Understand the Standards

When reading texts, you may occasionally come across a word you don’t understand. Take a look at these sentences.

A coyote stepped cautiously to the edge of the woods and carefully surveyed his surroundings, making sure all was safe. When he was certain no danger lurked nearby, he cantered, or trotted, to the center of the meadow, took up a position, and let forth a long, haunting howl.

Some readers may be confused by the words surveyed and cantered. They may not know the words. Plus, these may be multiple-meaning words. Readers may not know which of these meanings are being used in the sentences.

When you come across an unfamiliar word, you might look it up in a dictionary. However, there’s another, more convenient way to figure out the meaning. You can use context clues.

- A **context clue** is a hint within a sentence, or in surrounding sentences, that will help you infer, or figure out, what a word or phrase means.

  **surveyed**
  
  context clue: “his surroundings” and “making sure all was safe”
  
  meaning: looked carefully

  **cantered**
  
  context clue: “or trotted”
  
  meaning: trotted

There are many kinds of context clues that can help you figure out the meaning of unfamiliar words in a passage. Following are three of the most useful types.

- **Restatement**—The writer may tell you what a word means by restating it in other words.

  **Example:** The bird looked unhealthy because it was molting, or losing its feathers.
Lesson 1  Context Clues

- **Examples**—The writer gives examples to clarify the meaning of a word or phrase.  
  
  Example: The human body has many important organs, such as the skin, brain, and liver.

- **Comparisons**—The writer compares or contrasts a familiar word with a less familiar one.  
  Readers can use the clue to infer the meaning of the unfamiliar word.
  
  Example: Unlike the frigid outdoors, the cabin was warm and cozy.

**Guided Instruction**

The passage that follows contains some underlined words. The words will probably be unfamiliar to you. Look for context clues such as restatements, examples, and comparisons to help you figure out the meaning of unfamiliar words.

**Wolves**

Wolves are among the most controversial of all wild animals. Some people want wolves to be allowed to return to wilderness areas, but other people don't want wolves living in the wild. They want them eliminated altogether.

In fact, wolves were once nearly extinct in the United States; they existed in only a couple of isolated places. They had been killed by ranchers and government hunters who regarded them as threats to cattle and sheep and dangerous to people.

Wolves are among the most adaptable of animals. They can live in the bitterly cold lands of the far north as well as the hot southern parts of the United States. They will eat many different things. Their favored prey include deer, elk, and moose, but they can get by on almost anything, including rabbits, mice, birds, lizards, snakes, and even fruit, if that's what's available.

**Guided Questions**

Context clues are not always in the same sentence as the unfamiliar word. What are the context clues that help you understand the word controversial?

What kind of context clues help you determine the meaning of the word prey?
Each of these exercises contains one of the underlined words from "Wolves." Identify the context clues that help you understand the word. Then write a definition of the word.

1. eliminated
   Context Clue: ____________________________________________
   Definition: _______________________________________________

2. extinct
   Context Clue: ____________________________________________
   Definition: _______________________________________________

3. adaptable
   Context Clue: ____________________________________________
   Definition: _______________________________________________

On Your Own

In the following exercises, use context clues to determine the meaning of the underlined words.

1. In contrast to his reticent brother, Josh just wouldn’t stop talking.
   Context Clue: ____________________________________________
   Definition: _______________________________________________

2. The friends decided to convene at Megan’s house. They met there an hour later.
   Context Clue: ____________________________________________
   Definition: _______________________________________________
3 Adrian soon became a fixture, or regular member, of the theater group.

Context Clue: __________________________________________

Definition: _____________________________________________

What is another meaning of the word fixture? How did you identify the correct meaning of the word?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

4 The movie star arrived late. He was dressed incognito when he went to the restaurant. He wore a fake beard and a hat.

Which is the best clue to the meaning of incognito?

A "went to the restaurant"
B "wore a fake beard and a hat"
C "movie star"
D "arrived late"

5 Ames was breathing hard by the time he had walked to the top of the incline.

Which is the best meaning for the word incline?

A a slope
B a walk
C a race
D a stairway

6 A strong northerner will blow in this evening, bringing rain and cold temperatures.

Definition: _____________________________________________
7 Mia proposed a solution to the litter problem. She said everyone caught littering should spend a week cleaning up the school yard.

Definition:

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8 The salesman jumped happily down from the train. It had been a lucrative trip. He'd sold everything he took with him at good prices. Now he'd be able to buy his daughter the new coat he'd promised her.

Definition:

Context Clues:
From battlefield to cornfield: Using drones to track twisters

By Los Angeles Times, adapted by Newsela staff
Jun. 16, 2013 4:00 AM

Amelia Wilson, Nathan Woody and Alyssa Avery prepare their aircraft for flight at Oklahoma State University. Researchers at OSU are designing and building Kevlar-reinforced drones to fly into the worst storms and send back real-time data to forecasters about how fierce they might become.

An advance warning for a tornado means minutes, not hours. People in Moore, Okla., on May 20 got 16 minutes.

In Newcastle it was only five minutes. That was the town nearest to where the tornado first formed. The mile-wide twister killed 24 people.

Tornadoes used to strike without any warning at all. Weather forecasters have worked since the 1970s to get the average warning time to 13 minutes. They use weather balloons, radar and people watching from the ground.

Now they want to give people hours of warning—not just minutes. To do this, they want to send aircraft with no pilots right into a developing storm. Those unmanned aircraft are also called drones. Pulling that off would require more than the right technology. The government would need to be more flexible about rules that block most unmanned flights.
Spying On Storms

Most of the work on unmanned aircraft vehicles has been for military strikes or spying so far. But researchers are looking to use them in science. That includes researching severe weather like tornadoes.

Oklahoma is one of the states leading the charge. That make sense. Nineteen tornadoes touched down there in the last two weeks of May alone. Engineering teachers and students at Oklahoma State University are building and designing special aircraft to survive high winds. Weather researchers at the University of Oklahoma are building sensors and advising the OSU researchers.

“We have the unmanned aircraft expertise, we have the weather expertise and, by golly, we have the weather,” said Stephen McKeever, an Oklahoma government and university official. “In many senses, we’re the perfect laboratory to do this kind of thing.”

The small aircraft weigh up to 55 pounds. They can cost from $10,000 to $100,000. They are remotely controlled from the ground by a pilot. Sensors would collect data on temperature, humidity and pressure. This is essential information for predicting a tornado.

Researchers also plan to improve forecasting by monitoring the atmosphere before and after storms form.

Twister Delays A Test Flight

Oklahoma State professor Jamey Jacob first started working on drones to explore Mars in the 1980s. His focus has shifted to twisters and the questions still puzzling scientists: how, why and when tornadoes form.

“If you live in Oklahoma, you have an interest in tornadoes,” Jacob said.

Jacob guides teams of students on design and assembly. One team had scheduled for May 20 a test flight for an aircraft built for a government public safety drone program. But that was the day the tornado hit Moore. They delayed the flight by two days and successfully launched the plane into clear skies.

The aircraft also can be used to help fight wildfires, protect crops and inspect pipes. Quiet ones can also be used to locate survivors after a disaster, because they would not drown out cries for help from the wreckage.

The technology is also safer than storm chasing when it comes to confirming there is a tornado. That is a big deal. Three veteran storm chasers and researchers just died in a tornado that struck the Oklahoma City suburb of El Reno.
Oklahoma Gov. Mary Fallin created a committee on unmanned aircraft two years ago.

The committee met May 31, hours before the El Reno storm hit the Oklahoma City area. Committee members discussed the severe weather predicted for that night. They knew what information they could gather if only they could get aircraft in the air.

But right now it is illegal to operate unmanned aircraft in U.S. airspace.

Some groups can ask for a special certificate to fly the aircraft. But then the government requires notice of 48 hours before the aircraft actually goes up. The government also says that the pilot must keep the aircraft in his or her sight at all times. This is impossible when it comes to tornadoes that form within hours and are hidden by rain.

Researchers say they are frustrated at how long it takes to change the rules.

A Christmas Present?

But changes are coming. In a 2012 law, Congress set up a way to let unmanned aircraft into U.S. airspace by September 2015.

The government is preparing to set up six test sites around the nation for the research and development of unmanned aircraft. Officials have received 50 applications from 37 states, including Oklahoma. Decisions are due in December.

What are the benefits of unmanned aircraft? What are the disadvantages? Explain why the United States doesn't allow these types of aircraft.
Imagine that you are reading an article to find information for a science report. You come across this statement.

A meteor burns up as it falls through Earth’s atmosphere just like an ice cube melts when it is dropped on a warm surface.

The author is using word relationships to explain an idea. An analogy is a comparison that explains one word or idea by comparing it to something else that readers may know more about. In the example, the author compares a meteor passing through the atmosphere to an ice cube melting on a warm surface. The analogy gives readers another way to understand what happens to a meteor.

When a writer does not provide a word relationship, readers may want to create one for themselves to help them better understand what is being said. Look at this example.

When lightning struck the telephone pole, a powerful pulse of electricity followed the electric circuit right into the house, burning out my computer.

To clarify what happened, a reader might create an analogy. Electricity follows an electric circuit. A circuit must be a pathway, like railroad tracks that control where a train can go.

Word relationships are often useful for figuring out the meaning of words and ideas and for seeing how ideas in a passage are connected and why they’re important.

Word relationships are often expressed as an equation like this one:

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    cricket : insect :: apple : fruit
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The words on each side of the :: have the same relationship. You would read this equation as “cricket is to insect as apple is to fruit.” In other words, a cricket is a type of insect just as an apple is a type of fruit.

There are different kinds of word relationships. Here are some common ones.

- cause/effect: storm : rain :: school : education
- part/whole: tire : automobile :: page : book
- item/category: sparrow : bird :: Earth : planet
Guided Instruction

Read the passage. As you read, look for cause/effect, part/whole, and item/category word relationships.

The Water Cycle

The water cycle doesn't have a beginning or an end; it's like a bicycle tire that goes round and round without end. Because the water cycle has no beginning or end, a description of it could start anywhere, so in this case, we'll start with a process called evaporation. This is the process during which water is turned into a gas called water vapor. You've often seen it take place, such as when water boils. The steam that rises is a type of water vapor.

Air currents carry the water vapor high into the sky where temperatures are cooler. As the water vapor cools, it condenses into tiny water droplets, which appear as clouds.

As clouds combine and temperatures get cooler, the water droplets combine into larger droplets. When the cloud can no longer hold the water droplets, they fall toward Earth as precipitation. This precipitation occurs in different forms, such as rain, snow, and fog.

As precipitation falls, it is absorbed into the ground and gathers in gutters, streams, rivers, and lakes and is used by plants, animals, and people. Eventually, the water will once more evaporate and turn into clouds, completing the water cycle.

Guided Questions

What is the cause of vapor condensing into droplets?

In the fourth paragraph, what are some items in the category of "things that gather water"?

What are the parts of the water cycle?

Complete the following exercises based on the passage.

1. How is the water cycle like a bicycle tire?

2. What is the relationship between the terms steam and water vapor in the following analogy? Provide a word that will complete the analogy.

steam : water vapor :: ______ : precipitation
On Your Own

For items 1–4, read the short passage and then the analogy. In the space provided, write a word that completes the analogy.

1 Erosion occurs when rain washes away the soil. It's like rubbing a piece of lumber with sandpaper. Little by little, the wood is worn away.

rain : soil :: sandpaper : ___

2 Robin wrote the final stanza of a poem she had been working on all afternoon. Then she relaxed by reading the first chapter of a book she had gotten from the library.

stanza : poem :: chapter : ___

3 Trout are fish that inhabit cold, fast-moving streams of North America.

trout : fish :: pigeons : ___

4 The ship was 20 years old, but a fresh coat of paint made it look new, and a new mast made it seaworthy. The owner stepped on board just as the bell in the church sounded one o'clock.

mast : ship :: bell : ___

5 Sarah was a good athlete and especially enjoyed team sports.

Which sport would Sarah enjoy least?

A baseball
B basketball
C jogging
D soccer
In college, but homeless
By Atlanta Journal-Constitution, adapted by Newsela staff
Mar. 06, 2014 5:00 AM

Samuel Robinson, who is a homeless student, studies at the library, where he spends most of his time, on the Kennesaw State University campus, Feb. 5, 2014, in Kennesaw, Ga.

ATLANTA—Things were going well for college student Javon Butts.

Most days, it went like this: Start classes at 8 a.m., finish up around noon, then head off to work. His life as a student at Kennesaw State University (KSU) was far from perfect. But he was able to handle it.

And then his car broke down.

The car wasn’t just a way to get around. It was his home as well.

He’s not alone, says Marcy Stidum. She runs KSU’s CARE center, which helps homeless students.

Can’t Afford Housing

Most colleges have students like Butts. They attend classes each day, do their schoolwork and blend in. But when other students go home at night, they have nowhere to go. They turn to their cars, school buildings and the couches or floors of friends.
Georgia is developing a program to help its homeless students. But for now, KSU is the only Georgia college with someone like Stidum.

“People say these students aren’t homeless, they are in college,” said Stidum. It is true, she said, that the cost of their classes is covered. But it’s the other things like housing they can’t afford. They are “living in their car and starving.”

Since fall 2011, the college’s CARE center has helped 61 homeless students. Including Butts.

Twenty-year old Butts is a second-year student from Gainesville. He came to KSU in 2012 after transferring from a South Carolina college.

Back then Butts lived in at KSU. His home was in a building with bedrooms for students called a dorm.

Providing Support

But before he paid the third month’s rent, his mother and sister asked him for help with their bills. Butts gave them his rent money. Unable to get the money back, he got further and further behind on his rent. Eventually, he was kicked out of the dorm.

“I wanted to look out for them,” he said. But, he said, he’s come to realize that “you have to look out for yourself.”

During the 2012—2013 school year, more than 58,150 college students nationwide said they were homeless. But the real number is probably larger. Some students living on friends’ couches, for example, don’t consider themselves homeless. And others are too embarrassed to say anything.

Under Georgia’s new program, each college will have someone like KSU’s Stidum. They will provide support for homeless students.

These days Butts keeps pretty much to himself. The less other students know about his situation, the better. He has a hotel room but can’t afford it for long. With Stidum’s help, he is looking for a cheaper apartment. Once he has saved up enough money he plans to move back to a KSU dorm in the fall.

People like Stidum can already be found in other states. They not only help homeless students deal with college. They also teach life skills, such as paying bills.
“It’s Embarrassing”

That type of help is aiding students like Samuel Robinson, 38. He has been homeless for more than a year.

He didn’t start out that way. After graduating from high school, Robinson worked low-paying, unskilled jobs for a while. He then left small-town Georgia for better opportunities in the Atlanta area. But again he found only low-paying work. He enrolled at KSU in 2010, and was slowly working his way through school. In 2012, he lost his job.

Stidum is helping Robinson figure out how to pay off the money he still owes KSU. Robinson hopes to catch up in time to sign up for summer classes. He is still living with friends. But now he has a job again.

Like Butts, Robinson never told his family about his struggle.

“I don’t want pity,” he said. “It’s embarrassing to be an adult and be homeless.”
1. According to the article, most homeless students sleep in all the following places EXCEPT:
   (a) they sleep in their cars
   (b) they sleep in school buildings
   (c) they sleep in cheap hotel rooms
   (d) they sleep on floors of friends' places

2. How does KSU's CARE center help homeless students?
   (a) by enrolling them in free summer classes
   (b) by providing loans at cheaper rates
   (c) by teaching them life skills
   (d) by providing low-paying jobs

3. Select the paragraph from "Providing Support" that supports the main idea of the article.

4. Which of the following is MOST important to include in a summary of the article?
   (a) He's not alone, says Marcy Stidum.
   (b) People like Stidum can already be found in other states.
   (c) That type of help is aiding students like Samuel Robinson, 38.
   (d) Stidum is helping Robinson figure out how to pay off the money he still owes KSU.

5. Why do you think Samuel Robinson describes his situation as "embarrassing"? How do students become homeless? Explain.
Long before the telephone, television, and the Internet, a greater invention changed the world and our way of communicating forever. We hardly talk about or even use this invention now, but in the 1800s it was a miracle and had a greater impact on communications than the Internet! It was the **telegraph.**

(1) For hundreds of year men dreamed of communicating over great distances. Messages sometimes took weeks, months, or even years to arrive and communication was slow and uncertain. Humans were especially interested in sending messages across the great Atlantic Ocean.

(2) A young American, Samuel Morse, decided way back in 1812 to try and make this dream come true. He hoped to do something practical about the need to send messages quickly, and he was determined to succeed.

(3) Morse was first of all an artist — and a very fine one. But his painting has been placed second to what he did in another line. Born in 1791, Morse attended Yale University as a young man. He wrote home that he enjoyed all his studies “especially lectures on electricity.” He also said that he was spending all his spare time painting miniatures, or little pictures, on ivory. The study of electricity, however, was his chief hobby. He was always searching for scientists who were experimenting with the new “fluid.”

(4) At first Samuel’s parents did not want him to make a career of painting. But in the year 1810, when Samuel was 19, his work won the praise of the famous artist, Gilbert Stuart. So Samuel’s parents let him study art in England.

(5) For a time after his return to America in 1816, Samuel Morse made a good living painting portraits. When a depression came, however, he was not able to make much money selling pictures anymore.
Samuel tried to continue with his painting, but he did not succeed in getting the chance to do wall paintings for the Capitol building in Washington, DC. Discouraged, he gave up art and his job as a teacher at New York University. He decided to spend all his time and energy on the development of his Telegraph (he always used the capital T).

By now he was living in his studio in New York University. He was too poor to pay the rent for an apartment. To save money for his experiments, he cooked his own meals.

Eventually, only two steps remained to complete the first successful telegraph. Morse had the genius to add both the needed steps. One step had to do with the way of making the dot-dash message move through the wires using electrical current. The final step was the Morse code itself. This code is the dot-dash system of writing and sending messages, using dots and dashes instead of letters. In working out the code, Morse was aided by his partner, Alfred Vail.

On January 24, 1838, in his studio at the University, Morse showed how to send messages in Morse code. Five years of work and many disappointments followed. Finally in 1843 the US Congress provided $30,000 for the building of the first telegraph line—a 40-mile line from Washington to Baltimore.

In 1844 the first telegraph line was completed. The famous message, "What hath God wrought," was sent to Baltimore. Other men with money became interested in the new way of sending messages so fast. By 1848, there were 1,269 miles of telegraph in use in the United States.

Having built a telegraph system on land, the next step was to have telegraph cables across the Atlantic Ocean. For many years, people laughed at the idea. It was only after three failures that a successful cable was laid across the Atlantic in 1866 by a group of business people.

Morse received honors and wealth for his invention of the telegraph. However, later inventions that improved on the telegraph, such as the radio, telephone, television, and Internet took the place of his work. Morse died in 1872, within a few days of his 81st birthday. He was grieving at the time that his work as a painter was not appreciated. Today his paintings are considered beautiful, and his artistic works become more valuable each year. He is now thought of as one of the world's greatest painters of portraits. Nothing would have pleased him more.
Directions: Answer the questions below from the informational text “The Genius of Samuel Morse.” You may refer back to the text and information given in the reading if you need to. Follow the directions for each section.

A. After each year listed below, write why that date was important in the life of Samuel Morse and in the story of the telegraph.

1791
1810
1838
1843
1866
1872

B. Write the number of the paragraph that has the statement below as a focus.

1) _______ Morse code was created.
2) _______ A telegraph cable was laid across the Atlantic Ocean.
3) _______ Morse is finally appreciated as a great painter.
4) _______ Samuel and his parents agreed he could study in England.
5) _______ Morse was struggling to survive on little money.
6) _______ Samuel decides to create a quick way to send messages.

C. Answer each multiple-choice question below. Circle the correct answer.

1) If Samuel Morse was a student in your school, what do you think his two favorite subjects would be? Choose two from the list below:

A) Mathematics    B) Art    C) History    D) Science

2) What do you think is the likely reason Samuel Morse was not involved in the laying of the telegraph cable across the Atlantic Ocean?

A) He was not alive when the Atlantic Ocean cable was completed.
B) Samuel Morse was very old by that time.
C) Morse was busy with his painting and art instead of inventions.
D) He was working on creating Morse code instead.
3) What evidence is there in the text that Samuel Morse came from a wealthy family?

A) He attended Yale University, which was very famous and expensive.
B) Morse was able to afford to travel to England to study art.
C) The text says that Samuel had a large inheritance left by his parents.
D) Both A and B above are correct.

4) Why is Samuel Morse not as well known or studied today as he was before? Make an inference.

A) He became a famous portrait artist and people forgot about his invention of the telegraph.
B) Morse lived long ago, and most people in the past are forgotten.
C) Morse’s invention has been replaced by better ways of communication and is no longer used.
D) Samuel Morse did not leave any writings about his life and works.

5) What can you infer might have happened if Samuel Morse had been more successful as a young portrait artist? Choose the best answer.

A) He would have been remembered as a greater artist than Gilbert Stuart.
B) Samuel Morse would have become very wealthy as a painter.
C) Morse would have become an art teacher.
D) Samuel Morse would not have spent time and energy inventing the telegraph.

Challenge: The telegraph and Morse code have been replaced by computers and faster electronic communication. Investigate and find examples of other great inventions of past times that are no longer in use (obsolete). Try and find examples from the last 50 or so years. Write about your obsolete great invention below, including what it is called, when it was invented, and why it is no longer used.
Guided Instruction

Read the passage. Identify examples of personification. Then answer the questions.

A Fish Story

1. Dad and I aren't just father and son, but also close friends, and I think a lot of that comes from being fishing buddies. For as long as I can remember, we've gone fishing together. Every trip has been fantastic, but our last one was especially memorable. It was a warm but cloudy day in the early fall, and the river was calling to us as we pushed the boat into the current.

2. We call our fishing boat Stella, and she's treated us really well. We've taken her out hundreds of times in all seasons and caught hundreds of fish out of her.

3. On this particular day, we were fishing for salmon, and I hooked one that I'll always remember. It hit hard, leaped into the air, and then ran directly under the boat as if he was playing with me. Dad pulled Stella around to get my line out from under the boat, and then I began working that fish. He'd sit really quiet for a full minute or more, and then he'd make a run that would almost yank the rod out from between my hands.

4. It was quite a fight as that fish ran and then stopped, ran and then stopped. I kept pulling on the line, trying to tire him out, and for a long while, I didn't think it was working. I told Dad I thought he was laughing at me, but Dad said to just be patient and let him get tired.

5. It took almost an hour, but finally I got the fish into a net. I'll always think of him as Monster, because that's exactly what he was.

Guided Questions

What human quality is given to the river in paragraph 1?

Why does the writer refer to the boat as "she" in paragraph 2?

Paragraph 5 contains a type of figurative language, but it's not personification. Explain how language is being used in a figurative manner. Do you think it is effective? Why or Why not?
Lesson 4  Personification

1. What is personified in paragraph 1? How do you know?

2. What is personified in paragraph 2? How do you know?

3. What is personified in paragraph 3? How do you know?

4. What is personified in paragraph 4? How do you know?

On Your Own

For items 1 through 3, read the examples and tell what is personified and what human qualities it has.

1. Have you ever felt that a computer is out to get you? It crashes at exactly the wrong moment and just seconds before you planned to back everything up.

2. The girl hid behind a tree to watch the pool, hoping to see the frog appear. After a long wait, the frog swam out from a rock and pulled himself up on a lily pad. The frog turned, looked directly at her, and greeted her with a smile and a wink.
3. The fly circled his head, stubbornly ignoring his attempts to shoo it away.

4. Which line has an example of personification?

   line 1  The fog rose slowly from the river.
   line 2  It blew across the fields
   line 3  And it drifted through the streets
   line 4  And it strangled the houses of the town
   line 5  Before indifferently moving on.

   A  1
   B  2
   C  3
   D  4

5. Which words describe a human quality not usually associated with a rock?

   The rock lay squarely in the pathway. Wet with dew, it was slippery and hard. It waited patiently for someone to trip over it.

   A  lay squarely
   B  wet with dew
   C  slippery and hard
   D  waited patiently

6. An author describes the branches of a tree as “swishing joyfully in the wind.” How does that description make you feel about the tree?

7. Rewrite the following sentence using personification.

   The rabbits hopped through the meadow.
Choose any poem that uses personification. You may ask your teacher to recommend poems. On a separate sheet of paper, identify the personification in the poem and write down how it makes you feel. Now, in a small group, share your poems with each other. Ask your group members to identify any examples of personification in your poem. Then, ask your group members about the emotions they get from each example.