

Mrs. Cwalinski and Mrs. Starkey

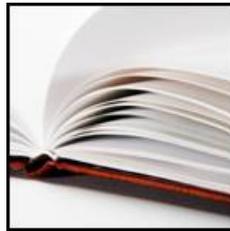
1. Go to <http://www.mfcsd.k12.oh.us/>
2. Under teacher/parent resources select ProgressBook
3. Select Martins Ferry
4. Log on with
 - Username: firstnamelastname (for example, shaylastarkey)
 - Password: ridlunch#
5. Click on the planner tab
6. On this tab you can access all assignments. Each subject's assignments can be accessed and completed all online.

Unit 16: Synonyms, Antonyms, Homophones, and Homographs

Text:

[PDF File](#)

SYNONYMS, ANTONYMS, HOMOPHONES, AND HOMOGRAPHS



Unit Overview

In this unit, you will learn about synonyms, antonyms, homophones, and homographs. You will learn to use context clues to figure out the meaning of these types of words.



Synonyms

Synonyms are words that have the same or almost the same meaning. In a previous unit, you learned to use a thesaurus to put more mature-sounding words into your writing. The mature-sounding words that you chose were synonyms of the more common words that people often use. The table below shows some pairs of words that are synonyms.

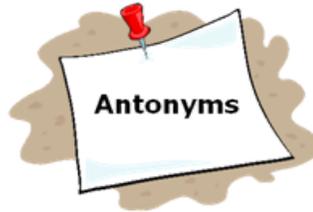
Synonym Pairs	
rip	tear
laugh	giggle
home	house
sleep	snooze

jump	leap
angry	mad
gaze	stare
big	large

To replace a word with a synonym, choose a word that has a very similar meaning. You can use a thesaurus to find synonyms, or you can use a website such as <http://www.synonym.com>.



Now go to the questions section and answer questions 1 through 7.



Antonyms

Antonyms are words with opposite meanings. A thesaurus can also be used to find antonyms. The table below shows some pairs of words that are antonyms.

Antonym Pairs	
short	tall
smile	frown
brave	cowardly
far	near
crooked	straight
rough	smooth
silly	serious
mountain	valley

You can use a thesaurus to find antonyms, or you can use a website such as <http://www.antonym.com>.



Now go to the questions section and answer questions 8 through 13.



Homophones (Homonyms)

Homophones (also called homonyms) are words that are pronounced the same but have different meanings. The two sentences below contain the homophones **blew** and **blue**. The words are pronounced the same, but they have very different meanings. Read the two sentences below.



The wind **blew** the trees.



The **blue** car sped down the road.

In the first sentence, blew has to do with the wind. In the second sentence, blue is the color of the car. While the two words sound the same, the meanings are very different. The chart below shows some homophone pairs and sentences to help you figure out the meanings of the words.

Homophone Pairs	
pair	She bought a new pair of shoes.
pear	He put a pear and an apple in the fruit salad.
know	I don't know the answer.
no	There is no way to answer that question.
whole	He ate the whole sandwich for lunch.
hole	The dog dug a hole so that he could bury his bone.

would	I didn't think that you would be here.
wood	We bought wood to build our new porch steps.

Sometimes common sense will help you figure out which word to choose. Other times you will need to use a dictionary to determine the meaning of a word.



Now go to the questions section and answer questions 14 through 20.

Homographs

Homographs are words that are spelled the same but have different meanings. The two sentences below contain the homographs **sink** and **sink**. The words are spelled the same, but they have very different meanings. Read the two sentences below.



I put the dishes in the kitchen **sink**.



The flood waters caused the boat to **sink**.

In the first sentence, **sink** means the place where you find running water. In the second sentence, **sink** means to force something to go under the water. While the two words are spelled the same, their meanings are quite different. The chart below shows some homograph pairs and sentences to help you figure out the meanings of the words.

Homograph Pairs	
leaves	In the fall, Adrienne leaves for college.
	In the fall, the leaves on the trees change colors.
hard	The test questions were extremely hard.
	The mattress was too hard to sleep on.
coat	Dad decided to add one more coat of paint to the room.
	I wore my winter coat when we went skiing.

pound

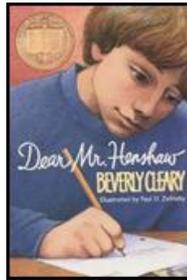
We went to the pound to rescue a puppy.

Mom used a pound of chocolate to make the cake.



Now go to the questions section and answer questions 21 through 25.

Activity



Now you will be looking for some synonyms, antonyms, homophones, and homographs in *Dear Mr. Henshaw*.



Now go to the questions section and answer questions 26 through 32.



Below are additional educational resources and activities for this unit.

Text:

For questions 1 through 7, retype each sentence using a synonym for the red word. Each sentence should make sense and have the same meaning after the word is replaced. Example:

The vase of flowers sat in the **middle** of the table.

The vase of flowers sat in the **center** of the table.

- 1) Replace the red word below with a synonym. **The magician made the rabbit **vanish**.**

Response:

Sample Answer: The magician made the rabbit disappear.

- 2) Replace the red word below with a synonym. **The army won the **battle**.**

Response:

Sample Answer: The army won the fight.

- 3) Replace the red word below with a synonym. **I couldn't believe how **silly** the comedian was.**

Response:

Sample Answer: I couldn't believe how funny the comedian was.

- 4) Replace the red word below with a synonym. **We sat in the coffee shop and **chatted** for a while.**

Response:

Sample Answer: We sat in the coffee shop and talked for a while.

- 5) Replace the red word below with a synonym.

The neighborhood we were walking in seemed **unsafe**.

Response:

Sample Answer: The neighborhood we were walking in seemed dangerous.

- 6) Replace the red word below with a synonym.

Angela got up so late that she had to **rush** to get ready.

Response:

Sample Answer: Angela got up so late that she had to hurry to get ready.

- 7) Replace the red word below with a synonym.

Rochelle was allowed to **choose** the puppy she wanted.

Response:

Sample Answer: Rochelle was allowed to pick the puppy she wanted.

Text:

For questions 8 through 13, retype each sentence using a synonym for the red word. Each sentence should make sense and have the opposite meaning after the word is replaced. Example:

The instructions for the game were **complicated**.

The instructions for the game were **simple**.

- 8) Replace the red word below with an antonym. Abby thought that the test was very **easy**.

Response:

Sample Answer: Abby thought that the test was very difficult.

- 9) Replace the red word below with an antonym. Mom said, "Zach, your room is so **clean**!"

Response:

Sample Answer: Mom said, "Zach, your room is so messy!"

- 10) Replace the red word below with an antonym. Hannah rode her bike down the **tiny** hill.

Response:

Sample Answer: Hannah rode her bike down the huge hill.

- 11) Replace the red word below with an antonym. The cat was sleeping on the **antique** couch.

Response:

The cat was sleeping on the new couch.

- 12) Replace the red word below with an antonym. I tried to remember the bad dream.

Response:

Sample Answer: I tried to forget the bad dream.

- 13) Replace the red word below with an antonym.

The beginning of the story was my favorite part.

Response:

Sample Answer: The end of the story was my favorite part.

Text:

For questions 14 through 20, choose the homophone that correctly completes each sentence. If you are unsure of a word's meaning, you may use a dictionary.

- 14) We will need to _____ the store early next Tuesday.

A) close

B) clothes

15) He hoped to sell his boat by placing an _____ in the newspaper.

A) add

B) ad

16) The _____ galloped up to the castle to rescue the maiden.

A) knight

B) night

17) After a week in bed with the flu, my father looked _____ and weak.

A) pale

B) pail

18) My mother bought four gallons of juice because they were on _____.

A) sail

B) sale

19) He nailed a _____ over the broken window.

A) board

B) bored

20) Good things can happen to you when you _____ expect them.

A) leased

B) least

Text:

For questions 21 through 25, figure out which homograph the two phrases are describing. Type the word in the blank.

a toy that bounces
Cinderella's dance

Example: Answer: **BALL**

21) Which homograph do these two phrases describe? the opposite of heavy
the opposite of dark

Response:

light

22) Which homograph do these two phrases describe? a vacation
stumble and fall

Response:

trip

23) Which homograph do these two phrases describe? something you light to start a fire
two things that go together

Response:

match

- 24) Which homograph do these two phrases describe?

a dog sound
the outside layer of a tree

Response:

bark

- 25) Which homograph do these two phrases describe?

someone who throws a baseball
a container for pouring beverages

Response:

pitcher

Text:

In questions 26 through 32, words from "Dear Mr. Henshaw" are given. Find the words on the page numbers given, and answer each question.

- 26) Which word on page 98 is a SYNONYM for uproar?

Response:

Correct Answer: racket

27) Which word on page 105 is a SYNONYM for stillness?

Response:

Correct Answer: silence

28) Which word on page 72 is an ANTONYM for found?

Response:

Correct Answer: lost

29) Which word on page 75 is an ANTONYM for worse?

Response:

Correct Answer: better

30) Which word on page 89 is a HOMONYM for breaks?

Response:

Correct Answer: brakes

31) Which word on page 134 is a HOMONYM for weigh?

Response:

Correct Answer: way

32) The word “fool” on page 73 means to trick or deceive. What is another meaning for fool?

Response:

Will vary. Examples: 1. One who is deficient in judgment, sense, or understanding. 2. One who acts unwisely on a given occasion: I was a fool to have quit my job. 3..One who has been tricked or made to appear ridiculous; a dupe: They made a fool of me by pretending I had won. 4. Informal. A person with a talent or enthusiasm for a certain activity: a dancing fool; a fool for skiing. 5. A member of a royal or noble household who provided entertainment, as with jokes or antics; a jester. 6. One who subverts convention or orthodoxy or varies from social conformity in order to reveal spiritual or moral truth: a holy fool. 7. A dessert made of stewed or puréed fruit mixed with cream or custard and served cold. 8. Archaic. A mentally deficient person; an idiot.

Measure Units and Perimeter

Text:

[PDF File](#)

MEASUREMENT UNITS AND PERIMETER

To build or make something, we must have the correct materials before we can start creating. To build a fence, we would buy a length of fencing in feet. To cover a floor in a new house, we would buy an area of carpet in square feet. To make a patio, we would buy a volume of cement in cubic yards.

Perimeter is the distance around an object. We'll examine the perimeter of a rectangle and other objects made of line segments.

Length, Area, and Volume Units

Linear units measure **length**. The length of twine would be measured in linear units. Linear units could be inches, feet, yards, miles, kilometers, meters, centimeters, and millimeters. An example would be: Mary cut 3 feet of twine to tie around the box.



Square units measure **area**. The area of a flag would be measured in square units. Square units could be square inches, square feet, square yards, square miles, square kilometers, square meters, square centimeters. Another way to write square inches would be inches². An example would be: John bought a flag that covered 6 square feet.

Cubic units measure **volume**. The volume of a concrete slab would be measured in cubic units. Cubic units could be cubic inches, cubic feet, cubic yards, cubic meters, cubic centimeters. Another way to write cubic yards would be yards³



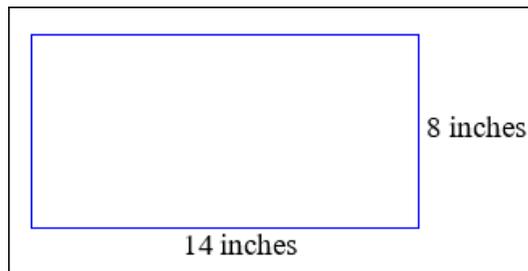
with cubic yards would be yards .

An example would be: Jeremy's dad bought and mixed 2 cubic yards of concrete to make a weighted base for his new basketball hoop.



Perimeter of a Rectangle

To find the **perimeter** of a rectangle you would add all sides. In this case you would add $8 + 14 + 8 + 14$ which would give **44 inches**. A formula for this method would be $P = L + W + L + W$.



There is another way to find the **perimeter** for the rectangle.

$$P = (2 \times 14) + (2 \times 8)$$

$$P = 28 + 16$$

$$P = 44 \text{ inches}$$

$$\text{Formula: } P = (2 \times L) + (2 \times W)$$

There is a third way to find the **perimeter** of the rectangle. Fill in the blanks.

$$P = 2 \times (4 + 8)$$

$$P = 2 \times 22$$

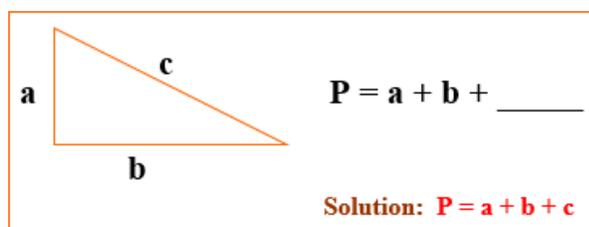
$$P = 44 \text{ inches}$$

$$\text{Formula: } P = 2 \times (L + W)$$

Perimeter of Triangles and Quadrilaterals

To find the **perimeter** of a polygon you add all sides.

Complete the formula for determining the **perimeter of a triangle** where the length of its sides are represented with **a**, **b**, and **c**.



Study the formula for determining the **perimeter of a**

Study the formula for determining the **perimeter of a parallelogram** where the length of the longer side is represented by **b** and the length of the shorter side is represented by **a**.



$P = b + a + b + a$

This formula can be rewritten as

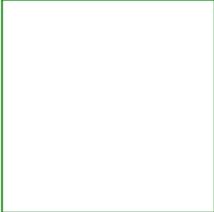
$P = b + b + a + a$

which can be rewritten as

$P = 2 \times b + \underline{\hspace{2cm}}$

Solution: $P = 2 \times b + 2 \times a$

Study the formula for determining the **perimeter of a square** where the length of one side is represented by **s**.



$P = s + s + s + s$

This formula can be rewritten as

$P = \underline{\hspace{2cm}}$

Solution: $P = 4 \times s$



Below are additional educational resources and activities for this unit.



Click on the icon to find and practice topics for this unit.

[Unit 24 Perimeter Worksheet](#)

Text:

Identify the type of measurement that you would use in problems #1 through #3.

1) The length of a piece of yarn. State the correct answer._

- a.) inches
- b.) square inches (in^2)
- c.) cubic inches (in^3)

Response 1:

a

2) The capacity that a cereal box will hold. State the correct answer._

- a.) inches
- b.) square inches (in^2)
- c.) cubic inches (in^3)

Response 1:

c

3) The amount of material needed to cover a book. State the correct answer._

- a.) inches
- b.) square inches (in^2)
- c.) cubic inches (in^3)

Response 1:

b

Text:

Study the second and third formula shown in the explanation of perimeter of a rectangle in the lesson area and then answer questions #4 and #5.

4) How are the formulas similar?

Response:

Similar – in both there is multiplication by two

5) How are the formulas different?

Response:

Different - in the second one, you multiply each dimension by two, and then add; in the third one, you add first, then multiply by two.

6) Find the perimeter._



8 inches

14 inches

Response 1:

44 in

- 7) Study the formula for the perimeter of a triangle and the perimeter of a square in the lesson area. When could the formula for the perimeter of a triangle be written as $P = 3 \times s$?

Response:

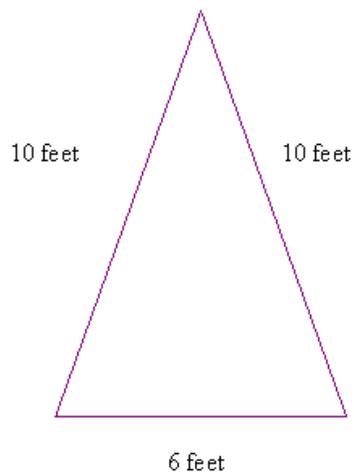
When the three sides measure the same length.

- 8) Could the formula for the perimeter of a parallelogram be used as the formula for a rectangle? Why or Why Not?

Response:

Yes, because both shapes have opposite sides the same length.

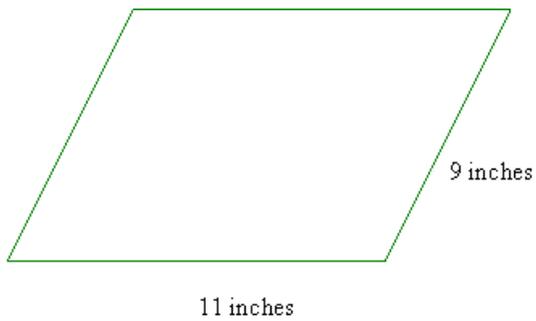
- 9) Find the perimeter._



Response 1:

26 in

- 10) Find the perimeter._



Response 1:

40 in

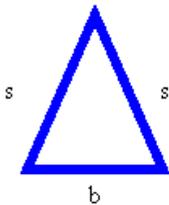
11) Find the perimeter._



Response 1:

48 in

12) Write a formula for finding the perimeter of an isosceles triangle. An isosceles triangle is a triangle that has two sides measuring the same length with the third side being different. Here is a picture to help you with the problem. The two congruent sides are labeled with an "s" and the base is labeled with a "b"._



Response 1:

$P = 2 \times s + b$

13) Find the perimeter of a rectangle with a length of $4 \frac{1}{2}$ ft and a width of $6 \frac{1}{2}$ ft._

Response 1:

14) Find the perimeter of a square with a side measuring 6.3 yd._

Response 1:

Text:

For problems #15 and #16, find the missing unit.

15) Rectangle with a perimeter of 32 inches; length is 10 inches, width is ? inches_

Response 1:

16) Square with a perimeter of 22 centimeters; side is ? centimeters_

Response 1:

Text:

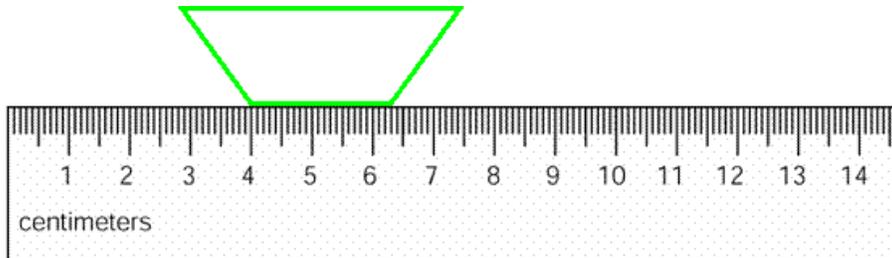
Review

17) 12 fl oz = ? c_

Response 1:

1 1/2 c

18) Name the green shape and state how long the base of the shape is in millimeters._



Response 1:

trapezoid; 23 mm

19) Find the sum. 5800 ml + 3 L_

Response 1:

8.8 l or 8800 ml

20) Draw an obtuse angle. Measure it. What is its measure?

Response:

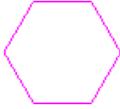
Any degree between 90 and 180 will be an obtuse angle.

21) What is the difference between parallel lines and perpendicular lines?

Response:

parallel lines never touch, perpendicular lines intersect at right angles.

22) What is the name of this shape?_



Response 1:

hexagon

23) The five digits – 1, 2, 3, 4, and 5 – are placed in the boxes to form a multiplication problem. If they are placed to give a maximum product (highest product possible), the product will fall between what two whole numbers?

$$\begin{array}{r} \square \square . \square \\ \times \square . \square \\ \hline \end{array}$$

Response:

43.1 x 5.2 = 224.12 which falls between 224 and 225.

24) Unit fractions are fractions with 1 in the numerator. Here are some examples of unit fractions: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{9}$. What two unit fractions can be added to give the sum of $\frac{5}{8}$?_

Response 1:

$\frac{1}{2} + \frac{1}{8}$

25) Andrea's mother is in California on a business trip. The time in California is three hours behind the time where Andrea lives (in Ohio). When Andrea gets up for school at 7:00 a.m., her mother is still sleeping. What time is it in California?_

Response 1:

4:00 a.m.

Citizen's Rights and Responsibilities

Text:

[PDF File](#)

CITIZENS RIGHTS AND RESPONSIBILITIES

Unit Overview

In this unit, you are going to learn that the purpose for government in the United States is to establish order, protect the rights of individuals and promote the common good.

Levels of Citizenship

Do citizens have any rights? Do they have responsibilities? If so, where do these rights and responsibilities come from?

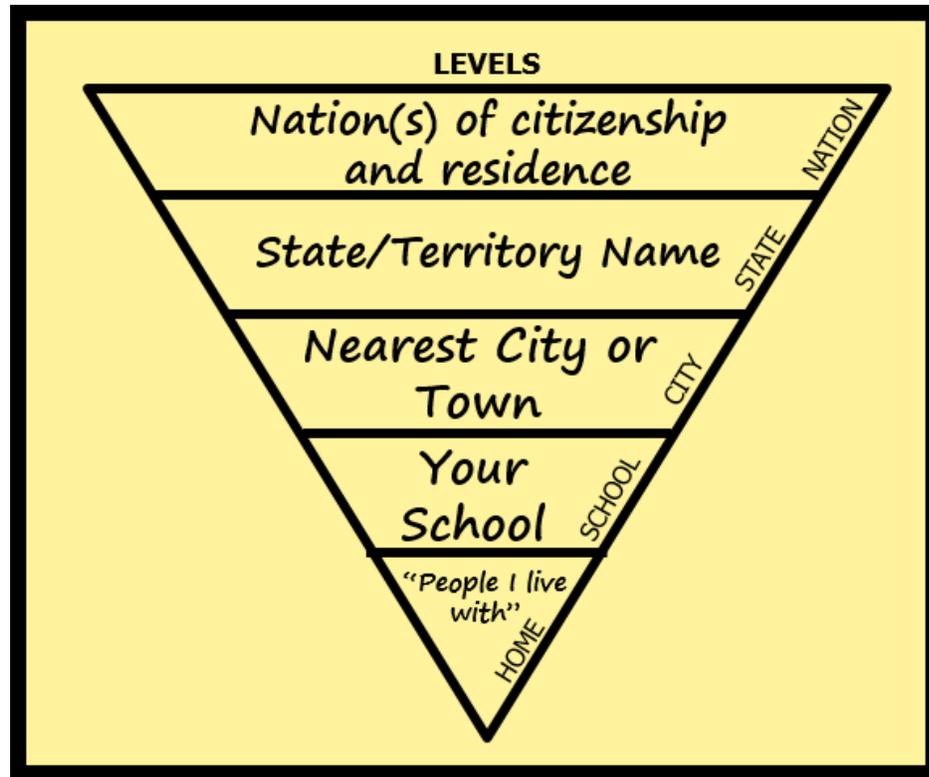
You may not think of yourself as a citizen, but you are one. A **citizen** is a member of a community who has rights and responsibilities. A community is a group of people who share an environment. The word “**citizen**” can have two meanings:

- People who live in a certain place or are a member of a certain community.
- People who are legally recognized by a nation as owing loyalty to that nation and being entitled to protection by the nation.

Every day you are part of several different layers of community. That means you have many different levels of citizenship! At each level, you have rights and responsibilities.

The people you live with at home make up the smallest “community” you belong to. Your school or workplace is a community, too. These are the people you interact with outside your home every day. You are also a citizen of the city or county where you live. Our nation is made up of 50 states, a district, and five territories. You are a citizen of the state or territory where you live, too! Finally, you are a citizen of your country. To be a citizen of a country, you must be legally recognized by that country. Usually that happens when you were born there or you went through a process to become a citizen. Even so, non-citizens

living in a country are still “citizens” in the sense that they are members of the community. Can you think of any other levels of citizenship that you have?



Citizens have rights and responsibilities, but where do those rights and responsibilities come from? That depends on the level of citizenship.

In the United States, at the national level we are guaranteed a list of rights in our Constitution. The Constitution was written when our nation was born, and it sets the rules for how our nation will run. Laws passed by the U.S. Congress can also create rights.

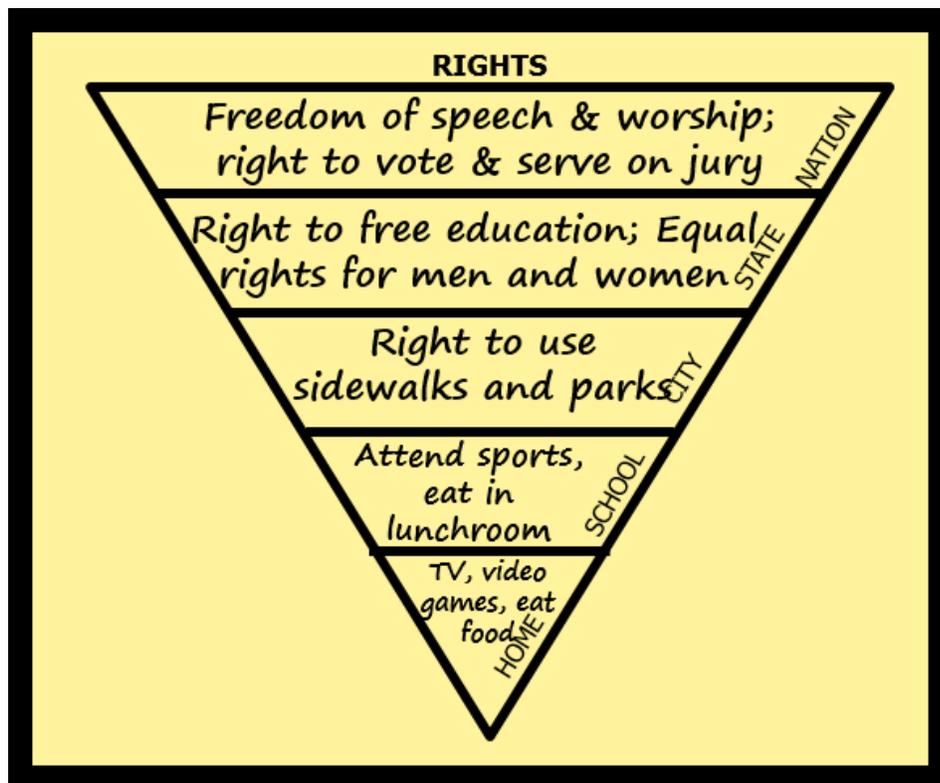
Each state also has its own constitution and its own set of laws. State constitutions and state laws contain the rights and responsibilities of state citizens. Cities often have a city charter that tells how the city will run. Cities also pass laws, which are usually called ordinances.

Most schools have a school handbook that lists the students' rights and responsibilities. (Workplaces usually have an employee handbook.) At home, the adults in charge decide what your rights and responsibilities will be. Maybe you even have a written list of your responsibilities and what you are allowed to do!

Can you think of any other sources of rights and responsibilities?

Citizens' Rights

A **right** is a privilege or a claim to something. At the national level, the U.S. Constitution guarantees really big rights such as freedom of expression, freedom to peacefully assemble, freedom to petition the government, freedom of worship, and the right not to have the government search your stuff without a warrant. In fact, these rights are guaranteed to everyone living in the U.S. — not just U.S. citizens! Rights that belong only to U.S. citizens include voting in a federal election, serving on a jury, and running for federal political office. State constitutions repeat many of the guarantees in the U.S. Constitution, but they often add more. Your state constitution might guarantee the right to a free education or equal rights for men and women. A city charter gives you the right to services your city provides, such as sidewalks or parks. Would it be a problem if the U.S. Constitution talked about sidewalks? What rights do you have at your school? At your home?



Citizens' Responsibilities

Responsibilities are duties to other people, the government, or society. At home, you are responsible for doing what the adults in charge ask you to do. You might have to sweep the floor, wash the dishes, or even wash the dog! At school, you are responsible for following the rules. You are probably not supposed to throw paper airplanes, chew

bubble gum, wear your hat backwards, or carry weapons.

City charters and city ordinances list the rules that apply in the city. For example, an ordinance may say, “There is a \$50 fine for flying a kite in the park.” That means you have a responsibility not to fly your kite there. Paying taxes is a big responsibility you will find at all levels, including the state level. Your state might have taxes on property you own, income you earn, and even stuff you buy at the store.

The U.S. Constitution does not have a list of responsibilities, but it does create a government that cannot work if people do not participate. Voting in federal elections and serving on a jury are two responsibilities just for U.S. citizens, and they require participation. Some citizen responsibilities are voluntary--like voting and volunteering, while others are mandatory--like paying taxes, obeying laws, serving as a witness, and registering for the draft. What if nobody showed up to vote? Or what if they voted without understanding the issues? How could you have a jury trial if everyone refused to do jury duty? These are responsibilities U.S. citizens have to both society and the government. The Constitution also gives Congress the power to make laws, and all U.S. residents have a responsibility to follow the law. What other responsibilities do you have? At which level?

The Responsible Citizen

A responsible citizen **promotes the common good** by obeying the law, paying taxes honestly, informing himself about important political issues, volunteering in the community and respecting the rights and opinions of others. A responsible citizen is willing to sacrifice his individual interests for the collective good of the nation. He remembers his civic duties and serves his country despite any discomfort such a course might bring.

Print and complete the following activities!

[Citizenship Passage](#)

[Rights and Responsibilities Activity](#)

1) Freedoms that all citizens of the United States have are known as _____.

- A) majority rule
- B) vote
- C) rights
- D) responsibilities

2) Name many of the rights and freedoms that belong to all Americans.

- A) rights
- B) Bill of Rights
- C) religion

3) To make a choice that gets counted is _____.

- A) a ballot
- B) a vote
- C) rights

4) A member of a community who has rights and responsibilities is called a _____.

- A) citizen
- B) consumer
- C) cabinet
- D) justice

5) The people you live at home with make up the smallest "community" you belong to.

- True
- False

6) A responsible citizen promotes the common good by:

- A) obeying the law
- B) paying taxes honestly

- C) voting
- D) volunteering in the community
- E) All of the above

7) List two rights of a citizen of the United States.

Response:

Answers will vary.

8) List two responsibilities of a citizen of the United States.

Response:

Answers will vary.

9) List two rights that you have as a citizen of your home.

Response:

Answers will vary.

10) List two responsibilities that you have as a citizen of your home.

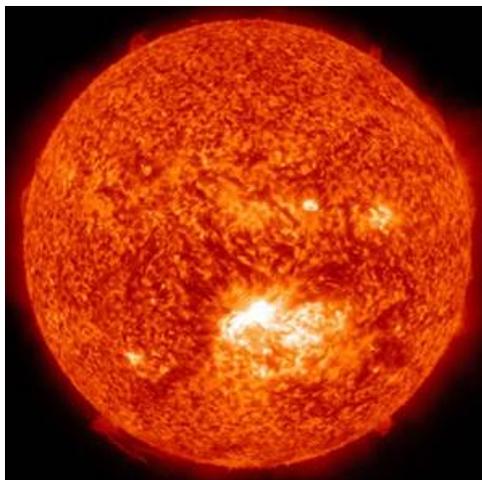
Response:

answers will vary

Earth and Space Science: Sun (5.ESS.2)

PDF File

(<https://virtualllearningacademy.net/VLA/LessonDisplay/Lesson12270/CASCI5U06Sun.pdf>)

SUN**Unit Overview**

In this unit, the students will be given an overview and assessment ***the sun is one of many stars that exist in the universe.*** (5.ESS.2)

Content Elaborations

The **sun** appears to be the largest **star** in the sky because it is the closest star to **Earth**. Some stars are larger than the sun and some stars are smaller than the sun.

The **sun** is the closest star to the **Earth**. The sun is a medium-sized star and is the only star in our **solar system**. There are many other stars of different sizes in the **universe**. Stars appear in patterns called **constellations**, which can be used for **navigation**. Because they are so far away, they do not appear as large as the sun.

Let's Practice

Use the information from the Content Elaborations to complete this activity sheet (<https://virtualllearningacademy.net/VLA/LessonDisplay/Lesson12270/Sun.pdf>).

The following has two parts. First, answer Part A. Then, answer Part B.

The following has two parts.

The following question has two parts.



Below are additional educational resources and activities for this unit.



[Milky Way \(https://brainpop.statestandards.com/redirect.pl?aid=911587&sid=2724462\)](https://brainpop.statestandards.com/redirect.pl?aid=911587&sid=2724462)

[Solar System \(https://brainpop.statestandards.com/redirect.pl?aid=911876&sid=2724462\)](https://brainpop.statestandards.com/redirect.pl?aid=911876&sid=2724462)

[Sun \(https://brainpop.statestandards.com/redirect.pl?aid=911945&sid=2724462\)](https://brainpop.statestandards.com/redirect.pl?aid=911945&sid=2724462)

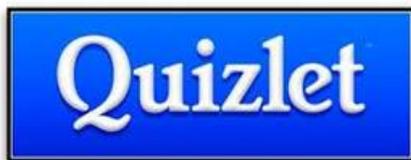
[Earth \(https://brainpop.statestandards.com/redirect.pl?aid=912211&sid=2724462\)](https://brainpop.statestandards.com/redirect.pl?aid=912211&sid=2724462)

[Life Cycles of a Star \(https://brainpop.statestandards.com/redirect.pl?aid=911878&sid=2724462\)](https://brainpop.statestandards.com/redirect.pl?aid=911878&sid=2724462)

[Exoplanets \(https://brainpop.statestandards.com/redirect.pl?aid=911793&sid=2724462\)](https://brainpop.statestandards.com/redirect.pl?aid=911793&sid=2724462)

[Galaxies \(https://brainpop.statestandards.com/redirect.pl?aid=911588&sid=2724462\)](https://brainpop.statestandards.com/redirect.pl?aid=911588&sid=2724462)

[Space Exploration \(https://brainpop.statestandards.com/redirect.pl?aid=1847615&sid=2724462\)](https://brainpop.statestandards.com/redirect.pl?aid=1847615&sid=2724462)



[Earth and Space Science \(5.ESS.2\) \(https://quizlet.com/_5fqd2c\)](https://quizlet.com/_5fqd2c)



Sun (<https://edcite.com/1n5f0y>)

1) Stars close to Earth include the sun, Alpha Centauri, and Barnard's star. How is the sun different from Alpha Centauri and Barnard's star?

- A) The sun orbits Earth.
- B) The sun gives off light.
- C) The sun is in our solar system.
- D) The sun is made up of gases.

2) The sun is a medium sized star. Why do other stars in the night sky appear to be not as large as the sun?

Response:

Because they are farther away.

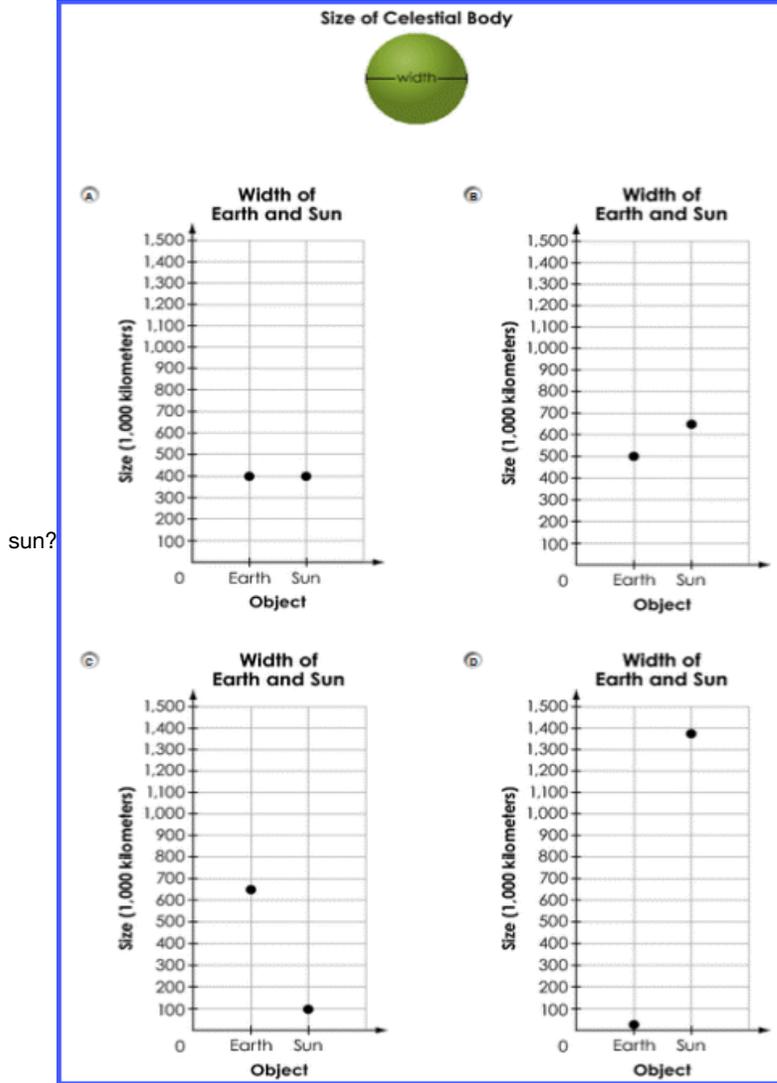
3) Stars appear in patterns called _____.

Response:

constellations

4)

A student compares the widths of Earth and the sun. Which graph shows the size of Earth compared with the size of the



- A) graph A
- B) graph B
- C) graph C
- D) graph D

5) The Earth can be found **inside** our solar system.

- True
- False

6) A small star can be found **outside** our solar system.

- True
- False

7) A large star can be found **inside** our solar system.

- True
 False

8) A medium star can be found **inside** our solar system.

- True
 False

9) A student studies stars by identifying their surface type, composition, size, and distance from Earth. Which table shows the

characteristics of stars?

A	Surface Type	Composition	Size	Distance from Earth
	Solid	Rock	Small	Close
B	Surface Type	Composition	Size	Distance from Earth
	Solid	Gases	Large	Far
C	Surface Type	Composition	Size	Distance from Earth
	Not solid	Rock	Small	Close
D	Surface Type	Composition	Size	Distance from Earth
	Not solid	Gases	Large	Far

- A) table A
 B) table B
 C) table C
 D) table D

10) **Part A**

The picture shows the positions of four stars relative to Earth's axis and equator.

When viewed from the Northern Hemisphere, which star appears to stay in the same place in the sky throughout the night?

- A) 1
 B) 2
 C) 3
 D) 4

11) **Part B**

What causes some stars to appear to stay in the same place, while other stars appear to move across the sky throughout a single night?

- A) Earth rotates on its axis.
- B) Earth revolves around the sun
- C) Half of Earth faces away from the sun at all times.
- D) The length of nighttime changes as the seasons change

12) The sun appears in different positions in the sky throughout the year except for two days of the year. One of those dates is December 21st. Look at the figure above and Identify the sun's position where it would appear in the sky on December 21st at noon.

- A) 1
- B) 2
- C) 3

13) Choose the picture of the shadow of the flagpole to show the length it would be on December 21st at noon.

- A)
- B)
- C)

14) Solar panels collect energy from the sun's rays and convert it to electricity. A school in Ohio wants to construct solar panels on its roof. The position of these panels can change during different times of the year. The picture shows the solar panels in two different positions. During which season should the panels be in position 2?

- A) fall
- B) spring
- C) summer
- D) winter

15) Why should the solar panels be at position 2 during this season?

- A) The sun is larger in the sky during this season.
- B) The sun is lowest in the sky during this season.
- C) There are more hours of sunlight in a day during this season.

- D) The hours of night and sunlight in a day are equal during this season

16) The table gives the angle of the sun. at noon in degrees every fty days over the course of a year for two cities. Select the three conclusions that are supported by the data in the table.

- A) When it is summer in City 1, it is winter in City 2
- B) On any given. day, the seasons are the same in both cities.
- C) When the angle of the sun at noon is high in City 1, it is low in City 2.
- D) On Day 150, the amount of direct sunlight is less in City 1 than in City 2.
- E) Around Day 100 and Day 250, the average daily temperatures in both cities are about the same.

17)

Can be seen at night by Earth

Star in Orion ⚡

Located inside our solar system

Sun ⚡

18) Identify the objects that are found inside our Solar System.

- A)
- B)
- C)
- D)

19) Identify the objects that are found outside our Solar System.

- A)
- B)
- C)
- D)

20) Stars close to Earth include the sun, Alpha Centauri, and Barnard's star. How is the sun different from Alpha Centauri and Barnard's star?

- A) The sun orbits Earth.
- B) the sun gives off light.
- C) The sun is in our solar system.
- D) The sun is made up of gases.

21) The sun is more than 4 1/2 billion years old. That would be too many candles to put on a Birthday Cake! There are sunspots on the **surface** of the sun. These spots were made from the heat that comes up from the **middle** of the sun.

The middle of the sun is called the core. It is very hot. The sun's core can reach over 10 million degrees Fahrenheit. Your body temperature is 98.6 degrees Fahrenheit. In comparison, you can see that the sun is very, very hot.

The sun gives us light and heat. It is the center of our solar system. The Solar System is made up of the sun, planets, moons, asteroid belt, comets meteors, and other objects. The Earth and other planets revolve around the sun.

The sun also gives out **dangerous** ultraviolet light which **causes** sunburn and may cause cancer. You need to be careful of the sun and wear sunscreen and clothing to protect yourself from its rays.

Without the sun, there would only be darkness and our planet would be very cold and be without liquid water. Our planet would also be without people, animals, and plants because these things need sunlight and water to live.

The sun is as large across as putting 109 Piles of earth next to each other. It weighs as much as 330,000 Earths. The sun seems small when you look at it in the sky during the daytime, in the morning when it comes up and in the evening at sunset. That is because the sun is so far away. It is 150 million miles away and it takes 8 minutes for us to see the sunset after the sun has already gone down.

The sun is made up of gases: 75% hydrogen and 25% helium. Hydrogen is the simplest and lightest of all of the known elements. When you combine hydrogen with oxygen you get water. You probably know what helium is. It is the gas that is put into balloons to make them stay in the air and float.

Scientists study the sun using special tools or instruments such as telescopes. They look at the **amount** of light from the sun and the effect of the sun's light on the Earth's climate.

Stars are huge balls of **glowing** gas in the sky. There are over 200 billion stars in the sky. The sun is the star that is closest to us. There are large stars which are 1000 times larger than the sun and small stars which are smaller than the Earth.

Stars look like **tiny** dots in the sky because their light needs to travel through many layers of the Earth's atmosphere to reach us here on Earth. The light of the star is bent many times through these layers so it looks like the stars are **twinkling**. That is why the words are written in the song: *Twinkle, Twinkle, Little Star*.

Stars have lifetimes of billions of years. They are held together by their own gravity. Over half of the stars in the sky are in groups of two. They orbit around the same center point and they orbit across from each other.

There are larger groups of stars called clusters. These clusters of stars make up galaxies. Our Solar System is located in the Milky Way Galaxy.

What does the text say is the **most likely** size of stars?

- A) They are all the same size.
- B) They are all small and you can see them twinkle.
- C) Large stars are 1000 times larger than the sun and small ones are smaller than the Earth.
- D) They are all smaller than the sun.

22)

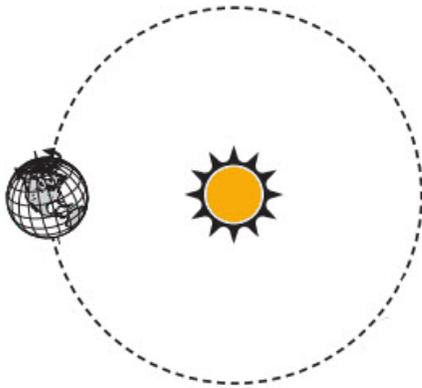
The sun is a medium size star, yet it appears to be much larger than all the other stars in the night sky. Explain why the sun is a star. Then explain why it appears to be so much larger than the other stars we see at night.

Response:

The sun is a star because it is a mass of hot glowing material which gives off heat and light. The sun appears to be larger than other stars because it is the closest star to Earth.

23) Seasons occur because Earth's axis is tilted.

Based on the diagram below, identify what season Ohio is experiencing?



- A) Fall
- B) Winter
- C) Spring
- D) Summer

24) In the sky at night, you can see thousands of stars. They look like tiny points of light. The sun is also a star. However, it looks large in the sky. Which statement explains why the sun looks so much larger than nighttime stars?

- A) The stars are much smaller
- B) The sun is much larger
- C) The stars are much farther away
- D) The sun is much farther away