

4<sup>th</sup> GRADE  
COMMON CORE

Reading  
Informational  
Standards

©Kristine Nannini

[www.youngteacherlove.blogspot.com](http://www.youngteacherlove.blogspot.com)

# Standards Based Assessment

## 4.RI.1

### Student Skills/Concepts and Vocabulary for 4.RI.1:

Core Content: Reading Informational: Key Ideas and Details

Standard 1: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

Skills and/or Concepts for Students:

*Students should be able to:*

- Explain the main ideas (either explicit or inferred) of a text.
- Summarize a text.
- Understand and explain what is directly stated in a text by citing specific details and examples.
- Explain inferences, conclusions, and generalizations by citing appropriate details and examples from a text.
- Select only relevant evidence from a text when responding either orally or in writing to questions about a specific text.
- Use evidence from the text to support your opinions about the text.
- Distinguish between fact and opinion and between important facts and unimportant details.

To be used  
with:  
4.RI.1

# Standards Based Assessment

## Coming to North America

*By: Kristine Nannini*

Some people think that the Pilgrims were the first Europeans to come to North America, but they weren't. English settlers arrived at Jamestown, Virginia in 1607. That was 14 years before the Pilgrims arrived in Massachusetts. But even the Jamestown settlers weren't the first Europeans to arrive in North America. The oldest city in America was started by Spanish settlers in 1565. So the history of Europeans in North America is much older than many people think.

Many explorers visited North America long before the Pilgrims. Vikings explored parts of North America as early as 1000 B.C., but they did not create any permanent settlements. Columbus reached North America in 1492, sailing across the ocean for the country of Spain. Other Spanish explorers followed shortly after Columbus, including Ponce De Leon in 1513 and Cortez in 1519. St. Augustine, the oldest city in America was founded by the Spanish in 1565. This was all before English settlers came to Roanoke in 1590, Jamestown in 1607, and Massachusetts in 1621. As you can see, many Europeans came to North America before the Pilgrims did.

The early explorers and the Pilgrims traveled to North America for much different reasons. The early explorers were searching for new lands, riches, and faster routes to other places. The early explorers did not plan to stay in North America and returned home after each trip. On the other hand, the Pilgrims that came to North America came to stay. They were English settlers that came to Jamestown and Massachusetts with no plans to return to England. Most of them spent their entire lives in North America, or the New World. As time passed, more English settlers continued to journey to North America and form colonies. The first colonies were a part of England, but eventually they broke away and their lands became the United States of America.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.1

## Standards Based Assessment

Score

**Instructions: Read the passage titled *Coming to North America* and answer the questions below.**

1.) According to the text, when was the oldest city in the Americas established?

- a.) 1492
- b.) 1519
- c.) 1565
- d.) 1513

2.) Which group does the text describe as being the first to explore North America?

- a.) Vikings
- b.) Spanish
- c.) English
- d.) Pilgrims

3.) Which word does the text use to describe the first Europeans to reach the new world?

- a.) explorers
- b.) settlers
- c.) Pilgrims
- d.) searchers

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.1

# Standards Based Assessment

Score

4.) How were the Pilgrims different than the early explorers that came to North America? Support your answer with details from the text.

---

---

---

---

---

---

---

---

---

---

5.) Why has the United States been so greatly influenced or shaped by English culture? Support your answer with details from the text.

---

---

---

---

---

---

---

---

---

---

# Standards Based Assessment

## 4.RI.2

### Student Skills/Concepts and Vocabulary for 4.RI.2:

Core Content: Reading Informational: Key Ideas and Details

Standard 2: Determine the main idea of a text and explain how it is supported by key details; summarize the text.

Skills and/or Concepts for Students:

*Students should be able to:*

- Determine the main idea of individual paragraphs or sections of a text.
- Determine the main idea either by identifying explicitly stated ideas or inferring implied ideas.
- Connect inferred and/or explicitly stated ideas from across the text to determine a main idea.
- Connect details or information and explain how they develop one main idea.
- Summarize an informational text both orally and in writing.
- Summarize a text in order to find the main idea and supporting information.

To be used  
with:  
4.RI.2

# Standards Based Assessment

## Test Pilots

By: Kristine Nannini

Air travel is a safe and reliable way to get around. Even though more people get injured every year in automobile accidents than in plane crashes, many people still feel much safer in a car than on an airplane. If there are so many people who are still afraid to fly after a century of air travel, imagine what people must have felt like when airplanes were new.

Airplanes have been around for over 100 years, but there are always new types of airplanes being developed. Even though we know that airplanes work well, we don't know how well new airplanes work until we test them. That is the job of the test pilot. Computers and simulators can tell engineers what a plane is supposed to do when it flies. However, the only real way to tell what it does is to actually fly it.

The Wright Brothers were two of the world's first test pilots, and they proved how dangerous it was to be a test pilot. In 1908, Orville Wright crashed one of his early planes. He was badly hurt, and his passenger was killed. Despite the tragedy, the Wright Brothers didn't stop testing planes. They continued to develop and fly their new airplanes for many years.

Some other test pilots were not as lucky as Orville Wright. In 1967, test pilot Michael J. Adams died when the rocket-powered airplane he was flying broke apart. Even though these crashes happened many years ago, test pilots still have a dangerous job today. In 2009, a veteran test pilot died while he was testing the Air Force's advanced F-22.

It takes a special kind of person to become a test pilot. They all know what could happen if the plane's parts don't work the right way. But one reason they decide to take the risk is because it's the only way to get valuable information about how new airplanes actually fly. Even with the risks involved, test pilots fly new airplanes every day. Air travel is extremely safe for the public because of them.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.2

## Standards Based Assessment

Score

**Instructions: Read the passage titled *Test Pilots* and answer the questions below.**

- 1.) According to the text, if air travel has existed for a century, why do we still need test pilots?
  - a.) The tradition of test pilots honors the Wright Brothers.
  - b.) Air travel is safer than automobile travel.
  - c.) Passengers expect airplanes to be well-tested.
  - d.) The only way to know exactly what a new plane will do in the air is to fly it.
  
- 2.) How is being a test pilot different than being a passenger on a regular airplane?
  - a.) Being a test pilot is safer than normal air travel.
  - b.) Normal air travel is much safer than being a test pilot.
  - c.) Passengers never fly on the types of planes that test pilots fly.
  - d.) Being a test pilot requires less training than being a passenger.
  
- 3.) Which word best describes the text's description of a test pilot's job?
  - a.) modern
  - b.) exciting
  - c.) fun
  - d.) dangerous



Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.2

# Standards Based Assessment

Score

4.) The text describes three test pilot tragedies. Determine the main idea of the passage and explain how these three tragedies support the main idea.

---

---

---

---

---

---

---

---

---

---

5.) Reread the second paragraph. Summarize the second paragraph by determining the topic and key details.

---

---

---

---

---

---

---

---

---

---

# Standards Based Assessment

## 4.RI.3

### Student Skills/Concepts and Vocabulary for 4.RI.3:

Core Content: Reading Informational: Key Ideas and Details

Standard 3: Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

Skills and/or Concepts for Students:

*Students should be able to:*

- Connect and explain the different types of relationships in a text.
- Understand the use of text features and organizational structures in a text.
- Use information and language from a text to explain an event, idea, or concept in a text.
- Determine the reasons for interactions between elements of a text (is one thing meant to show contrast to the other, complement it, explain it, etc.).
- Understand and explain how or why historical events, scientific ideas or "how to" procedures happen and use the text to support their answers.

To be used  
with:  
4.RI.3

# Standards Based Assessment

## **Lightning**

*By: Kristine Nannini*

A cloud may look like a single mass of fluffy, white smoke. However, each cloud is actually made from millions of tiny water droplets, ice crystals, and dust particles that all have tiny electric charges. As all the droplets, particles, and crystals rub together and bump into one another, they create much bigger electric charges. These highly-electrified clouds are the birthplaces of lightning bolts.

A cloud's built-up static electricity can come together to form a brilliant lightning bolt. These bolts can shoot down to the ground in almost an instant. Even though a lightning bolt is only an inch or two across, it is so bright that it can be seen from miles away. A lightning bolt is also very hot, with temperatures that can be greater than 30,000 degrees Fahrenheit. That's hotter than the surface of the Sun! Of course, lightning bolts carry dangerous amounts of electricity. For example, the power lines that you see in a neighborhood carry more than 7,000 volts of electricity. A typical lightning bolt carries about 1 billion volts. That's a lot of electricity!

The next time you see lightning streak through the sky, maybe you'll think of how it began in tiny bits of airborne water and dust. But, hopefully, you'll admire the lighting from a distance. While lightning is an incredible display of nature's power, it's also very dangerous. So when there's lightning outside, you should always stay inside.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.3

## Standards Based Assessment

Score

**Instructions:** Read the passage titled *Lightning* and answer the questions below.

- 1.) Which description of clouds does the author use that can explain why they are the birthplaces of lightning bolts?
  - a.) white smoke
  - b.) fluffy
  - c.) a single mass
  - d.) highly-electrified
  
- 2.) What do tiny particles in clouds do to create static electricity?
  - a.) come into contact with each other
  - b.) get very hot
  - c.) streak down toward the ground
  - d.) become extremely bright
  
- 3.) Which is not a reason that lightning can be very dangerous?
  - a.) It is only an inch or two across.
  - b.) Lightning is hotter than the surface of the Sun.
  - c.) It carries one billion volts of electricity.
  - d.) It shoots down to the ground in almost an instant.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.3

# Standards Based Assessment

Score

4.) Use information and details from the text to explain the physical process by which lightning is created and where it happens. Be specific.

---

---

---

---

---

---

---

---

---

---

5.) If clouds are made from such tiny particles, how can they carry so much electricity? Support your answer with details from the text.

---

---

---

---

---

---

---

---

---

---

# Standards Based Assessment

4.RI.4

## Student Skills/Concepts and Vocabulary for 4.RI.4:

Core Content: Reading Informational: Craft and Structure

Standard 4: Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

Skills and/or Concepts for Students:

*Students should be able to:*

- Use context clues to figure out the meaning of an unknown word in a text.
- Use common, grade-appropriate Greek and Latin affixes and roots to find the meaning of a word.
- Consult reference materials to find the pronunciation of a word to clarify its meaning.
- Understand and explain the difference between denotation and connotation of a specific word.

To be used  
with:  
4.RI.4

# Standards Based Assessment

## **Heredity**

*By: Kristine Nannini*

Have you ever wondered why your eyes are a certain color, or why your hair is curly or straight? These observable traits, or traits you can see, and other characteristics that you can't see, come from your parents. These are called inherited traits. Gender and hair color are examples of inherited traits. However, you can also inherit genetic diseases from your parents. The way that parents pass on traits to their children is called heredity. The study of heredity is called genetics.

You inherit traits from your parents. The traits are written inside of cells in your body, in a specific code. Individual traits are coded inside of genes. Everyone has different combinations of genes. These combinations of genes are what makes everyone completely unique, or different from everyone else. Your one-of-a-kind combination is called a genome.

Some scientists and researchers are interested in figuring out exactly which genes you inherited from each of your parents. Finding this information is difficult because some people can have a gene for certain traits even if they don't actually have those traits. These kinds of genes are called recessive genes. Another kind of gene is a dominant gene. If a person has a dominant gene and a recessive gene, that person will get the trait from the dominant gene.

Another reason that studying genetics is so complicated is that scientists have to study the tiny genes inside of microscopic cells to truly understand your genetic makeup. Scientists also have to gather information about a person's family in order to know exactly how the traits have been passed down through several generations. It can be difficult for scientists to gather this information because you get traits from your parents, who received traits from their parents, and so on. To fully understand how your genetic combination was formed, the pattern would have to be traced back to the beginning of your family tree.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.4

## Standards Based Assessment

Score

**Instructions:** Read the passage titled *Heredity* and answer the questions below.

1.) Using clues from the passage, which word below is a synonym for the word **characteristic**?

- a.) gene
- b.) trait
- c.) genome
- d.) observable

2.) Using clues from the passage, what does the word **inherit** mean?

- a.) to study heredity
- b.) to be dominant
- c.) to get something from your ancestors
- d.) to be recessive

3.) What is the code that holds all the information about a person's traits?

- a.) genome
- b.) heredity
- c.) characteristic
- d.) genetics



Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.4

## Standards Based Assessment

Score

4.) What are the two types of genes the author discusses in the text and how do they affect the traits a person will get? Support your answer with details from the text.

---

---

---

---

---

---

---

---

---

---

5.) The author uses the word **unique** in the second paragraph. What does the word mean? Which words or phrases from the text help you understand the meaning?

---

---

---

---

---

---

---

---

---

---

# Standards Based Assessment

4.RI.5

## Student Skills/Concepts and Vocabulary for 4.RI.5:

Core Content: Reading Informational: Craft and Structure

Standard 5: Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in a text or part of a text.

Skills and/or Concepts for Students:

*Students should be able to:*

- Understand and explain text features.
- Determine and explain how each paragraph in a text is organized (e.g., sequential/chronologically, cause and effect, problem and solution, etc.).
- Explain if and where the organization of a text changes in a particular passage.
- Determine and explain the main organizational structure of an entire passage.

To be used  
with:  
4.RI.5

## Standards Based Assessment

### **The Challenger and Columbia Disasters**

By: Kristine Nannini

In 1986 and 2003, the National Aeronautics and Space Administration (NASA) experienced two of its worst tragedies. The *Challenger* and *Columbia* disasters took the lives of fourteen brave astronauts. The disasters were different in many ways. However, they were caused by similar problems.

*Challenger* blasted off from Kennedy Space Center on January 28, 1986. Unfortunately, the shuttle broke apart after just 73 seconds. All seven crewmembers died in the explosion. NASA researchers collected pieces of the shuttle and discovered the problem. They determined that two rubber O-rings on the rocket boosters had failed. The low temperature on the morning of the launch had caused the rings to become hard and brittle. When the O-rings failed, flames from the rocket damaged the shuttle's fuel tank and caused the shuttle to explode.

On January 16, 2003, *Columbia* blasted off from the same launch pad at Kennedy Space Center. Unlike *Challenger*, *Columbia's* issue wasn't the O-rings. Its problems started when a piece of protective foam broke away from the shuttle's external fuel tank. NASA officials didn't know it, but the foam piece hit the wing and tore a small hole in the wing's heat protection shield. When *Columbia* finished its mission and returned to Earth, friction heated the air around the shuttle to over 2,000 degrees Fahrenheit. Some of this super-hot air rushed into the hole. As a result, the spacecraft burned up in the sky over Texas. Sadly, all seven crewmembers aboard *Columbia* died.

Different parts failed on the *Challenger* and *Columbia* shuttles. However, NASA's decision to ignore its engineers was the main cause of both disasters. Before each launch, NASA engineers voiced concerns about issues with the shuttle. However, NASA officials pushed aside the engineers' concerns. They had already delayed both missions several times, and were under pressure to launch on certain dates. As a result, officials ignored warnings that could have prevented these disasters.

The *Challenger* and *Columbia* disasters both shocked the American public. Sadly, each of these tragedies could have been avoided. In both events, NASA officials failed to listen to their engineers. If they had, they would have realized the danger with *Challenger's* O-rings and *Columbia's* heat shield.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.5

## Standards Based Assessment

Score

**Instructions: Read the passage titled *The Challenger and Columbia Disasters* and answer the questions below.**

- 1.) What is the text structure of *The Challenger and Columbia Disasters*?
  - a.) chronological
  - b.) problem and solution
  - c.) cause and effect
  - d.) compare and contrast
  
- 2.) What is likely the author's purpose for writing this text?
  - a.) to provide a chronological history of the NASA shuttle program
  - b.) to discuss how the *Challenger* and *Columbia* disasters were similar and different
  - c.) to point out the problem with space shuttles, and how NASA solved it
  - d.) to explain why NASA ended the shuttle program
  
- 3.) Which of the following sentences from the text contains a comparison?
  - a.) *Challenger* blasted off from Kennedy Space Center on January 28, 1986.
  - b.) However, NASA's decision to ignore its engineers was the main cause of both disasters.
  - c.) The low temperature on the morning of the launch had caused the rings to become hard and brittle.
  - d.) NASA officials didn't know it, but the foam piece hit the wing and tore a small hole in wing's heat protection shield.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.5

# Standards Based Assessment

Score

4.) What is one way that the causes of the *Challenger* and *Columbia* disasters are different? What is one way the causes of the disasters are the same?

---

---

---

---

---

---

---

---

---

---

5.) Authors often use signal words in their writing to explain how information, ideas, and events are related. How do the signal words from the text (*same, different, similar, both, each, and unlike*) help you identify the text structure?

---

---

---

---

---

---

---

---

---

---

# Standards Based Assessment

## 4.RI.6

### Student Skills/Concepts and Vocabulary for 4.RI.6:

Core Content: Reading Informational: Craft and Structure

Standard 6: Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.

#### Skills and/or Concepts for Students:

*Students should be able to:*

- Compare and recognize differences among presentations in a variety of formats.
- Recognize bias and learn about strategies that people use to attempt to mislead their readers and viewers.
- Differentiate between a firsthand and a secondhand account.
- Differentiate between a primary and a secondary source of information.
- Gather evidence from a text in order to compare and contrast a firsthand and secondhand account of the same event or topic.
- Understand and explain why information or details about an event or topic differ from one text to another.
- Make judgments about sources they find trustworthy.

To be used  
with:  
4.RI.6

# Standards Based Assessment

## **My Time in Basic Training**

*By: Kristine Nannini*

Everyone has seen images of Military Basic Training, or boot camp, in films or on television. The usual images show a lot of running, marching, pushups, as well as a yelling drill sergeant. None of those scenes are wrong. However, the movie and television idea of Basic Training often misses one of the most important parts: teamwork.

One thing the movies get absolutely right about Basic Training is that the yelling starts as soon as you arrive. From the moment I stepped off the bus with a load of other newcomers, or recruits, it began. An angry looking drill sergeant, or technical instructor, as they're called in the Air Force, began to yell at us. He explained how we didn't know anything about the Air Force, and how we were going to do everything wrong. Well, he was right. We couldn't do anything the military way. We couldn't march, stand at attention, or even line up right.

Before the first night was over, one recruit had already "cracked." The angry yelling, constant demands, and orders were too much for him. He didn't want to make his bed, so his first day in the Air Force ended up being his last day. There were a few others who lasted a little longer, but still didn't finish boot camp. It was probably a good thing that they found out sooner rather than later, that military life wasn't right for them.

As the weeks went on, the screaming didn't stop, and we began to march and run everywhere, wearing heavy boots and carrying loads of gear. We also began to learn the purpose of the difficult training. The marching, running, and exercising were all done together for a reason. The military can't operate as a single soldier, sailor, or airman. We learned this by doing everything together as a team. If one of us failed at something, it meant we all failed. But we all developed such helpful friendships, that we all ended up succeeding, eventually.

Sure, some of the people with whom I started with in Basic Training didn't graduate. They never became an airman like me, but most of my peers did, and we did it together. I know that my time in Basic Training prepared me for my four years in the military as part of one of the top aircraft maintenance teams in the Air Force. It also prepared my teammates for their important Air Force jobs that I'm sure they performed excellently, as part of a team, helping each other to succeed.

To be used  
with:

4.RI.6

# Standards Based Assessment

## Training for the Military

*By: Kristine Nannini*

Being in the military isn't your average job. In most average jobs, you don't have the possibility of getting shipped off to war, but another reason is the military's tough interview process. For most jobs, you meet with a boss, answer a lot of questions, and then you either get hired or you don't. After you join the military, you have to complete several weeks of grueling Basic Training, called boot camp, before you can officially get a military job. If you don't pass boot camp, you don't get the job. You get to go back to being a civilian or a normal citizen.

If you can't complete Basic Training, it means you don't have what it takes to be in the military. Many people who enlist, or try out, can't handle the way they are treated during Basic Training. Newcomers, or recruits, don't get asked to do something, they get told to do something, and they get told exactly how and when to do it. The telling comes in the form of constant, angry yelling. This might sound extreme, but military recruits are preparing to be soldiers who may go to war. They'll have to be able to handle some yelling.

The physical parts of Basic Training are also very tough. When recruits go somewhere, they run or march, no matter how far it is. They have to do sit-ups and pushups. They start early in the morning, often before the sun comes up, and they might run and exercise late into the night. This training is very important because they need to be prepared for some of the intense jobs they may have in the military. Driving a tank, repairing an airplane, or working on a submarine are all physically demanding jobs. So only the right people will be able to get the chance to do them.

Teamwork is important too. Basic Training brings all kinds of people together, from all different backgrounds. Sometimes not all of the recruits get along. But they have to put their differences aside and work together, because this is a glimpse into real life in the military. In the military, soldiers may not always get along with or like their co-workers, but they have to try to get along with them, work well with one another, and do their jobs to the best of their ability. If they can't do that in Basic Training, they won't be able to do it in a military job.

Of course, Military Basic Training is hard, because being in the military is hard. It's better to find out who shouldn't be in the military before they actually become soldiers. The people that can't make it through Basic Training are better off in other jobs. They could probably handle tough and demanding jobs, just as long as the demands aren't as intense as they are being a part of the United States Armed Forces.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.6

# Standards Based Assessment

Score  
\_\_\_\_\_

**Instructions: Read the passages titled *My Time in Basic Training* and *Training for the Military* and answer the questions below.**

- 1.) According to *My Time in Basic Training*, what does the author think about teamwork in the military?
  - a.) It will help every recruit be successful in Basic Training.
  - b.) It is not as important as physical training.
  - c.) Most recruits don't like each other in Basic Training.
  - d.) Recruits will either fail together or succeed together as a team.
  
- 2.) How do you know that the author of *Training for the Military* probably never actually trained for the military herself?
  - a.) The author doesn't discuss particular parts of Basic Training.
  - b.) The entire passage is a secondhand account, and the author provides no personal experiences.
  - c.) The author describes Basic Training in a negative way.
  - d.) The entire passage is a firsthand account, and the author provides a personal account of her experiences.
  
- 3.) Based on your reading of both passages, which passage is a firsthand account of military training, and what details from the text support this? Does the firsthand account give the reader more background information about military training or a better understanding of why military training is so hard?

---

---

---

---

---

---

---

---

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.6

# Standards Based Assessment

Score  
\_\_\_\_\_

4.) Which kinds of strategies does the author use in the text *My Time in Basic Training* that make the experiences real or believable? Support your answer with details from the text.

---

---

---

---

---

---

---

---

---

---

5.) How does the author of *Training for the Military* feel about the difficulty level of Basic Training? Use details from the text to describe what the author says about the reasons for Basic Training's level of difficulty.

---

---

---

---

---

---

---

---

---

---

# Standards Based Assessment

4.RI.7

## Student Skills/Concepts and Vocabulary for 4.RI.7:

Core Content: Reading Informational: Integration of Knowledge and Ideas

Standard 7: Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

### Skills and/or Concepts for Students:

*Students should be able to:*

- Understand and explain text features.
- Understand and explain the relationship between text features and the meaning or purpose of a text.
- Understand the use of different computer programs and how the programs can be used to help with solving problems.
- Become a responsible media user, and understand which types of media are reliable.

To be used  
with:  
4.RI.7

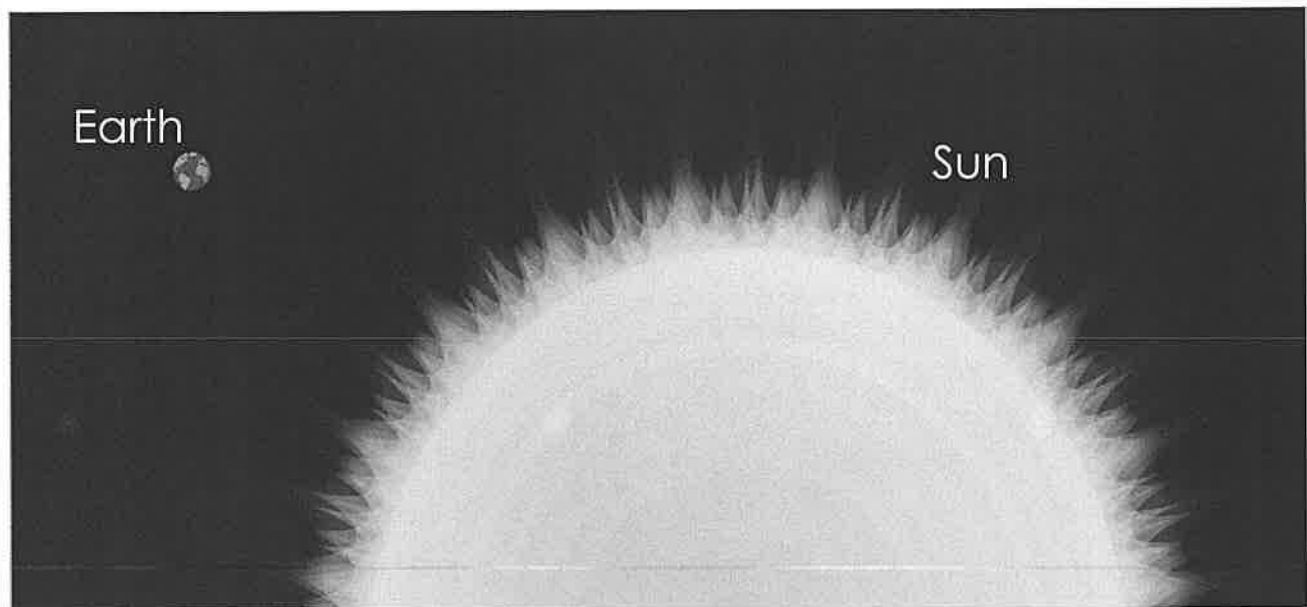
# Standards Based Assessment

## Measuring in the Solar System

By: Kristine Nannini

Measuring objects and distances in space is a lot different than measuring them here on Earth. Almost everyone knows that the Earth is not the largest object in the solar system. Objects in the solar system are so large and distances are so great that the numbers involved are huge. Even measuring things on a planetary scale can be unbelievable. For instance, you may live a few miles from school, but what if you had to travel around the entire Earth to get to school? That would be 25,000 miles!

If you could travel straight through the Earth, it wouldn't be quite as far though. That's just 8,000 miles. Now think about the Sun. Even though it's a fairly small star in cosmic terms, in relation to the Earth, it's enormous. At over 864,000 miles across, it has a diameter, or width, of about 109 Earths laid side by side. It also happens to be 93 million miles away. Your trip to school every morning should feel pretty short in comparison.



continued on the next page...

To be used  
with:  
4.RI.7

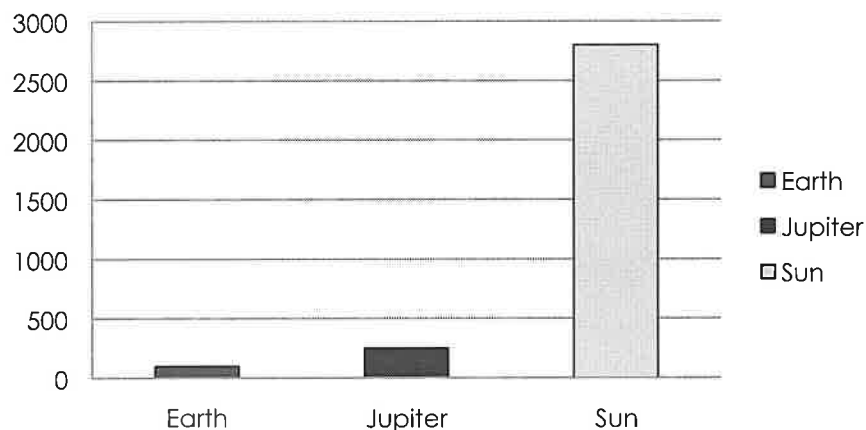
# Standards Based Assessment

## Measuring in the Solar System

By: Kristine Nannini

Distance isn't the only thing that increases as you move through the solar system. Since many objects in the solar system are much more massive than the Earth, those objects have more gravity than the Earth. Jupiter's gravity, for example, is 2.5 times stronger than the gravity here on Earth. But the massive Sun has 28 times more gravity than the Earth. That means if you weigh 100 pounds on earth, you would weigh 2,800 pounds on the Sun! That's pretty heavy.

### Your Weight Around the Galaxy



As far as our everyday lives are concerned, measurements on Earth can be pretty big. But we are part of something much bigger than just the Earth. Measuring other things around the solar system can be overwhelming. But then again, our solar system is just a tiny part of a galaxy that is so big that light takes 100,000 years to cross it. When you consider that light travels 186,000 miles every second, that's pretty big.

To be used  
with:  
4.RI.7

# Standards Based Assessment

B & W  
version

## Measuring in the Solar System

By: Kristine Nannini

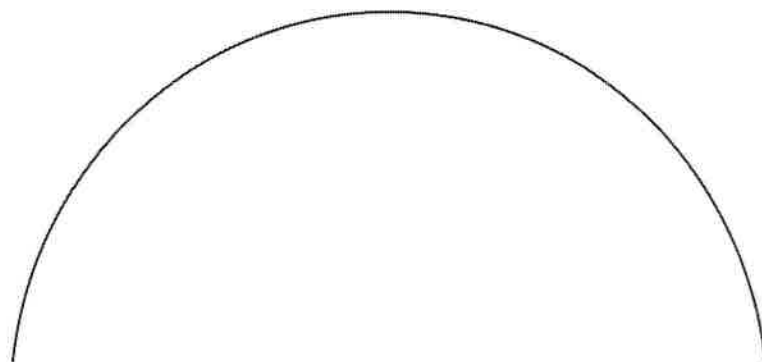
Measuring objects and distances in space is a lot different than measuring them here on Earth. Almost everyone knows that the Earth is not the largest object in the solar system. Objects in the solar system are so large and distances are so great that the numbers involved are huge. Even measuring things on a planetary scale can be unbelievable. For instance, you may live a few miles from school, but what if you had to travel around the entire Earth to get to school? That would be 25,000 miles!

If you could travel straight through the Earth, it wouldn't be quite as far though. That's just 8,000 miles. Now think about the Sun. Even though it's a fairly small star in cosmic terms, in relation to the Earth, it's enormous. At over 864,000 miles across, it has a diameter, or width, of about 109 Earths laid side by side. It also happens to be 93 million miles away. Your trip to school every morning should feel pretty short in comparison.

Earth



Sun



continued on the next page...

To be used  
with:  
4.RI.7

# Standards Based Assessment

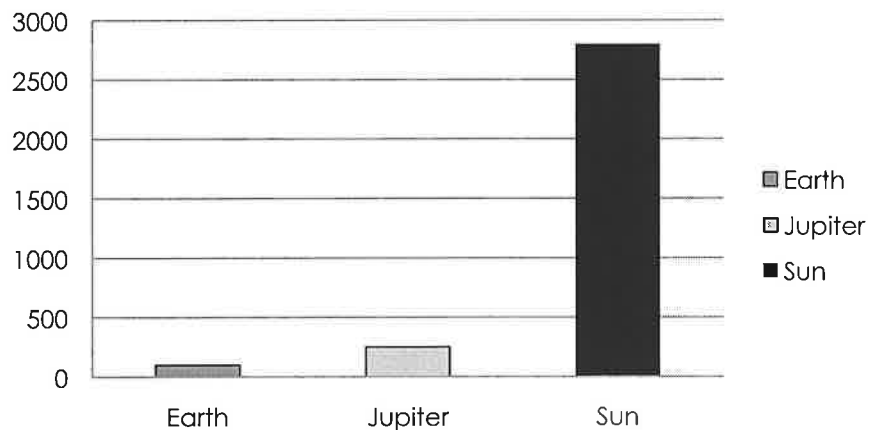
B & W  
version

## Measuring in the Solar System

By: Kristine Nannini

Distance isn't the only thing that increases as you move through the solar system. Since many objects in the solar system are much more massive than the Earth, those objects have more gravity than the Earth. Jupiter's gravity, for example, is 2.5 times stronger than the gravity here on Earth. But the massive Sun has 28 times more gravity than the Earth. That means if you weigh 100 pounds on earth, you would weigh 2,800 pounds on the Sun! That's pretty heavy.

### Your Weight Around the Galaxy



As far as our everyday lives are concerned, measurements on Earth can be pretty big. But we are part of something much bigger than just the Earth. Measuring other things around the solar system can be overwhelming. But then again, our solar system is just a tiny part of a galaxy that is so big that light takes 100,000 years to cross it. When you consider that light travels 186,000 miles every second, that's pretty big.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.7

## Standards Based Assessment

Score

**Instructions:** Read the passage titled *Measuring in the Solar System* and answer the questions below.

1.) Which is the smallest object mentioned in the passage?

- a.) Earth
- b.) Moon
- c.) Sun
- d.) Jupiter

2.) How much would you weigh on Jupiter compared to your weight on Earth?

- a.) 100,000 times more
- b.) 28,000 times more
- c.) 2.5 times more
- d.) 28 times more

3.) Which is the largest planet mentioned in the article?

- a.) Sun
- b.) Earth
- c.) The solar system
- d.) Jupiter



Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.7

# Standards Based Assessment

Score

4.) What does the author do to highlight the differences in measuring things on Earth versus measuring them throughout the solar system?

---

---

---

---

---

---

---

---

---

---

5.) How does the picture and graph help support the information in the text? Why do you think the author would include these visual aides?

---

---

---

---

---

---

---

---

---

---

# Standards Based Assessment

## 4.RI.8

### Student Skills/Concepts and Vocabulary for 4.RI.8:

Core Content: Reading Informational: Integration of Knowledge and Ideas

Standard 8: Explain how an author uses reasons and evidence to support particular points in a text.

#### Skills and/or Concepts for Students:

*Students should be able to:*

- Read a wide variety of texts to build background knowledge.
- Check multiple sources before arriving at a conclusion on a subject.
- Explain the relationship between organizational patterns of a text (e.g. how evidence is organized) and how they contribute to the meaning or purpose of a text).
- Understand and explain how an author uses proof to support a point in the text.
- Connect specific pieces of evidence to the corresponding point in a text.

To be used  
with:  
**4.RI.8**

# Standards Based Assessment

## **The Invention of Writing**

*By: Kristine Nannini*

When you think of great inventions, you may think of the airplane, the automobile, or the computer. These are incredible inventions, and the world would be a much different place without them. But what may be the greatest invention in the history of mankind is much older than any of these, or any other mechanical devices. If you think the world would be difficult without cars or computers, imagine what it would be like without writing. Written language is one of the great accomplishments humans have achieved, perhaps even the greatest.

You may not think of writing as an invention. However, written language is something that had to be created and developed by people. It has only been around for 5,000 years. Before this time, humans didn't write. Writing certainly wasn't created by a single person or a small group of people, like the airplane or the light bulb. But in my opinion, it must still count as an invention. It was something that a large group of humans created to solve problems.

Before written language was invented, every idea that anyone came up with had to be spoken. Spoken, or oral language, can become less accurate or exact as it passes from person to person. There is also a limit to how much an average person can remember. Complicated or very long ideas would be very difficult to share with others. Written language made this easier because it allowed ideas to be permanent, especially the first carvings in stone walls and tablets (this is where the saying "set in stone" comes from). It also allowed for very complicated ideas to be expressed, and for those ideas to travel easily between different people and locations.

Written language isn't like a high-tech robot or a solar powered battery, but it doesn't have to be a device to be an invention. Imagine trying to make a robot or a solar panel without the help of writing. So the next time you imagine that life would be difficult without cell phones, imagine where we would be if humans had never invented writing.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.8

## Standards Based Assessment

Score

**Instructions: Read the passage titled *The Invention of Writing* and answer the questions below.**

- 1.) What evidence from the text does the author use to support the point that the invention of writing is different than the invention of the automobile?
  - a.) Writing is not an actual mechanical device, but the automobile is.
  - b.) Writing was not created by people, but automobiles were.
  - c.) Automobiles did not have a huge impact on society, but writing did.
  - d.) People don't have to learn to use writing, but they have to learn to drive an automobile.
  
- 2.) What evidence from the text does the author use to explain that no one knows exactly when writing was invented?
  - a.) Some people may not think of writing as an invention.
  - b.) There are no historical documents that tell when writing was invented.
  - c.) Writing is an innovation created by people.
  - d.) It has existed for at least 5,000 years.
  
- 3.) Which is not an important advantage of written language that the author includes in the text?
  - a.) Writing can be portable or moved around.
  - b.) Writing allows for very specific language.
  - c.) Communications don't have to be memorized.
  - d.) Writing made it easier to express complicated concepts.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.8

# Standards Based Assessment

Score

4.) In the third and fourth paragraphs, the author makes the point that the world might be different if humans had never invented writing. How does the author use reasons and evidence to support this point?

---

---

---

---

---

---

---

---

---

---

5.) How does the author defend her point of writing being an invention? Support your answer with details from the text.

---

---

---

---

---

---

---

---

---

---

# Standards Based Assessment

## 4.RI.9

### Student Skills/Concepts and Vocabulary for 4.RI.9:

Core Content: Reading Informational: Integration of Knowledge and Ideas

Standard 9: Integrate information from two texts on the same topic in order to write or speak about the subject knowledgeably.

Skills and/or Concepts for Students:

*Students should be able to:*

- Synthesize the main points of two texts on the same topic.
- Synthesize key details of two texts on the same topic.
- Use evidence from informational text to support analysis, reflection, and research.

To be used  
with:  
4.RI.9

# Standards Based Assessment

## Arrival of the Interstate

*By: Kristine Nannini*

If you have a car and enough gas, you can get to almost any location in the United States. The United States is a massive country that is very easy to travel through, thanks to the Interstate System. But before the Interstate, it wasn't so easy to get from place to place. "Inter" is a prefix that means between. Interstates are highways that go between, or connect the states.

A popular belief is that President Dwight D. Eisenhower built the Interstate System as a way to allow the military to travel across the country in times of war. This idea is not entirely true, though Eisenhower's time in the military did convince him that America's roads needed a major overhaul. Eisenhower traveled across the United States as a young army officer. He was amazed at the poor shape of America's roads. Decades later, he traveled through Germany as a general in World War II. He was amazed at how easy it was to travel through Germany because of their sophisticated Autobahn, the German version of an Interstate. In 1953, Eisenhower became President. By 1956, the first parts of the Interstate were being constructed.

But Eisenhower didn't come up with the idea of a system of easy-to-travel, well-kept roads crossing the nation. He just took an earlier idea and put it into action. The Federal-Aid Highway Act of 1944 approved a cross-country highway system, but the act didn't actually approve construction to begin. President Eisenhower was able to get Congress to approve the Federal-Aid Highway Act of 1956, and this was when the Interstate System really got started.

To be used  
with:  
4.RI.9

# Standards Based Assessment

## Interstate Rules

*By: Kristine Nannini*

The Interstate System is not just a bunch of roads jumbled together. Paved roads had never been laid across the entire country before 1956. It was a huge expense, and its construction and upkeep have required some very specific rules and regulations. These rules are in place to ensure that we have an organized system that is easy to navigate.

One interesting Interstate rule is the length of the Interstate. The Federal-Aid Highway Act of 1956 originally approved 41,000 miles of Interstate road. Today, there are actually closer to 47,000 miles of Interstate. Several new rules and regulations had to be passed to allow the Interstate to reach that distance.

There are even very specific rules that determine how Interstates are to be named. There were already highways within states, and those highway names were designated by numbers. The Interstate System uses the same type of numbering system. However, the government made sure there are no Interstates and state highways that share the same number in the same state. Certain types of numbers are also used for particular directions. Interstates that run north-south are named with odd numbers, while east-west Interstates use even numbers.

There are many other Interstate rules, but most of them are set by each particular state. Because each state owns the Interstate within that state, the states set most of the rules about how the Interstates will be used. This includes speed limits and what kinds of vehicles can travel on the highways.

The Interstate is not just a set of randomly connected highways. Its purpose and construction were well planned. The United States could not have created such a great Interstate System without following a strict set of rules and regulations. These rules help drivers navigate our highways and have created a great system that is easy to understand.



Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.9

## Standards Based Assessment

Score

**Instructions: Read the passages titled *Arrival of the Interstate* and *Interstate Rules* and answer the questions below.**

- 1.) How many years passed between the first Federal-Aid Highway Act mentioned in the passages and Eisenhower's presidency?
  - a.) 12 years
  - b.) 9 years
  - c.) 3 years
  - d.) 7 years
  
- 2.) Which Interstate rule might be meant to help drivers from getting confused?
  - a.) limiting the total distance of Interstate
  - b.) not using numbers for Interstates that are already in use by other highways
  - c.) letting individual states set speed limits
  - d.) giving each state ownership of their section of Interstate
  
- 3.) Which of these reasons for the construction of the Interstate System is not mentioned in the passages?
  - a.) A law had already approved an Interstate System.
  - b.) Eisenhower had traveled across America before the Interstate was built.
  - c.) Many rules apply to the Interstate System.
  - d.) Eisenhower travelled on the German Autobahn.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.9

# Standards Based Assessment

Score

4.) How is the focus of one passage different than the focus of the other? How does the text structures of each passage help to show these differences better? Support your answer with details from the text.

---

---

---

---

---

---

---

---

---

---

5.) Both passages mention the Federal-Aid Highway Act of 1956. How does each passage show the importance of this law differently?

---

---

---

---

---

---

---

---

---

---

# Standards Based Assessment

## 4.RI.10

### Student Skills/Concepts and Vocabulary for 4.RI.10:

Core Content: Reading Informational: Range of Reading and Level of Text Complexity

Standard 10: By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

#### Skills and/or Concepts for Students:

*Students should be able to:*

- Read a wide variety of texts, including a variety of styles, genres, literary periods, authors, perspectives, and subjects.
- Choose texts from multiple genres, cultures, and historical periods.
- Demonstrate an understanding of complex, informational texts with diverse content, perspective and time periods.

To be used  
with:  
4.RI.10

## Standards Based Assessment

### **Is It Better to Go Green?**

*By: Kristine Nannini*

We live in an energy-hungry world. Almost everything runs on electricity, and people have to make the electricity we use. But it takes energy to make energy. Most of the electricity used in the world comes from burning fossil fuels. Typically, heat energy from the fossil fuels creates steam that runs turbines and electric generators. We burn a lot of fossil fuels, and that's not a good thing. Burning fossil fuels gives off harmful emissions that pollute the atmosphere. The more fossil fuels we burn, the more we pollute the air.

Going green seems to be the solution. It is supposed to create energy, but not pollution. Green energy uses a cleaner way to create energy, sometimes in ways that don't create any harmful emissions at all, at least not directly. Solar power is one promising zero-emission form of green energy. Solar panels, or photoelectric cells, transform light from the Sun into electricity. Nothing needs to be burned to power turbines or operate generators. The only things that you need are sunlight and solar panels. Solar power sounds like a perfect energy source, until you think about what it really takes to get solar power.

Solar panels are made of thin, shiny, film-like papers made of silicon. It takes a lot of work to make the shiny silicon solar panels, and a lot of energy. Silicon and other raw materials for the panels must be mined, or dug out from the earth and processed from sand. The process of turning sand and metal into solar panels happens in factories and plants that get their electricity from burning fossil fuels. The raw materials are also mined using equipment that runs by burning fossil fuels. So it takes a lot of pollution-releasing energy to make one solar panel that creates clean energy.

So, is solar energy really green energy? That's an argument that is yet to be settled. Early solar panels were very wasteful and more energy was used to make a single solar panel than it would ever create over its lifetime. But solar panels have advanced a lot and become much more efficient. They also create more electricity in sunnier locations, but they still require a lot of fossil fuel-created energy to make them.

Green energy is definitely a good idea and solar power will continue to become more advanced and more efficient, but it may never be a completely clean energy source. Similar problems apply to most forms of green energy. That raises a big question for many green energy arguments: Is green energy really worth it?

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.10

## Standards Based Assessment

Score

**Instructions: Read the passage titled *Is it Better To Go Green?* and answer the questions below.**

- 1.) What does the term "energy-hungry world" mean in the passage?
  - a.) It takes a lot of energy to produce energy.
  - b.) Humans need a lot of energy to power their technology.
  - c.) The atmosphere soaks in pollution made from burning fossil fuels.
  - d.) The Earth takes in energy.
  
- 2.) How is solar energy different from energy from fossil fuels?
  - a.) It doesn't take any energy to create solar power.
  - b.) Solar energy is very clean.
  - c.) Solar power creates light, not electricity.
  - d.) Solar energy doesn't use turbines.
  
- 3.) According to the passage, how are most forms of green energy alike?
  - a.) They don't use turbines or generators.
  - b.) They cannot be created without burning fossil fuels.
  - c.) They are completely clean.
  - d.) They get energy from sunlight.

Name: \_\_\_\_\_

Date: \_\_\_\_\_

4.RI.10

# Standards Based Assessment

Score

4.) The author explains how one form of energy is used to create another form of energy. Use information from the text to describe this process for the two forms of energy discussed in the passage.

---

---

---

---

---

---

---

---

---

---

5.) After reading the passage, why might someone agree that solar power sounds like the perfect power source? Support your answer with examples from the text.

---

---

---

---

---

---

---

---

---

---