes. But it is safe to look at an eclipse of the moon. If an eclipse is predicted, it is usually big news, so you will likely hear about it.

Writing Prompt:

Explain how the two kinds of eclipses are the same and how they are different.

Name: _____

Constellations

Go outside one night and look at the stars. Of the billions of stars in our galaxy, it is possible to see only 2,000 with the naked eye. When you first look at them, you might not see much. They might look like just a bunch of tiny dots.

Look a little closer. You will see that some stars shine more brightly than others. Focus on the bright stars. Which ones really jump out at you?

Then, focus on the spaces in between the bright stars. Ask yourself, "What would it look like if I drew lines from one bright star to the next? What would it look like if I were to connect the dots? Would I see any shapes? Would I see any patterns?"

Since ancient times, people have been studying the stars. When ancient people looked at the stars, some seemed to be closer together and formed patterns.

One of the first people to describe these star patterns, called constellations, was a man named Ptolemy [TO-lə-mee]. He picked out the brightest stars and traced lines from one star to the next. He saw all types of shapes and patterns. One looked like a bull. He saw another that looked like a crab. A third looked like a bear. In all, he found 48 constellations. Much later, 40 more constellations were added to Ptolemy's list. Today, astronomers say there are 88 constellations that can be seen in the night sky.

On the next page is a drawing of a **constellation** that Ptolemy described. It is called **Ursa Major** or Big Bear. The white dots or circles

stand for the stars in the **constellation**. The dotted lines connect the stars and trace the pattern so you can see the shape. Do you see a Big Bear in the pattern? It does not look exactly like a real bear. So, you may need to **imagine** that it looks like a bear. Hint: its head is to the left with its nose being the star that is on the far left.

Within **Ursa Major**, there are seven very bright stars that form another small group of stars called the Big Dipper. Look at the image at the top of the next page. Can you see why it is called the Big Dipper? When you trace a line from star to star, the shape looks like a dipper. A dipper is like a ladle you can use to scoop something into a bowl. The stars on the left look like the handle. The stars on the right look like the scoop.

Ptolemy also described another **constellation** called **Ursa Minor** or Little Bear. This **constellation** is also made up of seven stars. In the image on the bottom of the next page, the seven dots stand for the stars. An artist has added a drawing of a bear to help you better **imagine** how the star pattern looks like a bear.

Ursa Minor is also called the Little Dipper. The brightest star at the end of the handle is called **Polaris**. Can you see it? **Polaris** stays in the same place in the night sky all year long. (Other stars are found in different places in the sky at different times of the year.) **Polaris's** place in the sky is almost directly over the North Pole of Earth. By finding **Polaris**, also called the North Star, you can find the direction north and the other directions. In ancient times, sailors and explorers used this star to find their way when they traveled.

Try to find **Polaris** the next time you look at the night sky. Start by first looking for the Big Dipper because it is easier to find. Then, find the two 'pointer' stars at the edge of the Big Dipper's scoop. Then, pretend there is a long arrow pointing the same way as the pointer stars. The first star you will see at the end of the arrow is **Polaris**.

Name: _____

8.1

Exploring Space

1. What did Galileo discover with his telescope?

   A. Galileo discovered Mars with his telescope.

   B. Galileo discovered Jupiter with his telescope.

   C. Galileo discovered four of Jupiter's moons with his telescope.

   D. Galileo discovered the Andromeda Galaxy with his telescope.

   Page _____

2. What is the Hubble Telescope?

   A. It is a telescope in an observatory in Texas.

   B. It is a telescope launched into space by NASA.

   C. It is Galileo's first telescope.

   D. It is a large telescope NASA put on the moon.

   Page _____

3. If the Hubble Telescope took a picture of Jupiter, describe what the picture would look like.

_____

_____

_____

4. Who was the first American astronaut to go into space?

_____

Page _____

5. When did the first rocket ship go to the moon?

A. The first rocket ship went to the moon in 1969.

B. The first rocket ship went to the moon in 1961.

C. The first rocket ship went to the moon in 1972.

D. The first rocket ship went to the moon in 1965.

Page _____

6. What is gravity and why is it a challenge for rocket ships?

_____

_____

_____

_____

_____

_____

_____

_____

Page _____

Suffix Review: *–ous*, *–ive*, *–ly*, *–ful*, and *–less*

Name: _____

Directions:

1. Throw the die and move the number of spaces indicated.
2. Read the word in the space that you land on and use it correctly in a sentence.
3. Then, write the word in the correct column on this page or the next.
4. Next, write the part of speech for the way you used the word in the sentence.

–ous	Part of Speech	*–ous* + *–ly*	Part of Speech	*–ive*	Part of Speech

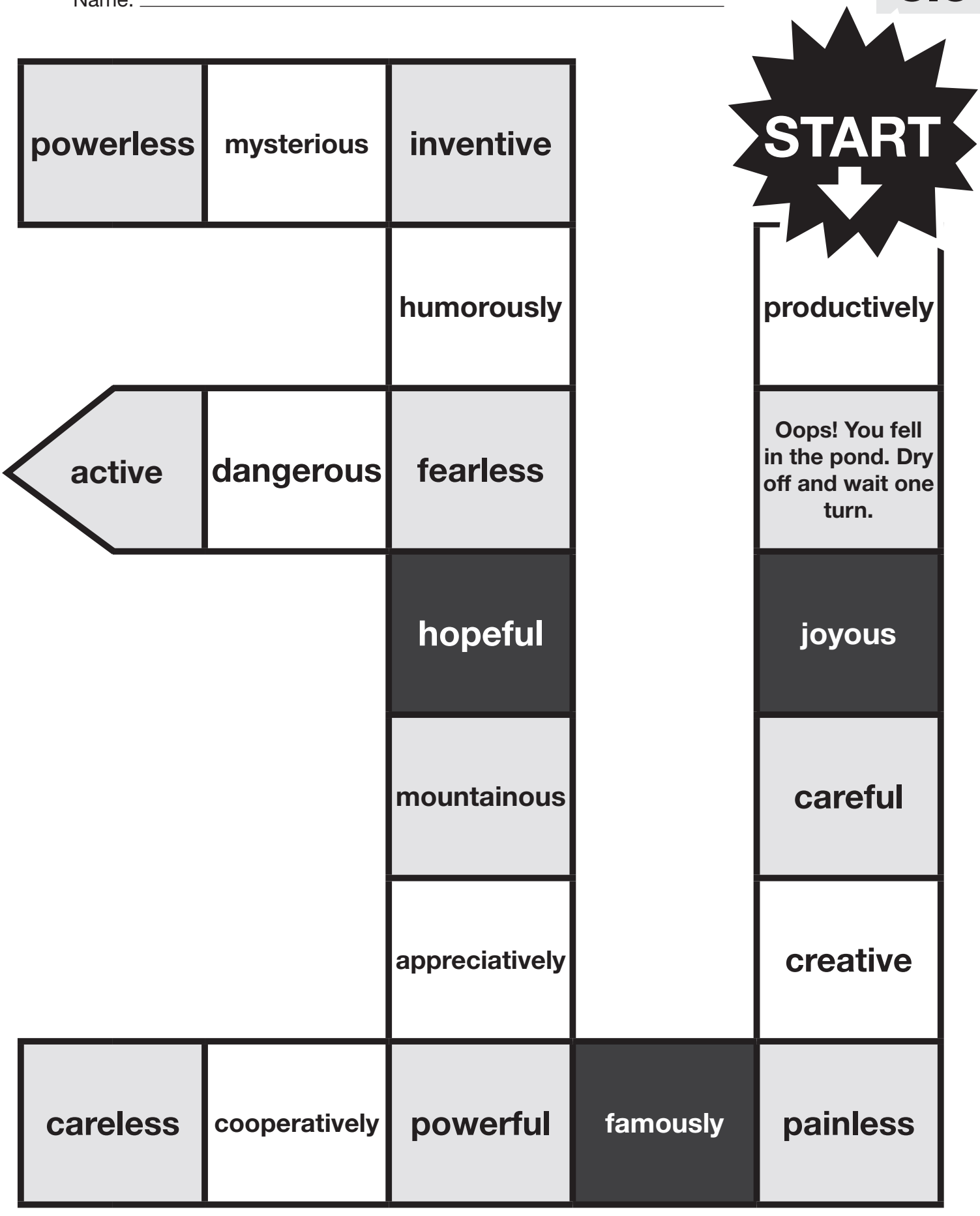
–ive + *–ly*	Part of Speech	*–ful*	Part of Speech	*–less*	Part of Speech

actively	furious	fearful	Good job! You got a big tree for the beavers. Move ahead one space.	decorative
humorous				
cooperative				
expressively				
famous				
painful				
Oh no! The tree fell on the den. Wait 1 turn.	mysteriously	hopeless	productive	poisonous

Frisky Beavers

Name: _____

8.3



Name: _____

8.4

Review Conjunctions

Write the correct conjunction on the blank. Choose from *and*, *but*, *or*, *so*, or *because*.

1. We were not surprised that it was so hot _____ it was summer in the south.

2. Bees, ants, _____ wasps are all insects.

3. Would you rather go to the movies _____ to the county fair tonight?

4. Our school has first grade, second grade, _____ third grade classrooms.

5. I have a bad stomach ache _____ I won't be able to go to my basketball game tonight.

6. We could have done better on the history test _____ we forgot to study ahead of time.

Write the word *Cause* over what happened first and the word *Effect* over what happened second.

Write the conjunction *because* or *so* on the blank.

7. My cousin likes spaghetti _____ her children took her to an Italian restaurant.

8. The child began to cry _____ her parents were angry with her behavior in the store.

9. Aunt May moved to a new city _____ she needed to move to start her new job.

10. My favorite activity is to read a good book _____ my friends gave me a gift certificate to a bookstore.

11. My father couldn't find his keys _____ he missed his doctor's appointment.

Name: _____

8.5

Blank Busters

gnat	skinny	knotted	recently
flannel	knighted	nearby	understand
design	knobby	manned	knowledge
channel	annoy	gnarly	knuckle
campaign			

Challenge Word: very/vary
Challenge Word: enough
Content Word: astronomer

Fill in the blanks in the sentences below with one of the spelling words in the box. Only if needed, add a suffix to the end of a word in order for the sentence to make sense: *–s*, *–ed*, *–ing*, *–er*, or *–ly*.

1. The bothersome TV show was so _____ that I begged my family to change the _____.

2. My _____ silly uncle conducted a lavish _____ to be _____ Sir Uncle Fred!

3. Scientists called _____ study stars, planets, and satellites that are _____ by astronauts.

4. In the pasture is a tree that is so old that its branches are _____ and _____.

5. The _____ nightgowns were warm

6. When the lights went out, I fumbled around in the dark and ran my _____ into a closed door.

7. Teachers make it so easy to _____ difficult topics and they love to fill our heads with _____.

8. I had searched for months but _____ discovered there is a library right around the corner which is _____ enough for me to walk to it.

Write three sentences using spelling words of your choice that were not used in the first ten sentences. Make sure to use correct capitalization and punctuation. You may use the Challenge Words or Content Word in your sentences.

1. _____

_____

2. _____

_____

3. _____

_____

Name: _____

Take-Home Worksheet 

Exploring Space

As you have learned in the last chapters, people have been interested in studying space since ancient times. It was possible to see only some stars and planets with the naked eye. Since they were far, far away, it was impossible to see anything in very much detail.

In 1609, an astronomer named Galileo [ga-li-LAE-oe] created a telescope that he used to observe the night sky. Galileo's telescope made things appear three times larger. Using his telescope, he discovered four of the many moons that orbit the planet Jupiter. He also observed the planet Saturn and the Milky Way.

Since Galileo's time, scientists have created more and more powerful telescopes. Some telescopes are housed in large **observatories** on Earth. Often, these **observatories** are on the top of mountains, far away from any cities or lights. This allows astronomers to clearly see the stars and planets.

Other telescopes are **launched** into space using rockets. They travel far above Earth and have a better view of the universe than telescopes on Earth. One of these telescopes is the **Hubble Telescope**. It was launched in 1990 by **NASA**, the American group of scientists who study outer space. The **Hubble Telescope** is still in space today, orbiting Earth. Since its **launch**, it has sent back thousands of photos to **NASA**. **Hubble's** photos have led to many new discoveries about the universe. For example, using photos from **Hubble**, scientists now think that the universe is about 13 to 14 billion years old!

Besides sending telescopes into space, **NASA** has also launched rocket

ships into space. Scientists believed it was too dangerous for humans to ride the first rocket ships into space. They did not know what effects space travel might have on humans. So, **NASA** first sent apes into space on rocket ships. "Why apes?" you might ask. Think back to what you learned in a previous reader about animals. Apes are mammals and belong to same group of animals, called primates, as humans. By studying the apes, scientists hoped to learn how space travel might affect humans. In 1961, **NASA** sent the first American **astronaut** into space on a rocket ship. His name was Alan Shepard. He stayed in space for only 15 minutes.

After 1961, **NASA** sent more **manned** flights into space. These flights orbited Earth but did not stop or land anywhere in space. Then, in 1969, the United States sent a rocket ship to the moon. The rocket ship was called **Apollo 11**.

Have you ever tried to throw a ball up in the air? The ball goes up at first. Then, it comes back down. No matter how hard you throw it, it comes back down because of **gravity**. **Gravity** is a force of **attraction** that pulls things toward one another. Earth's **gravity** pulls the ball back down to Earth.

Earth's **gravity** is a challenge for rocket ships like **Apollo 11**. In order to fly off into outer space, the rocket ship has to push up with a lot of force. It has to push up with so much force that **gravity** cannot pull it back down.

Apollo 11 fired a lot of strong rockets. It lifted off and went up slowly at first. Then, it got faster and faster. This is what it looked like after a few seconds. After just a few seconds more, it shot up out of Earth's atmosphere and into outer space.

Name: _____

9.1

A Walk on the Moon

1. What was the name of the landing craft on the Apollo 11?

_____

Page _____

2. What did Neil Armstrong say when he stepped on the moon?

_____

_____

Page _____

3. How did people find out about the walk on the moon?

A. They had to wait until the astronauts came back to earth to talk about it.

B. They were able to watch it while it happened on live TV.

C. No one was really interested in the walk on the moon.

D. Reporters went to the moon with the astronauts.

Page _____

4. Where did the space ship land when it returned from space?

A. The spaceship landed at a NASA base.

B. The spaceship landed at an airport in Florida.

C. The spaceship landed at an Army base.

D. The spaceship landed in the ocean.

Page _____

5. The events of the Apollo 11 mission to space are listed below are in wrong order. Use the numbers 1-6 to put them in the right order.

_____ The Eagle lands on the surface of the moon.

_____ Apollo 11 gets into space and steers toward the moon.

_____ Apollo 11 uses its strong rockets to push against gravity and into space.

_____ Three men board Apollo 11 and will be the first men to explore the moon.

_____ The space ship splashed down in the sea and is picked up by the Navy.

_____ Neil Armstrong and Buzz Aldrin go for a walk on the moon.

If a statement is true, write "true" on the line. If a statement is false, write "false" on the line.

6. Neil Armstrong is the name of the astronaut who was in charge of flying Apollo 11.

_____

Page _____

7. It is extremely hot on the moon.

_____

Page _____

8. Buzz Aldrin and Michael Collins are the names of two of the astronauts on Apollo 11.

_____

Name: _____

Grammar Review

Circle the sentence that is punctuated correctly.

1. A. "she was so glad to see her friend remarked Sally."

   B. "She was so glad to see her friend," remarked Sally.

   C. "She was so glad to see her friend?" remarked Sally.

   D. "She was so glad to see her friend, remarked Sally."

2. A. "The tunnel was dark long and scary, said Ted."

   B. "The tunnel was dark, long, and scary," said Ted.

   C. "The tunnel was dark, long, and scary, said Ted."

   D. "The tunnel was dark long, and scary," said Ted.

3. A. Mrs. Black asked "Do you have your reader open."

   B. Mrs. Black asked "Do you have your reader open?"

   C. Mrs. Black asked? "Do you have your reader open."

   D. Mrs. Black asked, "Do you have your reader open?"

Name: _____

Suffix Review

Reminder:

- **–*ous* means "full of"**
- **–*ive* means "relating to"**
- **–*ly* means "in a _____ way"**
- **–*ful* means "full of"**
- **–*less* means "lacking"**

If the sentence shows an example of the correct meaning of the underlined word, write *yes* on the blank that follows. If the sentence does not show an example of the correct definition of the underlined word, write *no*.

1. Dana came up with an inventive way to hang art in her room and made the arrangement look like all the other rooms in the house. _____

2. I saw the hopeless look in my brother's eyes when I told him Dad was running late and we probably wouldn't make it to the movie tonight. _____

3. Dad keeps poisonous cleaning supplies locked up in the shed so no one can accidentally get into them and get sick. _____

4. He drove dangerously through the neighborhood, taking his time and slowing down when he saw people walking or riding bikes. _____

5. The principal appreciatively presented the teacher with her award, thanking her for her hard work and dedication. _____

6. I had a painful gash on my knee from falling on the playground that throbbed and ached. _____

7. At the craft store, she bought supplies to make a decorative frame to hang on a wall that needed some decoration. _____

8. His fearless attitude prevented him from trying new things since he was scared of almost everything. _____

9. We drove through the mountainous area and could see nothing but flat farmland all around. _____

10. Workers used the powerful crane to lift the steel beams high up to the top of the building to put them in. _____

Write a sentence for each word like the previous ones that you can answer with *yes*.

1. *creative*

_____

_____

_____

2. *furiously*

_____

_____

_____

3. *fearful*

_____

_____

_____

Name: _____

Word Sort

Identify the headers. Read the words in the box and circle the vowels that have the /n/ sound. Write the words under each header that match the header's spelling pattern.

'n' > /n/	**'n' > /n/**	**'nn' > /n/**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

'gn' > /n/	**'kn' > /n/**
_____	_____
_____	_____
_____	_____
_____	_____

nicely	sunny	signal	knocker	signs
bigness	gnu	unknown	recognize	hooknoses
annex	messenger	loving	darkness	knifed
bleakness	knapsack	connect	agnostic	foreign
funny	diagnose	beginning	ignite	baking

Name: _____

A Walk on the Moon

Once Apollo 11 was up in space, the astronauts had to steer it to the moon. There were three astronauts on Apollo 11. You can see them in the image on the next page. Each had a job to do. One of them was in charge of flying the spaceship, called Columbia. The other two had to get into a landing craft called the Eagle. Then, they had to steer it down and land it on the moon.

The astronaut who had to steer the Eagle was named Neil Armstrong. He had to find a good, flat spot to land. He also had to set the Eagle down gently.

Lots of people tuned in to watch Armstrong and the Eagle on live TV. At first, Armstrong had a hard time getting the Eagle to go where he wanted it to go. But, in the end, he landed it just fine.

Armstrong sent a message back by radio: "The Eagle has landed!"

The crowds watching it on TV went wild. They danced and sang. They shouted and waved the United States flag. For the first time ever, humans had landed on the moon!

What happened next was even more amazing. The astronauts went for a walk on the moon!

There is no air for breathing on the moon. It is also very cold. So, the astronauts could not just walk out in shorts and a T-shirt. They had to put on space suits like the one in the image on the next page. They had to wear masks. They had to carry tanks full of air for breathing.

Armstrong went out first. He went down the steps of the Eagle until he was on the last one. Then, he made a little hop. He landed on the moon and kicked up a little moon dust. Then, he said, "That's one small step for man, one giant leap for mankind."

Once again people watching it on TV cheered. They were proud that the United States had put a man on the moon!

Another astronaut joined Armstrong on the moon. His name was Buzz Aldrin. While Armstrong and Aldrin were on the moon, pilot Michael Collins stayed on a part of the spaceship that was still orbiting the moon. Armstrong and Aldrin spent more than 21 hours on the moon. They found that it was easy to move about on the moon, which has less gravity than Earth. They could jump up high and seemed to float down slowly. They used different tools to explore the moon. They knew the scientists back on Earth were hoping to learn new information about the moon. They dug up samples of moon rocks to take back to Earth.

After exploring the moon, Aldrin and Armstrong got back in the Eagle. They lifted off. They met up with Michael Collins on board the other part of the spaceship. Then, all three of them flew back to Earth. The spaceship came speeding back from space and splashed down into the sea. A Navy ship came to pick up the astronauts and take them back to NASA.

Name: _____

10.1

Spelling Assessment

As your teacher calls out the words, write them under the correct header.

'nn' > /n/	**'gn' > /n/**
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

'n' > /n/	**'kn' > /n/**
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Challenge Word: _____

Challenge Word: _____

Challenge Word: _____

Content Word: _____

Dictacted Sentences

1. _____

_____

_____

_____

2. _____

_____

_____

_____

Name: _____

10.2

What's it Like in Space?

1. What is gravity?

   A. Gravity is the force of attraction that pulls things away from each other.

   B. Gravity is the measurement of how hot the sun is.

   C. Gravity is the force of attraction that pulls things toward one another.

   D. Gravity is the measurement of how far away the moon is.

   Page _____

2. Why isn't gravity as strong on the moon as on Earth? _____

   _____

   _____

   Page _____

3. How is eating in space different that eating on Earth? _____

   _____

   _____

   Page _____

4. Why can't you hear sounds in space? _____

_____

_____

Page _____

5. Why don't astronauts need to carry air tanks inside their spacecraft to breathe? _____

_____

_____

Page _____

Write *true* or *false* on the line after the sentence.

1. Seen from space, Earth looks like a large brown sphere. _____

Page _____

2. The astronauts do not need to wear any extra clothing because it is the same temperature in space as on Earth. _____

Page _____

3. The astronauts on the moon had great difficulty jumping because the pull of gravity on the moon is very strong. _____

Page _____

START

correct	Sorry, lose a turn	correct	Ride the waterfall!
incorrect			
correct	incorrect		
	Tree falls! Lose a turn		
incorrect	correct	correct	
correct			
incorrect	correct	Take a card from your opponent	correct	Sorry, lose a turn

FINISH!

incorrect	correct	incorrect	Take another turn	correct

Match Me If You Can

incorrect
Give a card to your opponent
correct
incorrect
correct

correct	incorrect	correct	Take another turn	incorrect

Name: _____

Correct or Incorrect?
"Why is it so hot today, asked Mrs. Smith?"

Correct or Incorrect?
The weatherman exclaimed, "The temperature will hit 100 degrees next week!"

Correct or Incorrect?
"Were you happy with my report on insects," asked the anxious student.

Correct or Incorrect?
"The teacher responded, Yes, your report on insects was wonderful!"

Correct or Incorrect?
"Sally and Sandy look like twins but they are just good friends." remarked Aunt Donna.

Correct or Incorrect?
"I wish I had a twin to spend time with," said Dora.

Correct or Incorrect?
The president of the company asked, "Are you skilled in computers?"

Correct or Incorrect?
"I'm not as skilled as I wished I could be, answered the interviewee."

Correct or Incorrect?
What's in Our Universe? was a fun reader to read! said the whole class.

Name: _____

10.4

Correct or Incorrect? "Which chapter was your favorite?," asked Mrs. Black.	**Correct or Incorrect?** The teacher announced, "Robin, Reba and Ronnie win the race!"	**Correct or Incorrect?** "Frank Fred and their friends tried to win the race." said the class.
Correct or Incorrect? Mark asked, "do you like chocolate or vanilla ice cream.".	**Correct or Incorrect?** "my favorite flavor is rocky road," I replied.	**Correct or Incorrect?** Mom asked, "What time is your soccer game today."
Correct or Incorrect? "We play soccer at 2:00 this afternoon, I responded."	**Correct or Incorrect?** My three favorite flavors of ice cream are "strawberry, chocolate swirl, and vanilla."	**Correct or Incorrect?** "Do you know how to play Scrabble?" the camp counselor asked.

Name: _____

Dictionary Skills

Use the following portion of a dictionary page to answer the questions below.

name	**neck**
name 1. *noun* A word used to call a person, place, or thing. 2. *noun* A bad word or phrase used to hurt someone. 3. *noun* A person's reputation. 4. *verb* To state the name of something. 5. *verb* To select someone for a job.	
neck 1. *adjective* Not messy. 2. Great or exellent.	

1. Would the word *narrate* be on this page? _____

2. Circle the (words) that would come before *name* from the following list:
   nails, *nag*, *namely*

3. Which definition of *neat* matches the use of the word in the sentence:

   My desk at school is always *neat*. _____

   What part of speech is *neat* in this sentence? _____

4. Write a sentence using definition 2 for *neat*. _____

   _____

   _____

5. Write a sentence using definition 1 for *name*. _____

_____

_____

6. Write a sentence using definition 2 for *name*. _____

_____

_____

7. Write a sentence using definition 3 for *name*. _____

_____

_____

8. Write a sentence using definition 4 for *name*. _____

_____

_____

Name: _____

11.1

The Space Shuttle

If a statement is true, write "true" on the line. If a statement is false, write "false" on the line.

1. A space shuttle only carries astronauts into space. _____

   Page _____

2. Booster rockets help space shuttles get off the ground and overcome Earth's gravity to get into space. _____

   Page _____

3. The last space shuttle mission took place in July, 2013. _____

   Page _____

Answer the following questions on the lines provided.

4. How is a space shuttle different from the Apollo 11 spacecraft?

   _____

   _____

   _____

   _____

   _____

   Page(s) _____

5. What are the other ways NASA is planning to explore space?

_____

_____

_____

_____

_____

Page _____

Name: _____

11.2

Take-Home Worksheet 

Dear Family Member,

Please help your child succeed in spelling by taking a few minutes each evening to review the words together. Helpful activities for your child to do include: spelling the words orally, writing sentences using the words, or simply copying the words.

Spelling Words

This week, we are reviewing the spellings of /ae/, /k/, /s/, /j/, and /n/ that students have already learned. On Friday, your child will be assessed on these words.

Students have been assigned two Challenge Words, *different* and *thought*. Challenge Words are words used very often. The Challenge Word *different* does follow the spelling patterns for this week as the 'n' is pronounced /n/.

The Content Word for this week is *atmosphere*. This word is directly related to the material that we are reading in *What's in Our Universe?*. The Content Word is an optional spelling word for your child. If your child would like to try it but gets it incorrect, it will not count against him or her on the test for trying. We encourage everyone to stretch themselves a bit and try to spell this world.

The spelling words, including the Challenge Words and the Content Word, are listed below:

1. yesterday
2. quickly
3. jewel
4. recently
5. subject
6. awaited
7. fascinate
8. annoy
9. knowledge
10. refrigerate
11. gymnasium
12. design
13. digest
14. kindness
15. character
16. budget
17. accomplish
18. listen

Challenge Word: different

Challenge Word: thought

Content Word: atmosphere

Student Reader

The chapters your child will read this week in *What's in Our Universe*? include information about the space shuttle and the international space station. Students may read chapters about Dr. Mae Jemison, Nicolaus Copernicus, and the Big Bang. Be sure to ask your child each evening about what he or she is learning.

Students will take home text copies of the chapters in the reader throughout the unit. Encouraging students to read a text directly related to this domain-based unit will provide content and vocabulary reinforcement. Please remind your child that the glossary can be used for finding the meaning of the bolded words.

Name: _____

Take-Home Worksheet 

What's it Like in Space?

Since Apollo 11, many more astronauts have traveled in space. Scientists have learned that there are many differences between Earth and space. One of the biggest differences has to do with gravity. Remember that gravity is a force of attraction that pulls things toward one another. The force of gravity on Earth is pretty strong. Even the best jumpers can only jump a few feet off the ground. (Try it and see!)

Remember that on the moon, astronauts Aldrin and Armstrong were easily able to jump up high. They didn't come down quickly either. Instead, they seemed to float down slowly. That was because the force of gravity on the moon is not as strong as on Earth. The moon is not as big as Earth. So the force of gravity is not as strong on the moon.

If you think that is cool, wait until you read what happens out in space, away from the moon or planets. Out in space, astronauts do not feel the effects of gravity. They and their spaceship are moving freely in space. Since the astronaut and spaceship are moving freely together, the astronauts look and feel as if they are floating!

Up in space, lots of things are different. You can do a flip and not worry about whether you will make it all the way around before you come down!

Eating is different in space, too. I'll bet when you eat lunch at school, your food stays where you put it. If you set it on a table, it stays there until you pick it up. The force of gravity holds it down. But if you were up in space, you and your food would be moving freely together. If you let go of it, your food might drift away!

There are other differences in space besides less gravity. Do you remember that the astronauts on the moon had to carry tanks of air for breathing? Another way outer space is different from Earth is that there is no air or oxygen at all in outer space. Look again at the image on page 87 of the astronauts inside the spaceship. The astronauts are not carrying tanks of air. That's because oxygen is being pumped inside the spaceship.

Since there is no air in space, you also do not hear sounds in outer space. It is also very cold in space. The astronauts must train many months before going into space so they know what to expect. Do you think you would like to go into space some day?

Name: _____

Take-Home Worksheet 

The Space Shuttle

Interest in manned space **exploration** soared after Apollo 11. Other astronauts went to the moon. But scientists were also interested in exploring other parts of space beyond the moon. It was very expensive and took a lot of time to build and send spaceships into space. Do you remember that when Apollo 11 returned from space, it landed in the sea? It was not able to land safely on the ground, so this type of spacecraft always had to land in the sea. Once it landed in the sea, this kind of spacecraft could not be used again.

In 1981, a **reusable** spacecraft, called a **space shuttle**, was built. It was able to fly up into space and then zoom back down to Earth. When it returned to Earth, the pilot was able to land the spacecraft on a runway almost like an airplane. It glided down from space and landed on a runway, but it had to be a very long runway.

The **space shuttle** was flown back into space again and again. It **shuttled** back and forth between Earth and space. That is why it was called the **space shuttle**.

The image on the previous page shows the launch of a **space shuttle**. The **space shuttle** itself is the white part that looks like a jet plane. The other parts are **booster rockets**. The **booster rockets** helped the **space shuttle** get off the ground. They helped the **space shuttle** overcome Earth's gravity. Once the **space shuttle** was up into space, it dropped the **booster rockets** because it no longer needed them.

In the thirty years between 1981 and 2013, different **space shuttles** carried astronauts up into space on many missions. The **space shuttle**

was also used to bring **research** equipment and tools into space. The astronauts did many experiments to find out more about space. Scientists were **especially** interested in learning about what effect the lack of gravity would have on humans and other living things.

The **space shuttle** was also used to help build an amazing **space station**. Astronauts could live at the **space station** for months at a time. Often, the **space shuttle** carried supplies back and forth from Earth to the **space station**. It also provided a ride home to Earth when it was time for the astronauts to return.

The last **space shuttle** mission took place in July, 2013. NASA scientists and Americans were proud of everything the astronauts had accomplished in thirty years. With the end of the **space shuttle** missions, NASA is planning other ways to explore space. Those plans include launching **unmanned** probes and **satellites**. NASA scientists hope to learn more about the moon's gravity and are even talking about trying to explore asteroids!

Name: _____

12.1

The International Space Station

1. How many astronauts can live at the international space station at once?

   A. Two astronauts can live at the international space station at once.

   B. Fifteen astronauts can live at the international space station at once.

   C. Three astronauts can live at the international space station at once.

   D. Five astronauts can live at the international space station at once.

   Page _____

2. How long does an astronaut stay at the international space station?

   A. An astronaut stays at the international space station for one year.

   B. An astronaut stays at the international space station for six months.

   C. An astronaut stays at the international space station for six years.

   D. An astronaut stays at the international space station eight months.

   Page _____

If a statement is true, write "true" on the line. If a statement is false, write "false" on the line.

3. Astronauts in the space station experience the same amount of gravity as people on Earth. _____

   Page _____

4. Astronauts have to run at least once a day to stay in good physical shape. _____

   Page _____

5. When an astronaut returns from space they have no problem adjusting to the gravity on Earth. _____

   Page _____

Answer the following question on the lines provided.

6. How is taking a shower in space different than showering on Earth?

_____

_____

_____

_____

_____

_____

Name: _____

12.2

Singular Possessive Nouns

Rewrite each sentence, changing the group of words in parentheses to a singular possessive noun.

Example: (The light of the sun) is warm on my face.

The sun's light is warm on my face.

1. (The child of my aunt) came to visit us.

_____

_____

2. (The car belonging to my friend) was hit by a truck.

_____

_____

3. (The phone call from my teacher) made my mother very happy.

_____

_____

4. (The cage belonging to the hamster) needed to be cleaned.

_____

_____

Write the singular possessive noun and what belongs to each singular possessive noun on the appropriate blanks.

Example: The boy's picture was hung in the front hall.	
Singular Possessive Noun: boy's	**What belongs to him/her/it? picture**

1. Hank's skateboard is purple.

Singular Possessive Noun: _____ What belongs to him/her/it? _____

2. The giant's footsteps in the hall were thunderous.

Singular Possessive Noun: _____ What belongs to him/her/it? _____

3. The horse's mane blew in the wind as he ran around the track.

Singular Possessive Noun: _____ What belongs to him/her/it? _____

4. The artist's portrait was so realistic that I thought it would speak to me.

Singular Possessive Noun: _____ What belongs to him/her/it? _____

Name: _____

Take-Home Worksheet 

The International Space Station

Would you like to have a bedroom in outer space? Some astronauts do!

The United States and other countries use the space shuttle to send astronauts to an **international** space station. The space station orbits Earth. Three astronauts can live there at one time. They stay for six months at a time. This image shows the space station.

The space station orbits far above Earth. So the astronauts in the space station don't feel the effects of gravity like we do on Earth. When we lift our arms and legs here on Earth, we have to work against gravity. That is good for us. It helps us stay in shape. But astronauts in space don't have the effects of gravity to work against. They do not get much of a workout from drifting around. They have to run at least once a day to stay in good shape. In this image, you can see an astronaut jogging in space.

These two men are sleeping in space. They don't feel the effects of gravity so they are moving freely within the spaceship. This means they can sleep right side up or upside down. It is all the same. Do you think you would like sleeping this way?

Taking a shower in space is tricky. On Earth, the water comes out of the spout. It falls down and splashes on your body. Then, it runs off. But this is not what happens in space! In space, you have to rub the water on your skin. Also, it does not just drip off. You have to scrape it off. You have to shower in a little pod. The pod keeps the water you scrape off your skin from drifting off in the air. If it drifted off, it might cause problems. It might mess up the computers and equipment inside the space station.

You can see that lots of things are different when you live in space. That

is why leaving the space station and coming back to Earth can be hard. It takes time for the astronauts to get used to Earth again. After months in space, they struggle with the gravity on Earth. Their arms and legs feel heavy. They find it hard to stand up. They feel off balance. But in a few weeks, they begin to feel normal again. Sometimes when they look up at the sky, they even feel a little homesick for their home in outer space.

Unit 7 Assessment

All Things Tidal

At high tide, the ocean rides high on the sands. At low tide, it pulls back, exposing a wide strip of beach.

People have watched the tides go in and out for thousands of years. They have also struggled to understand why the tides behave as they do. Two thousand years ago, a Chinese man named Wang Chong studied the tides. He noticed that the tides seem to vary based on the position of the moon. But he could not explain why this occurred.

It was the English scientist Isaac Newton who first discovered that tides are caused by gravity. The moon exerts a gravitational pull on Earth and so does the sun. These gravitational forces work together to create tides. They pull Earth this way and that and they make the water in the oceans shift from one part of Earth to another.

The moon has more of a law of gravity impact on tides than the sun. That is because it is much closer to Earth. Newton's law of gravitation says that the closer something is, and the more mass it has, the more gravitational pull it will exert on another object. The sun is huge. It has a lot of mass. But it is far away. The moon is much smaller and has less mass than the sun. Also, the moon is much closer to Earth.

You can see tides in action at the beach. If you build a sand castle at low tide, it may be swept away by waves at high tide. You may also see tidal pools along the beach. These are formed when some of the water from high tide gets trapped on the beach.

A tidal basin is a man-made reservoir that is filled by ocean water. The most famous tidal basin in the world is in Washington, D.C. It sits right next to the Jefferson Memorial. The tidal basin holds 250 million gallons of water. Water is captured twice a day at high tide. The tidal basin has one set of gates for letting water in. It has another set for letting water out.

A tidal island is a piece of land that is an island some of the time, but not all of the time. It is an island at high tide, but it is connected to the mainland at low tide. The island of Mont Saint-Michel in France is a famous tidal island.

Tides vary from place to place. In some places, the difference between high tide and low tide may be only a few inches. In other places, it may be 20 feet.

Whenever there is a big difference between high and low tide, there is an opportunity to capture energy from the tides. Humans have built power plants that generate electricity from tides. As the tide pushes in and out, the moving water turns turbines. This generates electricity.

Tidal power plants are not very common. A lot of our power comes from burning coal or oil. There is only one tidal power plant in North America. It is in Nova Scotia, Canada. In the future, we may need to make more use of tidal power. There is only so much oil under the earth and there is only so much coal. Once we use up our supplies of oil and coal, we will not have any more. At some point, we will probably need to rely more on renewable energy sources, like wind, tides, and solar power.

Have you ever heard of tidal waves? These are big waves that crash onto shore. Sometimes, they can do great damage. In 2013, one of these waves hit Japan. More than 20,000 people died as a result.

The term tidal wave is still popular, but scientists don't like it. They point out that these so-called tidal waves really have nothing to do with the tides. People started calling them tidal waves because, at first, they look like the tide coming in, only much faster. But these waves actually have nothing to do with tides. They are caused by earthquakes under the ocean. The earthquake produces a wave. The wave travels through the ocean and eventually crashes on shore.

The proper term for this kind of dangerous wave is tsunami. Tsunami is a Japanese word that means "harbor wave."

Name: _____

1. What does the word **exert** mean in the following sentence from the selection?

> Newton's law of gravity says that the closer something is, and the more mass it has, the more gravitational pull it will **exert** on another object.

   A. take away

   B. apply

   C. eliminate

   D. play

2. Why might your sand castle be swept away by a high tide?

   A. At high tide, water stays far away from the beach.

   B. At high tide, water is calm.

   C. At high tide, water comes far up onto the beach.

   D. At high tide, the water is shallow.

3. How often is a tidal island an island? _____

4. Why did the author write this selection?

   A. to inform readers about tides on Earth

   B. to inform readers about tides on the moon

   C. to inform readers about gravity

   D. to inform readers about scientists

5. What has more impact on the tides, the moon or the sun? _____

6. Why does the tidal basin in Washington, D.C. need gates to let water in and out?

_____

_____

_____

_____

7. Tidal power plants are not very _____.

8. Read the following sentence.

> She made a careful measurement of the picture frame to be sure she trimmed the picture correctly so it would fit inside.

Does the sentence demonstrate the meaning of the word *careful*?

Circle: Yes No

Why? _____

_____.

9. Circle the correct conjunction.

The child looked sad (because, so) we stopped to cheer her up.

10. Add adjectives and adverbs to the first row of boxes and simple sentences to the second row to answer the question *Why did the kitten play*?. Choose from your list to create a new, more interesting sentence using the conjunction *because* to connect the two simple sentences.

Starter Sentence: The kitten played.			
Adjectives to describe the kitten	**Adverbs to describe how**	**Adverbs to describe when**	**Adverbs to describe where**
1.	1.	1.	1.
2.	2.	2.	2.
Simple sentences that answer the question, "Why did the kitten play?"			
1.			
2.			

New sentence: _____

_____

_____

_____

The Great Red Spot

Jupiter is a planet, but it is a very different kind of planet than Earth. It is called a "gas giant." There is no land on Jupiter. The planet is big ball of swirling gases. The two main gases are hydrogen and helium. There are also other gases on Jupiter and all of them are blowing and swirling around.

If you looked at a photo of Jupiter, you would see a lot of bands, or belts. These belts are clouds of gas that move around the planet. Some of the belts move from west to east. Others move from east to west. None of them move north and south.

The belts in the center of the planet are called equatorial belts. An equator is an imaginary line that separates a planet into northern and southern hemispheres. Jupiter has an equator, just like Earth.

A little south of Jupiter's equator, you can see a large, reddish oval. This is called the Great Red Spot. The Great Red Spot is a giant storm.

The Great Red Spot is a lot like a hurricane. It has speedy, swirling winds. Scientists think the fastest winds in the Great Red Spot are moving about 120 meters per second. That's about 270 miles per hour. That's very fast. In fact, it's a little faster than the fastest wind ever recorded on Earth.

The Great Red Spot is like a hurricane, but there are also some differences. A hurricane usually does not last more than a week or two. It forms, spins for a few days, and breaks up. The Great Red Spot has been swirling around on Jupiter for at least 180 years!

The Great Red Spot is also a lot more predictable than a hurricane. On Earth, hurricanes often start near the equator. They tend to move away from the equator, but the exact path can be hard to predict. A particular hurricane may head due west. It might head northwest. It might start out heading one way and then curve a different way. Weather watchers try to predict where hurricanes may go but they can never be sure. The Great Red Spot is not like that. It does not move north or south. It only moves east or west. The Great Red Spot goes around Jupiter like a sprinter

running laps on a track. It has done at least ten "laps" in the last 200 years.

Probably the biggest differences between the Great Red Spot and a hurricane have to do with size. The Great Red Spot is much larger than a hurricane on Earth. In fact, it is much larger than Earth! The Great Red Spot is about 20,000 miles across, if measured from east to west. It is about 8,000 miles from north to south. That means it is large enough to contain two or three planets the size of Earth!

A United States spaceship called Voyager 1 went past Jupiter in 1979. Voyager took lots of photographs as it got closer to Jupiter. Later, these photographs were put together to make a time-lapse movie. The movie shows bands swirling around Jupiter. It also shows the Great Red Spot spinning its way across the planet. This time-lapse movie of Jupiter is available on the Internet.

11. Which word with the suffix *–less* has the opposite meaning of the word *powerful*? _____

12. What does the word **swirling** mean in the following sentence from the selection?

> There are also other gases on Jupiter and all of them are blowing and **swirling** around.

A. standing still

B. spinning

C. rocking

D. crawling

13 & 14. The Great Red Spot only moves _____ or _____ and never moves _____ or _____.

15. What is the main idea of this selection?

_____

_____

_____

16. What might happen if the belts of gas on Jupiter started moving north and south as well as east and west?

A. It might be harder to predict their movement.

B. Jupiter may not be called a gas giant.

C. Jupiter may move closer to the sun.

D. There might be more hurricanes on Jupiter.

17 & 18. Circle the correct conjunction.

People must pay for items they take from a store (and, or) they will be arrested for stealing.

(And, Or, So, Because) purple is my sister's favorite color, she asked Mother to buy her a purple lunch box.

19. Which word with the suffix *–ous* might describe the fastest winds in the Great Red Spot?

A. humorous

B. mountainous

C. joyous

D. dangerous

20. Circle words that would be on a dictionary page with the entry words *red* and *reef.*

A. recycle, redeem, redundant

B. redcoat, reek, redwood

C. redwood, reduce, reed

D. reek, redden, Red Cross

Stargirl

"Wow!" said Billy Jones. "What an awesome ride!"

"Oh, no!" said Mrs. Jones. "I think I'm going to be sick!"

The Jones family had just come off The Gorgon, the new roller coaster in Mega Adventure Land.

Billy had enjoyed the ride. His mom had not. She felt dizzy and sick to her stomach.

"Are you really going to be sick, Mom?" Billy asked. He had never seen his mom get sick.

Meanwhile, Billy's sister Jen was tapping away on her pocket calculator.

"I calculate that that the g-force on that last plunge was about 3.5 g's!" she said. "That's three times the force of gravity on the surface of Earth! That's roughly what the astronauts in the space shuttle experience during re-entry!"

Billy rolled his eyes. It was just like Jen to take an awesome ride and turn it into a science lesson.

Jen was nuts about science and especially about astronomy. She had read every astronomy book in the school library. She could tell you about the atmosphere of Venus, the rings of Saturn, and the Great Red Spot on Jupiter. She knew why Pluto was no longer counted as a planet. She knew everything about Apollo 11 and the moon landings. She had a big photograph of the first moon landing on her bedroom door. Below the photo, Jen had written, "One small step for man, one giant leap for mankind." Jen's hero was Dr. Mae Jemison, a female astronaut, who went up in the space shuttle.

Jen already knew more about astronomy than either of her parents. Mr. and Mrs. Jones wanted to help her learn more, but they were quite not sure how to do it. That's why Mr. Jones was so happy when he spotted the flyer.

"Beth!" he called out, as he came in. "Look at this!"

It was a blue flyer. Mr. Jones had found it at the bagel shop. It said, "Astronomy Camp!"

Mr. and Mrs. Jones studied the flyer. The camp would be held during the summer, on the campus of a college a few hours away. The flyer said the camp was for kids 12 to 17 years old.

"It's perfect!" said Mr. Jones.

Mrs. Jones did not reply. A funny look came over her face.

"What?" said Mr. Jones. He had seen that look before. "What's the matter?"

"Jen is only twelve," said Mrs. Jones.

"So?" said Mr. Jones. "It says right here the camp is for ages 12 to 17."

"She'll be the youngest one there!" said Mrs. Jones. "Plus, she's never been away from home before! She might get scared."

"Oh, nonsense!" said Mr. Jones. "She'll be fine! This is right up her alley. She's going to love it!"

Six weeks later, Mr. and Mrs. Jones loaded up the car and drove Jen to astronomy camp. Mrs. Jones was nervous. She bit her fingernails all the way there.

The camp director gave a welcome speech. It was a speech designed to make worried moms worry less. The speech made Mrs. Jones feel better, but she was still worrying when she hugged Jen goodbye.

"Call me tonight!" she said. "Promise you will!"

"I will," said Jen. "I promise."

It was a long ride home. Mrs. Jones cried most of the way. Every so often, she would call out, "My baby girl!"

By the time they got home, the sun had set, although if Jen had been there, she would have pointed out that the sun does not really rise and set. Earth rotates on its axis and that's what gives us days and nights.

Mr. Jones parked the car and opened the door for his wife. He got her a glass of water and sat next to her on the couch.

"Why hasn't she called?" Mrs. Jones said, tearfully.

Just then, the phone rang.

Mrs. Jones grabbed the phone.

"Are you okay?" she sobbed.

Jen did not hear her mom sobbing. She was too busy describing her first day at camp.

"It was so fun!" she said. "First we learned about comets. Did you know that Halley's Comet is visible from Earth every 76 years? It will come around again in 2061.Then, we learned about galaxies and solar systems. Did you know that there are millions of galaxies in the universe? Our professor, Dr. Phillips, is so cool! He told us that there are probably lots of solar systems out there that are a lot like our galaxy. That means they have a hot star at the center, like our sun, and some planets orbiting around . . ."

"Is she okay?" asked Mr. Jones.

Mrs. Jones nodded. Then, she held out the phone.

From the earpiece, Jen's voice, overflowing with joy and excitement, drifted out into the air: "After lunch, we learned about the Hubble Space Telescope. It's a telescope that floats up in space. . ."

Mr. and Mrs. Jones felt a tremendous sense of relief. They knew that their daughter was safe and happy—and getting smarter every day.

21. Where is the family at the beginning of this selection? _____

_____

22. List 5 things Jen knew about astronomy.

_____

_____

_____

_____

_____

23. What does the word **spotted** mean in the following sentence from the selection?

> That's why Mr. Jones was so happy when he **spotted** the flyer.

A. saw

B. wrote

C. threw away

D. cut up

24. Why was it like Jen to take an awesome ride and turn it into a science lesson?

_____

_____

_____

25. Arrange the events from the selection in order from 1–5.

_____ Jen called to tell her family about the first day of astronomy camp.

_____ Jen's dad saw a flyer for astronomy camp and thought Jen would like it.

_____ Jen calculated the g-force on the last plunge of the roller coaster ride.

_____ Jen's mother cried most of the way home.

_____ Jen's family took her to astronomy camp.

26. Which of the following was not something Jen learned about during her first day of astronomy camp?

A. the Hubble Space Telescope

B. the Big Bang

C. galaxies

D. Halley's Comet

27. Write the sentence with appropriate punctuation and capitalization.

our art teacher asked which of the four paintings do you like the best

_____

_____

_____

28. Circle words that would be on a dictionary page with the entry words *bagel* and *ballad*.

A. ballast, bale, balcony

B. baggage, ball, balance

C. bait, ballerina, bald

D. bag, bailiff, balk

29. Rewrite the sentence, changing the group of words in parentheses to a singular possessive noun.

(The wagon belonging to Bobby) was full of huge pinecones that he had collected all over the neighborhood.

_____

_____

_____

30. Circle the appropriate suffix or suffixes to add to the root word to complete the following sentence.

Jen act_____ pursued opportunities to talk about science, learn about science, and do science-related activities.

–ive *–ly* *–ous* *–less*

Name: _____

Fluency Assessment

The Hoba Meteorite

A meteorite is a rock from outer space. There are lots of rocks floating around in space. If one of these rocks gets close to Earth, it will be attracted by Earth's gravity. It will begin to move closer to Earth. As the rock gets closer, Earth will exert a stronger and stronger gravitational pull on it. The rock will start moving faster and faster. It will also heat up. Eventually, it will turn into a special kind of fireball known as a meteor. 14 29 43 55 70 84

Many meteors burn up before they reach Earth. A few make it all the way to our planet and smack into the ground. If a meteor reaches Earth, we say it is a meteorite. 98 112 118

Someday you may see a meteor in the night sky. They are hard to see during the day, but at night it is much easier. Some people refer to meteors as "shooting stars." That's not quite the right term. Meteors are more like rocks than stars. But they do look like falling stars when they come zipping through the night sky. 132 147 159 173 179

More than 35,000 meteorites have been found on Earth. Some of these are tiny pebbles. Others are large boulders. The Hoba meteorite is the largest meteorite ever discovered on Earth. It weighs more than 60 tons. 190 202 214 215

The Hoba meteorite is in the African country of Namibia. It has never been moved to a museum. It is still lying where it fell. That's mainly because of its size. It would be very difficult to move. 227 242 253

The Hoba meteorite was discovered in 1920. A farmer was plowing 264
his fields with an ox. He heard a metallic scratching noise. Then, his plow 278
stopped suddenly. The farmer tried to dig around the rock and discovered 290
that it was huge. A scientist came to look at it. He concluded that it was a 307
meteorite. 308

Scientists think the Hoba meteorite fell to Earth about 80,000 years 319
ago. It is about 84% iron and 16% nickel. Thousands of tourists come to 333
see it each year. 337

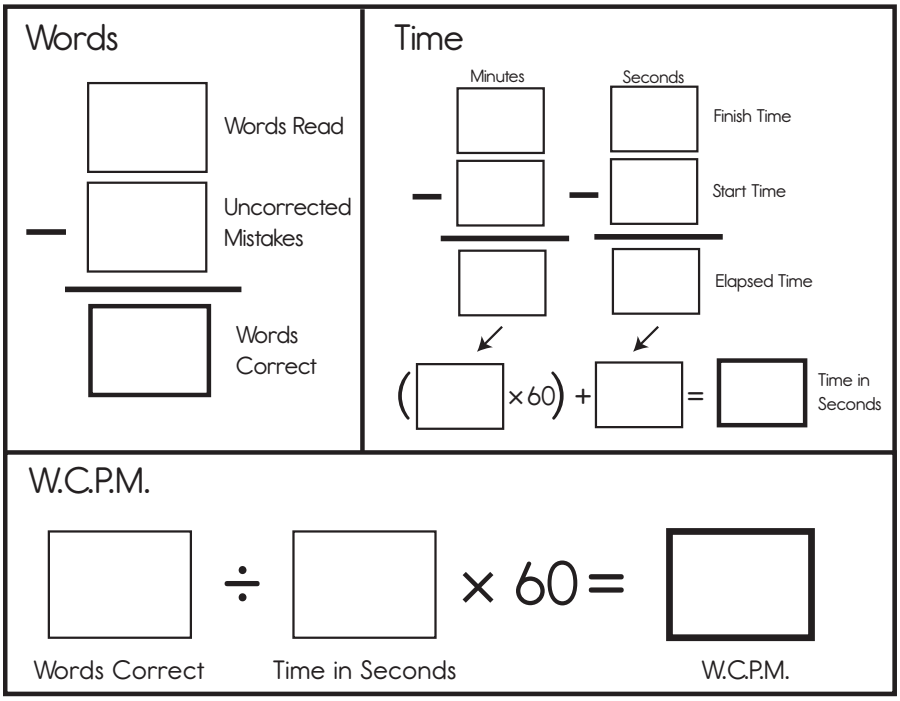
Name: _____

W.C.P.M. Calculation Worksheet

Student: _____ Date: _____

Story: *The Hoba Meteorite*

Total words: *337*



Compare the student's W.C.P.M. score to national norms for Winter of Grade 3 (Hasbrouck and Tindal, 2006):

W.C.P.M	National Percentiles for Winter, Grade 3
146	90th
126	75th
92	50th
62	25th
36	10th

Comprehension Total ____ / 4

Answers Correct	Level
4	Independent comprehension level
3	Instructional comprehension level
1-2	Frustration comprehension level
0	Intensive remediation warranted for this student

Name: _____

14.1

Plural Possessive Nouns

Rewrite each sentence, changing the group of words in parentheses to include a plural possessive noun.

Example: (The statues belonging to the sculptors) are very lifelike.

The sculptors' statues are very lifelike.

1. (The neighbors of my cousins) came to visit us.

_____

_____

2. (The bicycles belonging to my friends) are all brand new.

_____

_____

3. (The cards from well-wishers) made my brother feel very loved.

_____

_____

4. (The leashes belonging to my cats) should be replaced.

_____

_____

Write the plural possessive noun and what belongs to each plural possessive noun on the appropriate blanks.

Example: The boys' pictures were taped to the refrigerator.	
Plural Possessive Noun: boys'	**What belongs to them? pictures**

1. The painters' spots to paint are near the ocean.

Plural Possessive Noun: _____ What belongs to them? _____

2. The magicians' tricks fooled all of us.

Plural Possessive Noun: _____ What belongs to them? _____

3. The kittens' ears all twitch when I open a can of cat food.

Plural Possessive Noun: _____ What belongs to them? _____

4. The plumbers' tools are shiny and new.

Plural Possessive Noun: _____ What belongs to them? _____

Name: _____

15.1

Spelling Assessment

As your teacher calls out the words, write them under the correct header.

/n/	/ae/	/s/
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

/k/	/j/
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Challenge Word: _____

Challenge Word: _____

Content Word: _____

Dictacted Sentences

1. _____

_____

_____

_____

2. _____

_____

_____

_____

Name: _____

16.1

Write a Research Paper

Plan

1. _____
2. _____
3. _____
4. _____

Draft

5. _____
6. _____
7. _____
8. _____

Edit

9. _____
10. _____

Publish

11. _____
12. _____
13. _____

Name: _____

16.2

Take Notes on "Our Planet Earth"

1. What does the word *solar* mean? _____

_____

2. What is our sun? _____

_____

_____

3. Where in our solar system is the sun located? _____

_____

_____

4. The sun is made of _____

_____

_____

A. How hot is our sun? _____

_____

B. How large is our sun? _____

_____

5. What does our sun do? _____

_____

_____

Name: _____

16.3

Take Notes on "Our Solar System, Part I"

1. Name the eight planets in order. What sentence can help you remember the order of the planets? _____

_____

_____

_____

2. What four planets are closest to the sun? _____

_____

_____

What do they have in common? _____

_____

_____

3. What four planets are farthest away from the sun? _____

_____

_____

How are they different from the four planets closest to the sun? _____

_____

_____

4. List three similarities among all planets.

A. _____

B. _____

C. _____

5. List four differences among all planets.

A. _____

B. _____

C. _____

D. _____

Name: _____

6. On which planet do we live? _____

7. What is an atmosphere? _____

_____

8. How does Earth's atmosphere support life? _____

_____

_____

_____

Name: _____

16.4

Take Notes on "Our Solar System, Part II"

1. List other objects in our solar system:

   A. _____

   B. _____

   C. _____

2. Asteroids are made of _____

   _____

   A. Why are asteroids not considered planets? _____

   _____

   _____

   B. Where are most asteroids located? _____

   _____

   C. What is that cluster of asteroids called? _____

   _____

3. What are meteoroids? _____

_____

A. What are meteors? _____

_____

B. What is another name for meteors? _____

_____

C. What are meteorites? _____

_____

D. What damage can meteorites cause to Earth's surface? _____

_____

4. Comets are made of _____.

A. What happens when a comet gets too close to the sun? _____

_____

B. What is the name of the most famous comet? _____

_____

C. How did it get its name? _____

_____

Name: _____

17.1

Research Paper: First Draft

_____

Name: _____

Name: _____

Name: _____

18.1

Introduction and Conclusion

Introduction to Research Paper

Conclusion to Research Paper

Name: _____

Revision Checklist

Ask yourself these questions as you revise your paragraphs.

1.	Do I have a title?	
2.	Have I organized information into paragraphs that relate to my topic?	
3.	Does every paragraph have a good topic sentence/main idea?	
4.	Does every paragraph have other sentences in a logical order that provide details supporting the topic sentence?	
5.	Does every paragraph have a concluding sentence?	
6.	Do I have a good variety of sentence structure?	
7.	Have I included interesting sentences using adjectives, adverbs, and conjunctions?	
8.	Could I combine any of my sentences?	
9.	Does each sentence provide a complete thought?	
10.	Are there any parts that do not make sense?	

Name: _____

Rubric for Research Paper

Expectation	5 = 100%	4 = 80%	3 = 60%	2 = 40%	1 = 20%	0 = 0%
Paragraph organization						
Topic sentences						
Supporting details in sentences						
Sentences written in logical order						
Concluding sentences						
Grammar, capitalization, and punctuation						
References listed appropriately						
Illustrations						
Overall neatness of work						

Name: _____

18.4

Research Paper: Second Draft

_____

Name: _____

Name: _____

Name: _____

19.1

References

Name: _____

19.2

Research Paper Editing Checklist

Ask yourself these questions as you edit your paragraphs.

1.	Are all of my topic sentences indented?	
2.	Do all of my sentences start with a capital letter?	
3.	Do all of my sentences end with the correct punctuation? (. ? or !)	
4.	Have I spelled all of my words correctly? (Use a dictionary.)	
5.	Have I used correct grammar?	
6.	Have I included interesting sentences using adjectives, adverbs, and conjunctions?	
7.	Could I combine any of my sentences?	
8.	Are my references listed correctly?	

Name: _____

19.3

Research Paper: Final Paper

_____

Name: _____

Name: _____

Name: _____

Name: _____

20.1

Title Page

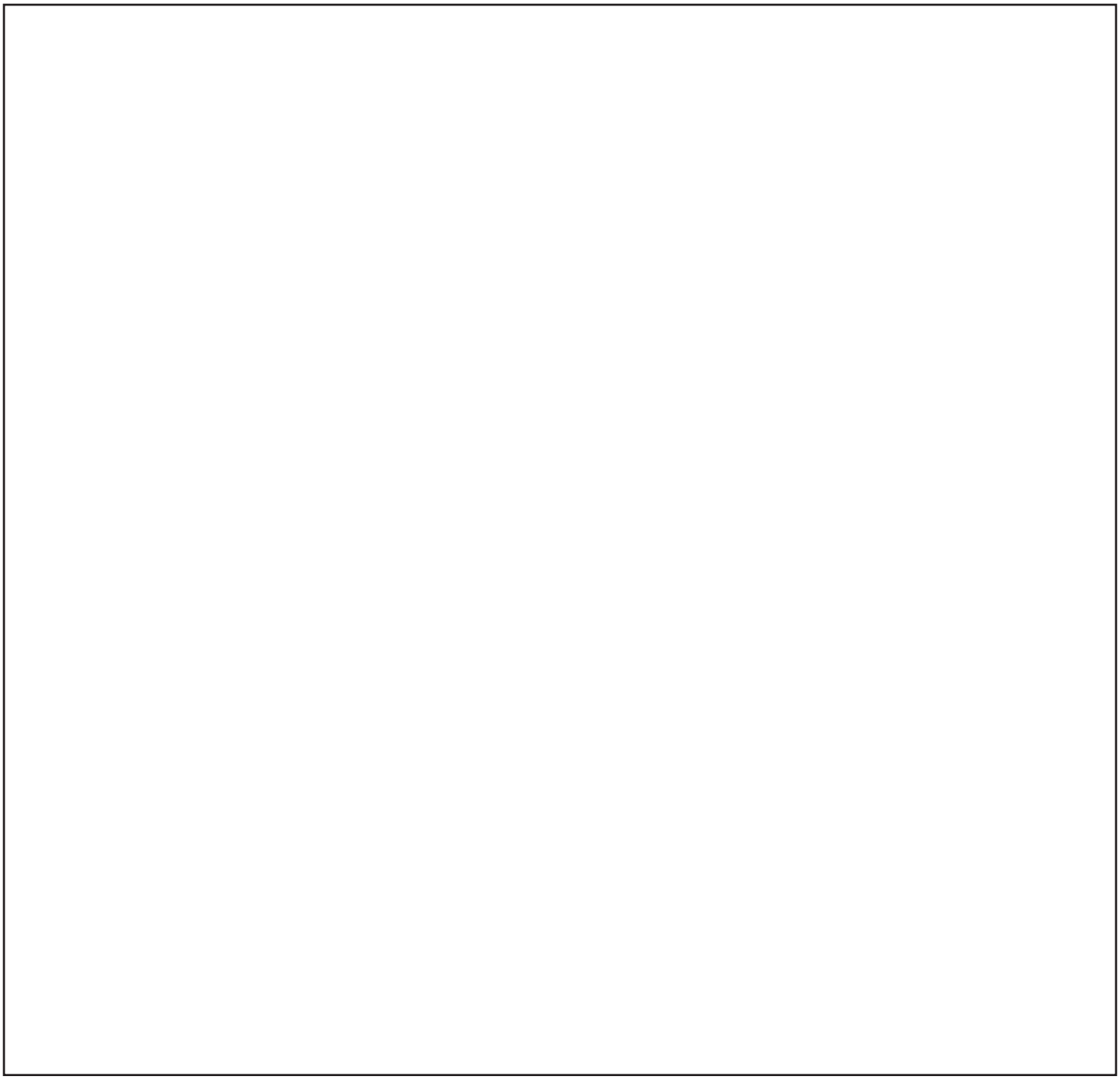
_____

Written and illustrated by:_____

Name: _____

20.2

Illustrations



Name: _____

20.3

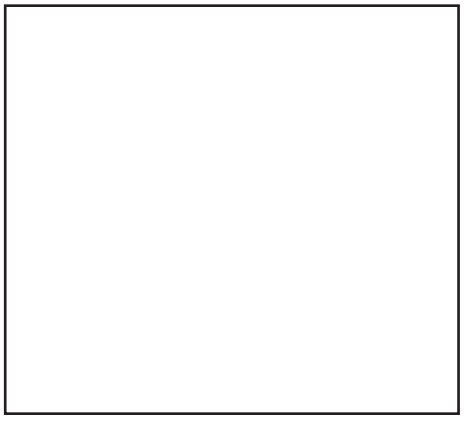
Meet the Author

My name is: _____

My age: _____

My school: _____

My teacher's name: _____



Picture of me

My favorite books:

_____

_____

_____

My favorite activities:

_____

_____

_____

Name: _____

PP1

Dr. Mae Jemison

1. The events of Mae Jemison's life listed below are in the wrong order. Use the numbers 1–7 to put them in the right order.

   _____ Joins the Peace Corps and goes to Africa

   _____ Graduates from high school at the age of 16

   _____ Becomes the first African-American female astronaut to go into space

   _____ Attends Stanford University

   _____ Is one of 15 people chosen out of 2,000 applicants to be an astronaut

   _____ Goes to medical school

   _____ Retires from NASA and becomes a professor

2. Why do you think Mae Jemison is a good role model for others? Can you name any other people that you have learned about in previous lessons who would be a good role model?

_____

_____

_____

_____

_____

_____

Name: _____

PP2

Take-Home Worksheet 

Dr. Mae Jemison

Do you know what a role model is? A role model is someone who sets an example for others by the way he or she lives. Many students admire people who are famous athletes, movie stars, or singers and use them as role models. They see them on TV, in newspapers and magazines, and decide they want to be like them. But some of the best role models are people that you probably would not see on TV or in newspapers. They have jobs such as doctors, teachers, or policemen. Some are scientists and astronauts. One such person is Mae Jemison.

Mae Jemison was born October 17, 1956, in Decatur, Alabama. Her family moved to Chicago, Illinois when she was young. Mae always took great pride in her schoolwork. She was interested in science, but was also interested in the arts. She finished high school early at age 16! From there, she went to Stanford University in California. Most college students focus on only one topic of study because college is so challenging. Mae focused and excelled in two topics of study—**chemical engineering** and **African-American studies**!

After Stanford, Mae entered medical school to become a doctor. She wanted to use her medical training to help people in Africa and countries where people were poor. So, she joined the **Peace Corps** as a **volunteer**. **Health care** in Africa was often not very good. Mae treated patients and also helped train other **health care** workers. She worked hard to help improve **health care** in the countries where she worked.

After the **Peace Corps**, Mae came back to the United States. She set her sights on a different goal. Her greatest dream was to become an

astronaut and travel into space. She decided to apply to NASA to become an astronaut. But the first time she applied, she was not accepted. Instead of giving up, she tried again and NASA accepted her the second time! She was one of only 15 people chosen from a group of 2,000 people who wanted to become astronauts!

Her training to become an astronaut was hard. She had to get into great shape and train to get used to being free of the effects of gravity in space. She also had to study and pass many tests about space travel. Mae Jemison succeeded in both.

In 1992, Mae was chosen for a mission on the ***Endeavour*** space shuttle. A rocket launched the ***Endeavour*** into orbit around Earth. Mae became the first African-American female astronaut in space!

The mission was to study the effects of **weightlessness** on plants and animals. Mae conducted experiments during the mission with fellow astronaut Jan Davis. They collected information that the scientists at NASA could study. The mission was a great success.

After her successful mission, Mae retired from NASA. She became a professor at Dartmouth College, sharing her love of science and space with other students. She also started her own company called The Jemison Group, Inc. Mae's company continues to work with people in poor countries, searching for ways that science can help improve these people's lives. Mae Jemison is truly a role model that we can all admire!

Name: _____

PP3

Nicolaus Copernicus

If a statement is true, write "true" on the line. If a statement is false, write "false" on the line.

1. The Greeks and other ancient people believed that the sun revolved around the Earth.

   _____

   Page _____

2. Nicolaus Copernicus studied astronomy, psychology, history, and art.

   _____

   Page _____

3. Nicolaus Copernicus was only able to view space and come up with ideas because he had a telescope.

   _____

   Page _____

4. Even after Nicolaus Copernicus died, the church and other scientists argued against his theory that the Earth revolved around the sun.

   _____

   Page _____

Answer the following question on the lines below.

5. List some ways that ancient people's ideas about space differ from what we know today.

Page _____

Name: _____

PP4

Take-Home Worksheet 

Nicolaus Copernicus

Do you remember in the very first chapter of this reader you learned that long ago, people believed that the sun moved around Earth? This seemed to make sense. Each morning at the start of the day, the sun rose in the east. At the end of the day, the sun set in the west—exactly opposite from where it had come up. To explain this change, people said the sun moved around Earth. This is what the Greeks and other ancient people believed. But you also learned in the first chapter that this was not true.

About the same time that Christopher Columbus landed in America, a man named Nicolaus Copernicus was studying math and astronomy at a university in Poland. He later moved to Italy where he also studied medicine and law.

But Copernicus' real love was astronomy. He knew that since ancient times, people believed that the sun moved around Earth. Copernicus began to carefully observe and record the movement of the sun, planets, and stars. After much research, Copernicus decided that the belief that the sun moved around Earth could not be true. Copernicus' observations led him to believe just the opposite! He realized that instead, Earth was moving around the sun! He also believed that as Earth orbited the sun, it also completed a full rotation each day.

All of Copernicus' ideas came from viewing space without the help of a telescope. He wrote down what he observed from a cathedral bell tower. He also used math to help him prove his point. Finally, Copernicus wrote a book explaining his new ideas about how the universe worked. His fellow scientists went to work trying to prove him wrong, but they couldn't. Most were amazed by his discovery!

However, Copernicus' ideas were different from what people had believed for thousands of years. They believed that Earth and humans were the center of the universe. Many of the teachings of the church at that time were also based on this belief. Copernicus had dared to suggest that Earth was not the center of the universe. Instead, he said, the sun was at the center! Many in the church disagreed with Copernicus' ideas and spoke out against them. So, his beliefs were not widely accepted while he was alive.

In fact, even after Copernicus died, the church continued to argue against the view that the sun was at the center of the universe. Some scientists agreed with Copernicus' ideas. Galileo agreed with Copernicus and was punished and put in jail for a long time.

Today we know, of course, that Copernicus was right. It took great **courage** to speak up and suggest an idea that was so different from what people had always believed. But that is how science works. Even today, scientists continue to learn new things about the universe, so our knowledge is always changing and growing.

Name: _____

PP5

The Big Bang

1. What does the Big Bang Theory try to explain?

_____

_____

_____

Page _____

2. Who proposed the Big Bang Theory?

   A. George Lemaitre proposed the Big Bang Theory.

   B. Alexander Friedmann proposed the Big Bang Theory.

   C. Edwin Hubble proposed the Big Bang Theory.

   D. all of the above

   Page _____

3. According to the Big Bang Theory, how did everything in space start off?

   A. Everything started as a tightly packed ball.

   B. Everything started as one giant planet.

   C. Everything started as a small ball of heat energy.

   D. Everything started the exact way that it is now.

   Page _____

4. How long ago do scientists believe the Big Bang happened?

   A. 14 million years ago.

   B. 7 billion years ago.

   C. 14 billion years ago.

   D. 14 thousand years ago.

   Page _____

5. According to the theory, after the matter from the Big Bang cooled off, what caused the matter to pull together into spheres?

   A. Heat caused the matter to pull together into spheres.

   B. Black holes caused the matter to pull together into spheres.

   C. Expansion caused the matter to pull together into spheres.

   D. Gravity caused the matter to pull together into spheres.

   Page _____

Name: _____

PP6

Take-Home Worksheet 

The Big Bang

Have you ever wondered how the universe and our solar system came to be? Astronomers have studied the universe for thousands of years. During that time, people suggested many different explanations of how our solar system began.

With the help of telescopes, modern astronomers noticed that all of the distant galaxies in the universe seem to be moving outward. The more distant the galaxies, the faster they are moving outward. Stars are moving away from Earth and so are whole galaxies. In 1929, a scientist named Edwin Hubble discovered this distance versus speed that is now called "Hubble's Law." (This is the same "Hubble" after whom the Hubble Telescope is named!)

Hubble's observation led scientists to offer new explanations of how the solar system started. One recent **theory** or idea is known as the **Big Bang Theory**. A **theory** in science tries to explain how something happened or how something works.

Three **astrophysicists** proposed the **Big Bang Theory** in the 1960s. **Astrophysicists** are scientists who use math to study the universe. George Lemaitre, Alexander Friedmann, and Edwin Hubble studied the theories of another scientist by the name of Albert Einstein. They used his ideas to develop their explanation of how the universe first started.

They suggested that long ago, the universe and everything in it was once a tiny ball. All of the stuff that makes the universe (called **matter**) was squeezed together into one tiny space. Imagine if all the planets and all the stars were squeezed together to fit in your hand. That is how tight and tiny

the ball was! Scientists think that everything began expanding outward about 14 billion years ago. All the **matter** in the universe exploded out at once! That is why the event is called the Big Bang.

When all the **matter** in the ball began moving out, it was very hot. It was hotter than even the hottest star. Everything was moving so fast as it expanded that nothing could stick together. It was too hot and fast for anything to be like what it is today. There were no galaxies, no stars, no planets, and no people.

But over time the **matter** began to cool. As the **matter** cooled and stopped moving so fast, gravity was able to hold little bits of **matter** together in **spheres**. These little **spheres**, with the help of gravity, came together and became the first stars and galaxies. Over billions of years of **matter** moving and growing, the universe became the way it looks today. The sun and planets in our solar system formed about four billion years ago.

Many scientist believe that the space for more clues about the Big Bang. There is still a lot to learn about the early universe. Scientists sometimes make minor changes to the **Big Bang Theory** to match what they have learned. It is amazing to think how old our solar system is and that scientists are still trying to find out how it all started!

Name: _____

PP7

Build Sentences with the Conjunction *so*

Add adjectives and adverbs to the first set of rows. Add simple sentences to the second set of rows to answer the question, *What happened because?* Choose from your list to create two new, more interesting sentences using the conjunction *so*.

Starter Sentence: **The player scored.**			
Adjectives to describe **the player**	Adverbs to describe **how**	Adverbs to describe **when**	Adverbs to describe **where**
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.
Simple sentences that answer the question, **"What happened because the player scored?"**			
1.			
2.			
3.			
4.			

New sentences:

1. _____

_____

2. _____

_____

Starter Sentence: **The weeds grew.**			
Adjectives to describe **the weeds**	Adverbs to describe **how**	Adverbs to describe **when**	Adverbs to describe **where**
1.	1.	1.	1.
2.	2.	2.	2.
3.	3.	3.	3.
4.	4.	4.	4.
Simple sentences that answer the question, **"What happened because the weeds grew?"**			
1.			
2.			
3.			
4.			

New sentences:

1. _____

_____

2. _____

_____

Name: _____

PP8

Conjunctions *and* and *or*

Read both sentences in each item carefully, looking closely at the conjunction *and* or *or* and other clue words in the sentence. Circle the choice that uses the conjunction correctly so that the sentence makes sense.

1. A. I am wearing sneakers or I am wearing sandals right now.
   B. I am wearing sneakers and I am wearing sandals right now.

2. A. We are going to watch a movie and we are also going to eat cake for my birthday.
   B. We are going to watch a movie or we are also going to eat cake for my birthday.

3. A. She will wear a purple sweater or she will wear a green sweater to school today.
   B. She will wear a purple sweater and she will wear a green sweater to school today.

4. A. Uncle Zack should get more sleep and he may fall asleep driving.
   B. Uncle Zack should get more sleep or he may fall asleep driving.

5. A. I ate an orange or my brother ate an apple for snack yesterday.
   B. I ate an orange and my brother ate an apple for snack yesterday.

Write sentences using the conjunctions *and* or *or*.

6. (and) _____

_____

_____

7. (or) _____

_____

_____

Name: _____

PP9

Quotation Marks

Circle the sentence that is punctuated correctly.

1. A. “the hamster wore himself out and is sleeping now,” said Bob.

   B. “The hamster wore himself out and is sleeping now,” said Bob.

   C. “The hamster wore himself out and is sleeping now?” said Bob.

   D. “the hamster wore himself out and is sleeping now, said Bob.”

2. A. “Why are you so friendly to everyone,” asked Gina.

   B. “Why are you so friendly to everyone?” asked Gina.

   C. “Why are you so friendly to everyone,” asked Gina?

   D. “why are you so friendly to everyone.” asked Gina.

3. A. My art teacher exclaimed, “you are a terrific artist!”

   B. “My art teacher exclaimed, “You are a terrific artist!”

   C. My art teacher exclaimed! “You are a terrific artist!”

   D. My art teacher exclaimed, “You are a terrific artist!”

4. A. Have you ever seen a purple and orange cat, “I wondered.”

   B. “Have you ever seen a purple, and orange cat,” I wondered.

   C. “Have you ever seen a purple and orange cat?” I wondered.

   D. “Have you ever seen a purple and orange cat,” I wondered?

Write a conversation between a fish and a bunny about which animal makes a better pet. Use capital letters, punctuation marks, and quotation marks correctly.

Name: _____

PP10

Singular Possessive Nouns

Rewrite each sentence, changing the group of words in parentheses to a singular possessive noun.

Example: (The light of the sun) is warm on my face.

The sun's light is warm on my face.

1. (The visit of my grandfather) surprised and delighted all of us.

_____

_____

2. (The wagon belonging to my neighbor) was painted bright red.

_____

_____

3. (The note from my sister) said, "Happy Birthday."

_____

_____

4. (The bowl belonging to my poodle) needed to be filled.

_____

_____

Write the singular possessive noun and what belongs to each singular possessive noun on the appropriate blanks.

Example: The boy's picture was hung in the front hall.

Singular Possessive Noun: boy's **What belongs to him/her/it? picture**

1. Shel's poetry was very funny and imaginative.

Singular Possessive Noun: What belongs to him/her/it?

_____ _____

2. The troll's shouts made us stop before crossing the bridge.

Singular Possessive Noun: What belongs to him/her/it?

_____ _____

3. The school's cafeteria was full of students eating lunch.

Singular Possessive Noun: What belongs to him/her/it?

_____ _____

4. The cloud's movement across the sky changed its shape.

Singular Possessive Noun: What belongs to him/her/it?

_____ _____

Name: _____

PP11

Plural Possessive Nouns

Rewrite each sentence, changing the group of words in parentheses to include a plural possessive noun.

Example: (The patterns of the blocks) were hard to copy.

The blocks' patterns were hard to copy.

1. (The smiles of the neighbors) made us feel very welcome.

_____

_____

2. (The lawnmowers of the workers) were all falling apart.

_____

_____

3. (The paintings from the students) were cheery and bright.

_____

_____

4. (The toys belonging to the toddlers) needed to be put away.

_____

_____

Write the plural possessive noun and what belongs to each plural possessive noun on the appropriate blanks.

Example: The girls' portraits were waiting to be hung.	
Plural Possessive Noun: girls'	**What belongs to them? portraits**

1. The authors' books filled our library.

Plural Possessive Noun: _____ What belongs to them? _____

2. The farmers' hours were long and full of work.

Plural Possessive Noun: _____ What belongs to them? _____

3. The puppies' paws were muddy and messy.

Plural Possessive Noun: _____ What belongs to them? _____

4. My cousins' names all begin with the letter 'S'.

Plural Possessive Noun: _____ What belongs to them? _____

Suffixes *–ful* and *–less*

Read each clue and decide which of the words in the box it demonstrates. Fill in the crossword puzzle with the word.

careful	hopeless	fearless	painful	powerless
powerful	painless	careless	hopeful	fearful

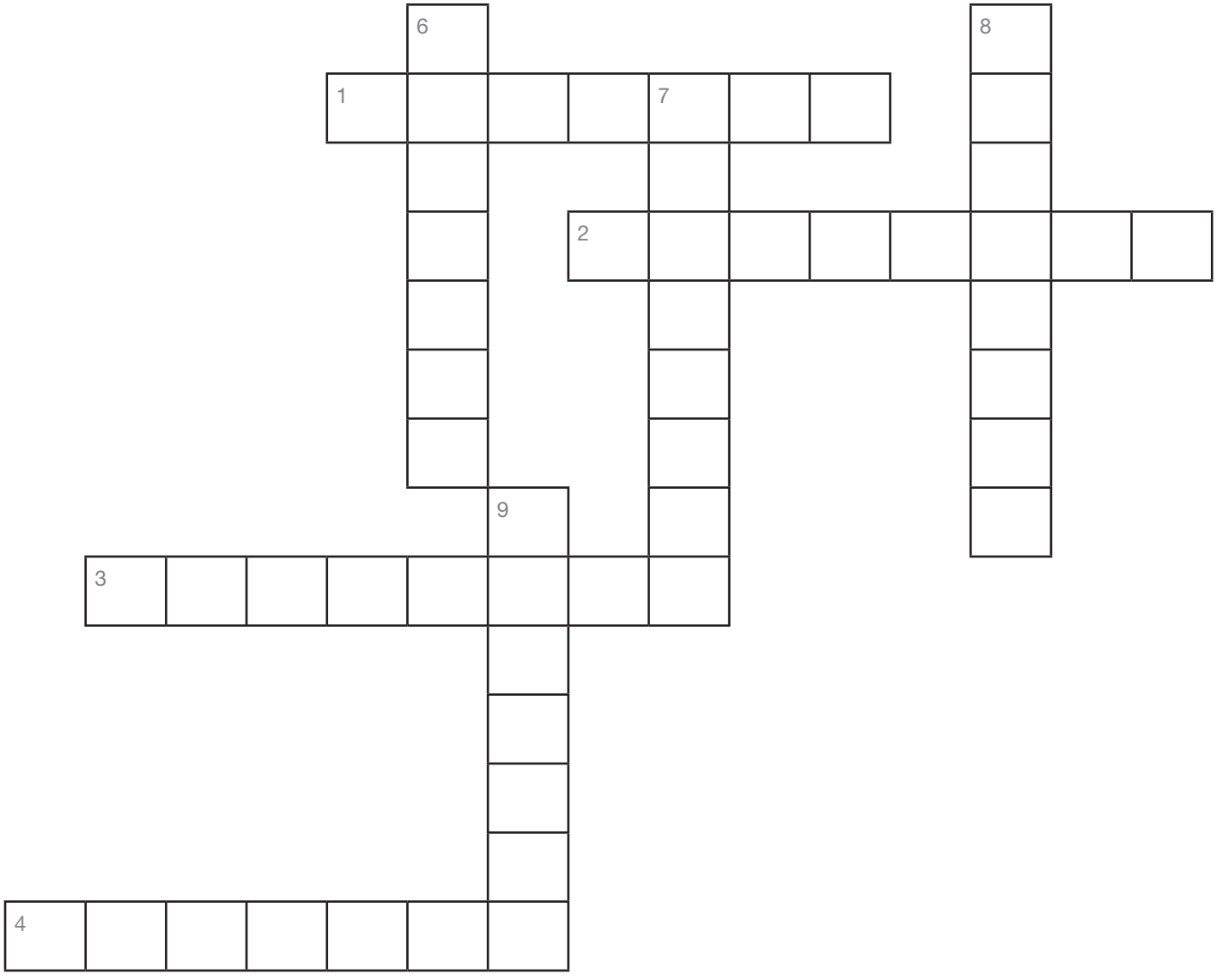
Across

1. A girl takes her time to read the chapter.
2. I did not even know the doctor had already given me the shot.
3. The man threw his trash on the sidewalk.
4. He ran home to check the mailbox for a letter.

Down

5. I fell off the swing at recess.
6. The firemen battled the huge fire.
7. My team lost five games in a row.
8. I cannot watch scary movies.

Name: _____



Name: _____

PP13

Suffix Review

Reminder:

- ***–ous*** **means "full of"**
- ***–ive*** **means "relating to"**
- ***–ly*** **means "in a _____ way"**
- ***–ful*** **means "full of"**
- ***–less*** **means "lacking"**

If the sentence shows an example of the correct meaning of the underlined word, write *yes* on the blank that follows. If the sentence does not show an example of the correct meaning of the underlined word, write *no*.

1. He stacked the papers in such a careless way that when someone accidently bumped into the table, the stack fell to the floor. _____

2. She was so fearful of spiders that she was always the person that others asked to catch spiders and put them outside. _____

3. The carpenter inventively solved the problem of having a piece of wood with a hole in it by filling in the hole and strengthening the board with other materials. _____

4. The genie was so furious at Aladdin that he left him in the cave. _____

5. I had an appreciative feeling when nobody would help me look for my lost keys. _____

6. The powerless sailboat just sat in the middle of the lake since the wind wasn't blowing. _____

7. The president of the college added some humorous comments at the end of his speech to be sure audience members knew he was serious. _____

8. The hopeful boy would not go to bed until he saw whether his favorite basketball team won their game. _____

9. We worked in a cooperative group and argued over how to finish the mural for the playground. _____

10. He dangerously rides his bike only on roads with bike lanes and only when he wears a helmet. _____

Write a sentence for each word like the previous ones that you can answer with *yes*.

1. *decoratively*

_____

_____

_____

2. *careful*

_____

_____

_____

3. *hopeless*

_____

_____

_____

Glossary for *What's in Our Universe?*

A

African-American studies—the study of the history, culture, and politics of African-Americans, Americans who have ancestors from Africa

Andromeda Galaxy—the spiral galaxy that is closest to the Milky Way Galaxy

Apollo 11—a rocket ship that took three American astronauts to the moon in 1969

asteroid—a space rock, smaller than a planet, that orbits the sun (**asteroids**)

asteroid belt—an area between Mars and Jupiter where thousands of asteroids orbit around the sun in a shape like a belt

astronaut—a person who travels into outer space

astronomer—a scientist who studies stars, planets, and outer space (**astronomers**)

astrophysicist—a scientist who studies the physical characteristics of heavenly bodies (**astrophysicists**)

atmosphere—an invisible, protective blanket of air around Earth and other heavenly bodies

attraction—when things are drawn to move closer together

axis—an imaginary straight line through the middle of an object, around which that object spins

B

Big Bang Theory—a scientific explanation of how the universe began

billion—a very large number (**billions**)

booster rocket—one of two parts of a space shuttle that helps launch it into space by overcoming gravity (**booster rockets**)

C

chemical engineering—a field of study in which scientists use their knowledge of chemistry and how things in the natural world are made and interact

comet—a frozen ball of dust and ice that travels through outer space (**comets**)

constellation—stars that form a pattern or shape that looks like such things as a person, an object, or an animal as seen from Earth (**constellations**)

courage—bravery

E

eclipse—the blocking of the light from the sun by another heavenly body (**eclipses**)

Endeavour—a NASA space shuttle

especially—very much, particularly

exploration—the study of unknown places or things

G

galaxy—a very large cluster of billions of stars, dust, and gas held together by gravity and separated from other star systems by a large amount of space (**galaxies**)

gas giant—one of the large outer planets, Jupiter, Saturn, Uranus, and Neptune, that is composed of mainly hydrogen gas (**gas giants**)

gravity—a force that pulls things toward one another

H

Halley's Comet—a famous comet named for British scientist Edmund Halley that is visible from Earth with the naked eye every 76 years

health care—the prevention or treatment of illnesses by trained medical specialists

Hubble Telescope—a large telescope that collects information in space; It was carried into space in 1990 and will be there until 2014.

hydrogen—the most common gas in the universe, which is lighter than air and easily catches fire

I

imagine—to pretend

international—involving more than one country

L

launch—to send a rocket into outer space (**launched**)

M

manned—carrying and operated by people

matter—the stuff everything in the universe is made of; anything that takes up space

meteor—a piece of rock that burns very brightly when it enters Earth's atmosphere from space, also called a shooting star (**meteors**)

meteorite—a meteor that does not fully burn up in Earth's atmosphere and falls to Earth

meteoroid—a space rock, smaller than an asteroid, that orbits the sun (**meteoroids**)

Milky Way Galaxy—the galaxy that contains Earth and the solar system in which it lies

N

naked eye—your eye

NASA—National Aeronautics and Space Administration; an organization in the United States that directs space travel and research

O

observatory—a place used to observe the sun, moon, stars, and outer space (**observatories**)

orbit—the curved path something in space takes around another object in space; Planets move in an orbit around the sun. (**orbiting**)

P

Peace Corps—a group of American volunteers who carry out projects in other countries to help improve the lives of people living there

planet—a round object in space that orbits a star (**planets**)

Polaris—the North Star; the brightest star at the end of the handle of the Ursa Minor/Little Dipper that stays in the same place in the night sky all year long

probe—a tool used to explore something, such as outer space (**probes**)

R

research—the kind of equipment used to collect information through experiments

reusable—when something can be used more than once

rotate—turn about an axis or a center (**rotating**, **rotates**, **rotation**)

S

satellite—a natural or man-made object that orbits a planet or smaller object (**satellites**)

shuttle—to go back and forth from one place to the next (**shuttled**)

solar system—the sun, other bodies like asteroids and meteors, and the planets that orbit the sun

space shuttle—a manned spacecraft used for exploration

space station—a manned satellite that is made to be in outer space for a long period of time

sphere—an object shaped like a ball (**spheres**)

T

theory—a suggested explanation for why something happens (**theories**)

tilted—slanted or tipped to one side

U

unmanned—not carrying people

Ursa Major—the constellation named by Ptolemy that is also called Big Bear; It includes the Big Dipper.

Ursa Minor—the constellation made of seven stars named by Ptolemy that is also called Little Bear; It is the Little Dipper.

V

volunteer—a person who willingly performs a service without getting paid

W

weightlessness—to have little or no weight

Writing Prompts

Unit 7:

1. **Choose** a planet and make a list of facts you know about it.
2. **Determine** ways that life in space is different from life on Earth and write a paragraph stating why one would be easier than the other.
3. **Arrange** the sun, planets, moon, stars, and asteroids of the Milky Way in order.
4. **Select** a constellation and research facts about it. Write a paragraph including your research.
5. Research the Big Bang Theory and write a paragraph outlining facts that scientists know about it.
6. Writing as Dr. Mae Jemison, convince your readers to follow their dreams so they can one day be a good role model for young students.

Either fiction or nonfiction:

1. Summarize the story or chapter you read in three to five sentences.
2. After reading this story or chapter, I wonder...
3. Name three things you liked about the story or chapter.
4. Make a timeline of three to five events in your reading today.
5. Pretend you are a TV reporter who has to interview the main character or person in the story or chapter you read, and write down five questions you would ask.
6. Make a prediction about what will happen next in the story or chapter you just read. Explain why you think this will happen.
7. Pretend you are the main character or a person in the story or chapter you read today and write a diary entry for that person.
8. Tell about something in the story or chapter you read today that is similar to something you have already read.
9. Draw a Venn diagram to show what is alike and/or different between two characters or people in the story or chapter you read.
10. How does the title fit the story or chapter? Suggest another title.
11. Write down three new words you learned while reading and tell what they mean. Use each word in a new sentence.
12. Name three questions you would ask the author of the story or chapter.

Fiction:

1. Tell about the setting.
2. Tell about the plot.
3. Tell about your favorite character. Write three reasons why you chose that character.
4. Which character is your least favorite? Write three reasons why you chose that character.
5. Give examples of personification from the story.
6. Draw a line down the center of your paper. On one side write the title of your favorite story. On the other side write the title of whatever you read today. Compare and contrast the main characters, the settings, and the plots.
7. Write a different ending for the story.
8. If you could be any character in the story or chapter you read today, who would you be? Give three reasons why.
9. Invent a conversation or dialogue between two characters or people in the story or chapter that you read. Write what each character says and don't forget to use quotation marks.
10. Describe a character, setting, or plot that surprised you. Explain what it was and why it surprised you.
11. Tell about a problem that someone in the story or chapter had and what he or she did about it.

Nonfiction:

1. Describe something that you learned from what you read today.
2. Write at least three questions you have after reading the chapter about the topic in the chapter.
3. In three sentences, summarize what you read today.

Conference Record For Reader's Journal

Date: _____

Title of Book Student is Reading: _____

Is journal complete? Yes ___ No ___

Teacher notes:

Date: _____

Title of Book Student is Reading: _____

Is journal complete? Yes ___ No ___

Teacher notes:

Date: _____

Title of Book Student is Reading: _____

Is journal complete? Yes ___ No ___

Teacher notes:

Name: _____

Date: _____

Title of Book Student is Reading: _____

Is journal complete? Yes ___ No ___

Teacher notes:

Date: _____

Title of Book Student is Reading: _____

Is journal complete? Yes ___ No ___

Teacher notes:

Date: _____

Title of Book Student is Reading: _____

Is journal complete? Yes ___ No ___

Teacher notes:

Core Knowledge Language Arts

Series Editor-in-Chief
E. D. Hirsch, Jr.

President
Linda Bevilacqua

Editorial Staff
Carolyn Gosse, Senior Editor - Preschool
Khara Turnbull, Materials Development Manager
Michelle L. Warner, Senior Editor - Listening & Learning

Mick Anderson
Robin Blackshire
Maggie Buchanan
Paula Coyner
Sue Fulton
Sara Hunt
Erin Kist
Robin Luecke
Rosie McCormick
Cynthia Peng
Liz Pettit
Ellen Sadler
Deborah Samley
Diane Auger Smith
Sarah Zelinke

Design and Graphics Staff
Scott Ritchie, Creative Director

Kim Berrall
Michael Donegan
Liza Greene
Matt Leech
Bridget Moriarty
Lauren Pack

Consulting Project Management Services
ScribeConcepts.com

Additional Consulting Services
Ang Blanchette
Dorrit Green
Carolyn Pinkerton

Acknowledgments

These materials are the result of the work, advice, and encouragement of numerous individuals over many years. Some of those singled out here already know the depth of our gratitude; others may be surprised to find themselves thanked publicly for help they gave quietly and generously for the sake of the enterprise alone. To helpers named and unnamed we are deeply grateful.

Contributors to Earlier Versions of these Materials

Susan B. Albaugh, Kazuko Ashizawa, Nancy Braier, Kathryn M. Cummings, Michelle De Groot, Diana Espinal, Mary E. Forbes, Michael L. Ford, Ted Hirsch, Danielle Knecht, James K. Lee, Diane Henry Leipzig, Martha G. Mack, Liana Mahoney, Isabel McLean, Steve Morrison, Juliane K. Munson, Elizabeth B. Rasmussen, Laura Tortorelli, Rachael L. Shaw, Sivan B. Sherman, Miriam E. Vidaver, Catherine S. Whittington, Jeannette A. Williams

We would like to extend special recognition to Program Directors Matthew Davis and Souzanne Wright who were instrumental to the early development of this program.

Schools

We are truly grateful to the teachers, students, and administrators of the following schools for their willingness to field test these materials and for their invaluable advice: Capitol View Elementary, Challenge Foundation Academy (IN), Community Academy Public Charter School, Lake Lure Classical Academy, Lepanto Elementary School, New Holland Core Knowledge Academy, Paramount School of Excellence, Pioneer Challenge Foundation Academy, New York City PS 26R (The Carteret School), PS 30X (Wilton School), PS 50X (Clara Barton School), PS 96Q, PS 102X (Joseph O. Loretan), PS 104Q (The Bays Water), PS 214K (Michael Friedsam), PS 223Q (Lyndon B. Johnson School), PS 308K (Clara Cardwell), PS 333Q (Goldie Maple Academy), Sequoyah Elementary School, South Shore Charter Public School, Spartanburg Charter School, Steed Elementary School, Thomas Jefferson Classical Academy, Three Oaks Elementary, West Manor Elementary.

And a special thanks to the CKLA Pilot Coordinators Anita Henderson, Yasmin Lugo-Hernandez, and Susan Smith, whose suggestions and day-to-day support to teachers using these materials in their classrooms was critical.

Core Knowledge®

Credits

Every effort has been taken to trace and acknowledge copyrights. The editors tender their apologies for any accidental infringement where copyright has proved untraceable. They would be pleased to insert the appropriate acknowledgment in any subsequent edition of this publication. Trademarks and trade names are shown in this publication for illustrative purposes only and are the property of their respective owners. The references to trademarks and trade names given herein do not affect their validity.

All photographs are used under license from Shutterstock, Inc. unless otherwise noted.

Illustrators and Image Sources

Cover: Shutterstock; Title Page: Shutterstock; Take Home Icon: Core Knowledge Staff; 3.2: Core Knowledge Staff; 3.4: Core Knowledge Staff; 8.3: Shutterstock; 10.3: Core Knowledge Staff

Unit 7
Skills Workbook

Skills Strand
GRADE 3

The Core Knowledge Foundation
www.coreknowledge.org