

BEARCAT DAY 6

**GRADE 8
ANDERSON COUNTY SCHOOLS**



ANDERSON COUNTY MIDDLE SCHOOL

8TH GRADE BEARCAT DAY 6

<p>LANGUAGE ARTS</p>	<p><u>HISTORICAL TEXTS REVIEW PRACTICE</u> Please go to your Language Arts Google Classroom. Click on the Bearcat Days/NTI Days Assignment to enter answers for all of your Language Arts Bearcat Days (NTI Days) each day. If you cannot send your Language Arts answers electronically each day, write your answers on notebook paper and bring to school at your earliest convenience. AC staff members will be reaching out to you multiple times a week. Don't hesitate to contact us with questions!</p>
<p>MATH</p>	<p><u>COMPARING AND ORDERING REAL NUMBERS REVIEW</u> Read through the Bearcat Day 6 Lesson. Work through the practice problems in the lesson. After completing the lesson, complete the Bearcat Day 6 Google Form that goes with the lesson. This Google Form will be graded and entered into the grade book. Please give your best effort! We have included a Khan Academy video to help you with the content if you are struggling. If you cannot complete the assignment electronically, complete it on notebook paper and return it to the school</p>
<p>SCIENCE</p>	<p><u>NATURAL SELECTION</u> Students should complete the assignment in their science class' Google Classroom.</p>
<p>SOCIAL STUDIES</p>	<p><u>NATION PULLS APART PAGE 93</u> Students should complete the assignment in their social studies' class' Google Classroom. Read the passage. Answer the questions in COMPLETE sentences, restating the questions. Cite line/paragraph from passage.</p>
<p>PE/HEALTH</p>	<p><u>PHYSICAL ACTIVITY LOG</u> Students should have received a printed copy of this log in class. Student and parent will sign the activity log once the activity is complete.</p>
<p>CAREERS</p>	<p><u>Dream Jobs: Geographer</u> Let's explore some COOL JOBS! Read the article and answer the questions in Mrs. Beasley's Google Classroom.</p>

Use the Reading Guide to help you understand the passage.

p1 of 6

Reading Guide

What is the structure of the first paragraph? How does the structure help you identify the main idea?

What does Elizabeth Cady Stanton believe about women's rights? How do you know?

How do most newspapers react to the convention? What effect does their commentary have?

Women Win the Vote

The Seneca Falls Convention

The story of women's suffrage is a saga of many lost battles before achieving victory. It starts in 1848 in Seneca Falls, New York, at the first women's rights convention, which is the beginning of the women's suffrage movement in the United States. Several women, including Lucretia Mott and Elizabeth Cady Stanton, assemble about three hundred local people. Their plan is "to discuss the social, civil, and religious condition and rights of woman." For Stanton, these rights also include political rights, specifically the right to vote.

The formal document for the convention is the "Declaration of Sentiments." Author Stanton models it after the Declaration of Independence. Stanton spells out issues that relate to unjust treatment of women. She writes, "The history of mankind is a history of repeated injuries and usurpations on the part of man toward woman, having in direct object the establishment of an absolute tyranny over her." She proves her point by listing injustices men have carried out toward women. These include denying them the vote, preventing them from getting a good education, and controlling their property after marriage. The declaration insists that women "have immediate admission to all the rights and privileges which belong to them as citizens of the United States. . . ."

During the convention, the document is read and discussed. The most important part, but the one that most worries the organizers, is the right to vote. Support for the idea, though, comes from convention attendee and freed slave Frederick Douglass. Now an important newspaper editor, Douglass supports Stanton's message and argues for voting rights. The convention ends with about one hundred people signing the declaration.

A few newspaper stories urge the women to continue, but the majority mock the proceedings. One newspaper publishes the declaration and its resolutions in an effort to show how ridiculous they are. The effort backfires, however, by giving the movement recognition and publicity. A second meeting in Rochester follows. That group adopts and signs the declaration. The movement is gaining followers.

Reading Guide

What are the respective strengths of Anthony and Stanton?

What is the most important point of the second paragraph on this page? Which details support that main idea?

How does the chart relate to the passage?

Two Leaders Forge Ahead

The story jumps ahead to 1851 when Elizabeth Cady Stanton and Susan B. Anthony meet. Anthony is in Seneca Falls to attend an anti-slavery meeting. Because the women share common beliefs and similar goals, it seems only natural that a friendship develops. They work together to advance the women's rights movement. Anthony lays out a strategy to publicize their cause. She organizes events, enlists other women, and appears at rallies throughout the country. She pleads their case at every session of Congress between 1869 and 1906. Stanton is the scholar of the pair. She writes pamphlets, speeches, and books. She wants women to be protected in cases of divorce and from situations that involve abuse.

In 1861, the Civil War begins. To some, women's rights do not seem as important as ending slavery and giving black men the vote. While Stanton and Anthony are fiercely against slavery, they believe that any change in voting laws should benefit women, too. The end of the war brings changes to the Constitution in the form of amendments. Article V identifies how they can be proposed, accepted, and added to the Constitution.

PROPOSAL

two-thirds of both Houses of Congress vote in favor
OR
two-thirds of the states call for a convention to propose it



RATIFICATION

three-fourths of state legislatures
OR
state conventions vote in favor

The Thirteenth Amendment, which ends slavery, is passed in 1865. Stanton and Anthony hope that women's suffrage will soon follow. When the Fourteenth Amendment in 1868 and the Fifteenth Amendment in 1870 pass, black men find they are citizens and can vote. Women, however, are no better off than before. The Fifteenth Amendment says that the "right of citizens of the United States to vote shall not be denied or abridged by the United States or by any state on account of race, color, or previous condition of servitude." It says nothing about the sex of the voter.

Reading Guide

What did Anthony do that was against the law? Why do you think she did it?

How does the women's suffrage movement change at the beginning of the twentieth century?

What key event prompts the creation of the Nineteenth Amendment?

Victory Comes with the Nineteenth Amendment

Before the Fifteenth Amendment is passed, Anthony and Stanton form the National Woman Suffrage Association. More than anything, this group wants their own amendment for women's suffrage. Although they are unsuccessful, there are signs of change. No federal amendment passes, but some places in the western United States begin to pay attention to the suffragists. In 1869, Wyoming becomes a territory and allows women to vote in all elections. When Wyoming is granted statehood in 1890, women keep their voting rights. About thirteen western states eventually follow Wyoming's lead and women in parts of the West begin to vote. The rest of the country is not so forward looking. When Susan B. Anthony votes in New York in 1872, she is arrested because it is still illegal for a woman to vote.

As the nineteenth century turns into the twentieth, new women join the fight. Women like Carrie Chapman Catt and Alice Paul take over leadership roles as Anthony and Stanton age. Stanton dies in 1902 at age eighty-seven. Anthony dies four years later at eighty-six. Their successors think progress is too slow, and some want to try more radical methods. Throughout the early twentieth century, the suffragists travel the country gaining support. They try to influence voting outcomes so candidates who support women's suffrage will get elected. They picket the White House when President Woodrow Wilson seems to ignore their wishes. Many women are arrested and put in jail. The actions get some results. In 1917, six more states allow women to vote in elections for president, including Rhode Island, in the East.

Then, in 1918, President Wilson changes his view and publicly supports an amendment for women's suffrage. It is just what Stanton and Anthony dreamed of and fought for—a Constitutional amendment to guarantee women the right to vote! In 1919, two-thirds of Congress votes to propose the Nineteenth Amendment. In 1920, it is ratified by three-fourths of state legislatures. The fight for suffrage had been long and hard, but the battles had been worth fighting, and American women still celebrate the victory.

Answer the following questions.

- 1 Which statement **best** explains the text structure and the effect that organization has on the reader?
- A. By describing events in order of importance, the author helps readers appreciate the significance of the Nineteenth Amendment.
 - B. By explaining how women found a solution to their problem, the author shows that all problems can be solved.
 - C. By presenting information in sequence, the author helps readers recognize how long and difficult the fight for suffrage was.
 - D. By comparing ways women worked for suffrage, the author shows readers that different approaches can solve problems.

- 2 This question has two parts. First, answer Part A. Then, answer Part B.

Part A

Which sentence from the first paragraph of "Two Leaders Forge Ahead" is the main idea?

- A. Anthony is in Seneca Falls to attend an anti-slavery meeting.
- B. They work together to advance the women's rights movement.
- C. She pleads their case at every session of Congress between 1869 and 1906.
- D. She writes pamphlets, speeches, and books.

Part B

Identify two details in the paragraph that **best** support the main idea.

- 3 Below are three claims that one could make based on the passage "Women Win the Vote."

Part A

Circle the claim below that is supported by evidence in the article.

Claims	Women would have eventually been given the right to vote, even if leaders like Stanton and Anthony had not worked for that cause.
	Actions taken against and by President Woodrow Wilson were critical to women's getting the vote.
	The Civil War and the amendments passed after the war had no effect on the women's rights movement.

Part B

Identify the evidence that supports the claim you circled. Use quotes from the text to justify your answer.

Write your answer on the lines provided.

- 4 Read the domain-specific words from the text on the left. Then, match each word to its closest definition on the right.

A. convention

1. approved

2. government building

B. ratified

3. large meeting

4. signature

5. formal statement

C. declaration

6. denied

- 5 Fill in the sequence chart to show the two key steps in the passage of the Nineteenth Amendment. Use dates and facts from the text.



Grade 8 Day 6 Math

Unit: Real Number System
Student Handout 6

Name

Date

Notes

Pc

COMPARING & ORDERING REAL NUMBERS

COMPARING

- We can compare two values by using inequality signs like $<$, or less than and $>$ or greater than.
- For example, compare the following values by using an inequality sign:

a. $2 < \sqrt{8}$

b. $-1.5 > -\frac{5}{2}$

a. $2 < \sqrt{8}$ b. $-1.5 > -\frac{5}{2}$ c. $12.5 > \sqrt{145}$

ORDERING

- Lists of values can be ordered from least to greatest, or greatest to least. List some other key words or phrases that could be used below.
- Least to greatest: Ascending, increasing, minimum to maximum
- Greatest to least: Descending, decreasing, maximum to minimum

When comparing or ordering, it is helpful to first represent the values in the same form. Practice converting between the three forms of numbers below:

FRACTION	$\frac{1}{3}$	$\frac{1}{5}$	$\frac{1}{2}$	$\frac{2}{3}$	$\frac{3}{4}$	$\frac{1}{8}$	$\frac{2}{5}$	$1\frac{1}{2}$
DECIMAL	0. $\bar{3}$	0.2	0.5	0. $\bar{6}$	0.75	0.125	0.4	1.5
PERCENT	33. $\bar{3}$ %	20%	50%	66. $\bar{6}$ %	75%	12.5%	40%	150%

Compare the following values by placing the correct inequality sign in the box.

1. $-\frac{7}{8} \boxed{<} -0.5$	2. $\pi^2 \boxed{>} \sqrt{50}$	3. $-60\% \boxed{>} -\frac{3}{4}$	4. $5+\sqrt{60} \boxed{>} 4+\sqrt{63}$
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5. It took Kiara 35.25 minutes to finish her chores on Saturday, while it took her brother Derek $35\frac{1}{6}$ minutes to finish his chores. Who finished their chores the fastest?

Derek

COMPARING & ORDERING REAL NUMBERS

In questions 1-6, write the correct inequality sign in each blank.

<p>1.</p> $5.6\% \quad \underline{\hspace{1cm}} \quad \sqrt{27}$	<p>2.</p> $8 + \sqrt{50} \quad \underline{\hspace{1cm}} \quad 5 + \sqrt{65}$	<p>3.</p> $\frac{15}{3} \quad \underline{\hspace{1cm}} \quad \sqrt{30}$																
<p>4.</p> $5\pi \quad \underline{\hspace{1cm}} \quad \sqrt{225}$	<p>5.</p> $-\frac{10}{3} \quad \underline{\hspace{1cm}} \quad -\sqrt{9}$	<p>6.</p> $2\pi \quad \underline{\hspace{1cm}} \quad \sqrt{44}$																
<p>7. List the values in ascending order.</p> $-94\%, -\frac{8}{9}, -.925, -\frac{9}{10}$ <p>_____</p>		<p>8. List the values in decreasing order.</p> $\sqrt{170}, 13.5, \frac{64}{5}, 13\frac{7}{8}$ <p>_____</p>																
<p>9. Bennett planted four tomato plants in his garden, and he recorded their progress after a few weeks.</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 5px;">PLANT A</td> <td style="padding: 5px;">$\sqrt{35}$ in.</td> </tr> <tr> <td style="padding: 5px;">PLANT B</td> <td style="padding: 5px;">5.3 in.</td> </tr> <tr> <td style="padding: 5px;">PLANT C</td> <td style="padding: 5px;">$5\frac{1}{2}$ in.</td> </tr> <tr> <td style="padding: 5px;">PLANT D</td> <td style="padding: 5px;">$5\frac{1}{5}$ in.</td> </tr> </table> <p>List the plants in ascending order according to their height.</p> <p>_____</p>		PLANT A	$\sqrt{35}$ in.	PLANT B	5.3 in.	PLANT C	$5\frac{1}{2}$ in.	PLANT D	$5\frac{1}{5}$ in.	<p>10. The time that it took four students in Mrs. Alvarez's class to solve a rubiks cube is listed in the table below.</p> <table border="1" style="margin: 10px auto; border-collapse: collapse; text-align: center;"> <tr> <td style="padding: 5px;">MITCHELL</td> <td style="padding: 5px;">3 min. 33 seconds</td> </tr> <tr> <td style="padding: 5px;">ERIN</td> <td style="padding: 5px;">3 min. 5 seconds</td> </tr> <tr> <td style="padding: 5px;">CHELSEA</td> <td style="padding: 5px;">2 min. 55 seconds</td> </tr> <tr> <td style="padding: 5px;">FINN</td> <td style="padding: 5px;">2 min. 59 seconds</td> </tr> </table> <p>List the students names in order beginning with the fastest time.</p> <p>_____</p>	MITCHELL	3 min. 33 seconds	ERIN	3 min. 5 seconds	CHELSEA	2 min. 55 seconds	FINN	2 min. 59 seconds
PLANT A	$\sqrt{35}$ in.																	
PLANT B	5.3 in.																	
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Chapter 7 • Lesson 35

Natural Selection

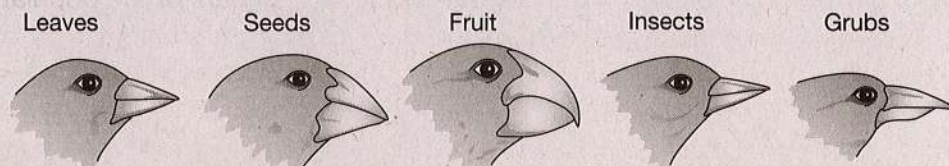
Key Words • species • evolution • natural selection • adaptation • phenotype • fitness • gene pool**Getting the Idea**

A **species** is a group of similar organisms that can breed and produce fertile offspring. The species that exist on Earth today are not the same species that existed 100 million, 10 million, or even 1 million years ago. In 1859, Charles Darwin, a British naturalist, published *On the Origin of Species by Means of Natural Selection*. In his book, Darwin proposed an explanation of how species change.

Natural Selection

The change in species over time, from the earliest forms of life to the wide range of organisms that exist today, is called **evolution**. Scientists today think that evolution has occurred at least partly through natural selection. **Natural selection** is the process by which organisms with favorable variations for their environment survive and reproduce, passing those variations on to the next generation.

Any organism must obtain resources from its environment to survive. Traits that increase an organism's chance of survival tend to become more common in a population. Such a feature is called an **adaptation**. Adaptations can be structural (related to an organism's form), functional (related to the way its body works), or behavioral. Darwin discovered the finches shown below during his voyage to the Galápagos Islands. The birds developed from a species that came to the islands from South America. The differences in their beak shapes show how they became adapted to the food sources available on each island.



Beak shapes in Galápagos Islands finches vary according to the type of food the finches eat.

How Natural Selection Works

Four key principles of natural selection include overproduction of offspring, competition for limited resources, variation, and differences in fitness.

Overproduction of Offspring

An oak tree produces thousands of acorns in its lifetime, and a spider may lay hundreds of eggs at a time. However, not all of these offspring survive to adulthood. Most are consumed by predators or do not manage to find a suitable place to grow. Relatively few survive to reproduce. Almost all organisms produce more offspring than can grow to adulthood.

Limited Resources in the Environment

The amount of space, food, water, shelter, and other resources in nature is limited. Organisms that share an environment must compete for these resources.

Variation within a Population

A *population* consists of the members of a single species that share an environment.

Organisms in a population differ from each other in how well they can obtain resources from the environment and avoid *predation*, or the preying of one animal on others. Some of the variation is genetic variation, which is inherited, while some is due to effects of the environment.

Differences in Fitness

Recall that a **phenotype** is the form of a trait that an organism displays. Some phenotypes are better than others at helping an organism get resources and survive in its environment. If a phenotype that makes an organism successful results from its genes, the variation can be passed on to offspring. Organisms with traits better suited to their environment tend to produce more offspring than do other organisms in the same population. The ability of an organism to survive and reproduce in its environment is called its **fitness**. Traits that increase an organism's fitness are more likely to be passed on to the next generation. In this way, the traits of a population may change as the environment changes.

Natural Selection and Genes

Natural selection depends on variation in phenotypes. It acts on phenotype, not genotype. However, phenotype is the result of genotype, as you learned in Lesson 32. Traits are determined, at least partly, by genes. Therefore, natural selection can change the gene pool of a population.

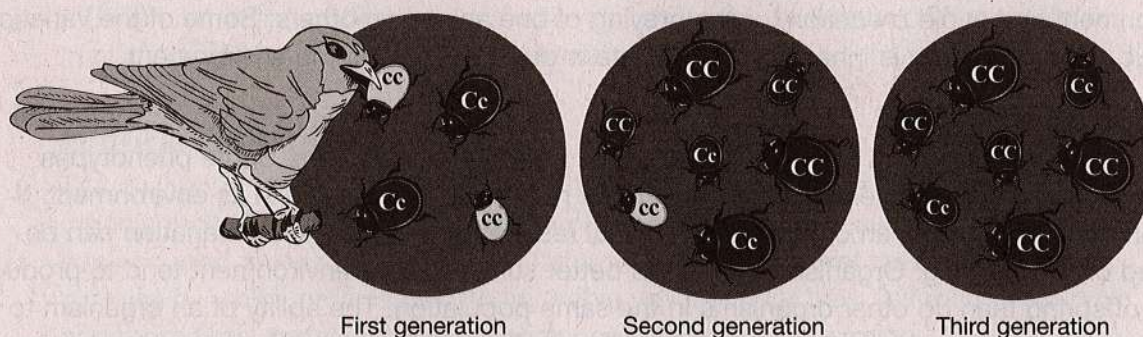
A population's **gene pool** includes all the alleles carried by members of the population, whether or not the alleles are expressed. Suppose that an allele, *t*, results in a helpful trait that allows the organism to better survive in its environment. This organism will be more likely to have offspring, and those offspring are more likely to inherit the helpful allele. Over time, the allele becomes more common, while other alleles (such as *T*) become less common. In this way, natural selection changes the population's gene pool.

In order for natural selection to work, there must be genetic variation in a population. Suppose there is only one allele *T* for a gene, so that each individual has the genotype *TT*. Natural selection cannot act on this gene because there is no variation to select. Recall from Lesson 33 that meiosis and sexual reproduction increase genetic variation. When gametes form, variation arises from independent assortment and crossing-over. Some variations also arise from mutations, or changes in DNA. A variety of genotypes and phenotypes in a population makes it more likely that some members of the population will survive and reproduce in a variety of different environmental conditions.

Examples of Natural Selection

Pesticide resistance is an example of natural selection. People have developed chemicals called pesticides to kill insects. *Resistance* is an organism's ability to withstand a harmful agent. Occasionally, some insects in a population have an allele that enables them to survive a pesticide. Because these organisms have greater fitness, they pass the allele that makes them pesticide-resistant to the next generation of insects. Over several generations, this trait can spread to many or all members of the insect population.

Many adaptations relate to finding food, escaping predators, and reproducing in specific environments. For example, the light-colored beetles below are spotted by predators more easily against the dark background. Because the dark phenotype helps beetles survive and reproduce in this environment, the allele for dark color passes to the next generation more often.



Natural selection does not eliminate every harmful allele from a population. Consider the allele that causes sickle-cell anemia, a disorder in which red blood cells are misshapen. People with two alleles for the sickle-cell gene (SS) experience pain, fatigue, and a shorter life span. Heterozygous people (AS) experience few symptoms, but they are less likely to be infected with malaria, a deadly disease. The sickle-cell allele is commonly found in populations that live where malaria is a problem. Although an allele may be harmful or lethal, it can persist in a population because heterozygous individuals are either more fit or not harmed by it.

Discussion Question

Fitness depends on an organism's environment. Give an example of a trait that would be favorable in one environment and unfavorable in another. How would natural selection affect the frequency of this trait if the environment changed?

Lesson Review

1. Which of these is **not** a principle of natural selection?
 - A. More offspring are produced than will survive to reproduce.
 - B. A phenotype that increases an organism's fitness tends to occur more frequently in subsequent generations.
 - C. Organisms must compete for resources in their environment.
 - D. Species with less variety are more likely to survive environmental change.
2. Which is the **best** definition of fitness?
 - A. the ability to inherit dominant alleles
 - B. the ability to pass on traits to offspring
 - C. the ability to survive in an environment
3. A farmer plants a field of true-breeding corn plants. The plants are genetically very similar. What is a disadvantage of this similarity?
 - A. The plants cannot pass on their traits to the next generation.
 - B. The plants' phenotypes will be influenced by the environment.
 - C. The plants are less likely to survive a change in the environment.
 - D. The plants are more likely to develop a gene pool with recessive traits.
4. A disorder causes members of a mammal species to die soon after birth. The disorder is caused by inheriting two matching alleles for the disorder. What is **likely** to happen to this allele over time?
 - A. It will disappear from the population because it decreases fitness.
 - B. It will persist at the same frequency because natural selection cannot act on it.
 - C. It will increase in the population because it allows parents to have more offspring.
 - D. It will remain in the population because heterozygous individuals are not affected.

**MAJOR SECTIONS IN 1850**

- Northeast
- Midwest
- South

The South: Land of Farms and Plantations

The South was made up of the slave states. Look at the map. What were the southern states?

People in the South lived on farms and large plantations. Their most important crops were cotton, tobacco, rice, and sugar.

The southern economy was built on slavery. Enslaved people grew and harvested the crops that made money for southerners. In 1850, one-fourth of all southern families were slaveholders. Most had just one or two enslaved people. But planters might have from 30 to 1000 slaves working on their plantations.

The political leaders of the South were mainly planters. They feared a strong national government. They thought a strong government might end slavery.

In Congress, southerners and northerners often disagreed. Southerners opposed high tariffs because the South had few factories to protect. Southerners also opposed the building of more roads, canals, and railroads in the North. Such projects did not help southerners.

Most of all, southerners disagreed with northerners about slavery.

Looking Back

1. How did the Northeast and the Midwest depend on each other?
2. How did people in the South make a living?
3. What did southerners and northerners disagree about in Congress?

The Midwest: Land of Small Farms

The Midwest was made up of the states around the Great Lakes. Look at the map. What were those states?

The Midwest was settled mainly by owners of small farms. Those farmers raised corn, wheat, cattle, pigs, and sheep.

Northeast and Midwest Need Each Other

The *economy* of the Midwest was closely tied to the economy of the Northeast: The Northeast depended on the Midwest for meat and grain. The Midwest depended on the Northeast for goods such as boots and guns. Many canals and railroad lines connected the two sections.

Like northeasterners, midwesterners wanted a strong national government. They wanted the government to build more roads, canals, and railroads in the Midwest. Better transportation would allow them to get their crops to markets in the Northeast.

Members of Congress from the Midwest and Northeast supported one another. Midwestern members voted for high tariffs. In exchange, northeastern members voted for better transportation. And members from both sections opposed slavery.

The Midwest and Northeast often looked like one huge section to southerners. They called that section "the North."

Grade 8 Day 6 Health & PE

p1 of 1

Physical Activity Log

Warm up:

30 seconds of Jumping Jacks and 60 seconds of running in place.

Stretches:

Triceps both right and left arm for 15 seconds each

Deltoid (shoulder) 15 seconds each arm

Toe Touches 15 seconds

Hurdler stretch, 15 seconds for each leg

Butterfly stretch 15 seconds

Flamingo, 15 seconds for each leg

Calve muscle, 15 seconds each leg

Exercises:

2 minutes of jumping jacks

2 minutes of jumping rope

2 minutes of running in place

1 minute of squats

10 push ups

10 sit ups

1 minute break

Repeat the exercise routine 3 more times.

Additional Physical Activities:

20 minutes of work around the house (cleaning, shoveling snow, whatever needs to be done)

I, _____, have completed all of the above activities for Bearcat Day 1.

Student Signature _____ Date: _____

Parent Witness _____ Date: _____

Dream Jobs: Geographer

By National Geographic, adapted by Newsela staff on 10.17.17

Word Count **939**

Level **1070L**



Juan Valdes is the official geographer of the National Geographic Society. Geography is the study of the physical features of our planet and how these features have changed over time. Geographers also study how humans affect and are affected by these features. Geographers also study of how and where humans live.

Valdes guides and assists National Geographic's Map Policy Committee in drawing borders and disputed territories and deciding how things will be correctly named.

Valdes is also the director of editorial and research for National Geographic Maps. He ensures all the company's maps and map products are accurate and consistent.

Early Work

Valdes was born in Havana, Cuba, and spent time in Miami, Florida, as a boy. He remembers coming to Washington, D.C., in winter 1963: "The first thing that struck me was that all the trees had lost their leaves, and it got dark very early. I thought that Washington was the ends of the Earth."

pl of 4

Valdes studied geography and cartography — the art of map-making — at the University of Maryland. After college, he worked as a cartographer at the World Bank.

Before long, Valdes found his way to National Geographic, starting off as a typographer in the maps department in 1975. "In order to master the craft of cartography, it was almost like a trade apprenticeship," he said. First, he had to familiarize himself with the National Geographic's typography rules — that is, the fonts and style of text in their writings and how they are used. He had to set text onto photos and images and other layouts by hand, without the help of computers.

"Once you mastered that art ... you could go into map production, research, or editorial," Valdes says.

Valdes found his cartographic passion in researching and editing maps. He eventually worked his way to a lead position as director for Editorial and Research.

In his long career, Valdes has seen many changes in the way maps are produced. The quickness of accessing information now has been "the most amazing thing to occur over the past 20 years," he says.

"Back then, no one blinked an eye if you had to get on a plane to go to the source to get the information. Consequently, the time to produce a map was a lot longer." Detailed maps that once took a year to make now only take five weeks or less, he says.

What Is The Most Exciting Part Of Your Work?

"I think what's most exciting is that you really don't realize what a dynamic place this Earth is until you map it on a daily basis," Valdes says. It's not just political changes, he says. Mountains change heights, he notes, and fault lines — the large cracks in the earth — are always changing and forming.

What Is The Most Demanding Part Of Your Work?

"Keeping your finger on the pulse of geopolitical issues," he says. Those issues "can be really static one day," and the next it's "changes needed on a map coming at you left and right."

How Do You Define Geography?

"I think geography ... is what provides context to our lives. At the most basic level, where you live pretty much dictates who [you] are. At a more abstract level, your daily functions — whether it be the food you eat, the beverages that you drink, or the type of car that you drive — are all one way or another dictated by geography."

Geo-Connection

Valdes starts his day by checking newspapers and news websites for any changes in the world's geography that might have occurred overnight. He checks his messages on email and phone to see if anyone at the U.S. State Department or foreign embassies have new information on changing place names, political boundaries, or physical features of the Earth.

Then, it's off to the races: researching and editing maps for the Map Policy Committee at the National Geographic Society. Valdes and his team collect and edit maps that appear in atlases, magazines, websites, mobile apps and other products that National Geographic publishes.

Sometimes readers will contact National Geographic to tell them a place name has changed, Valdes says. If the change is approved by the Map Policy Committee, it will be updated the next time a map containing that name is published.

In the last months of 2010 alone, Valdes says, the Netherlands Antilles was dissolved and some of the islands became their own countries. Louisiana officially changed its state flag. And the Queen Charlotte Islands, off the coast of Vancouver, Canada, were renamed Haida Gwaii. Many places are officially returning to their former indigenous or historical names, he says.

According to Valdes, maps of the United States are typically updated three times a year. When such changes occur, Valdes will put out an email notifying the staff of the National Geographic GeoBee. GeoBee staff members need to be informed of changes right away, as they make up questions for geography competitions held around the country.

So, You Want To Be A Geographer

To be a skilled geographer, Valdes recommends dabbling in a wide variety of academic subjects. "Geography needs to be your core area of focus in your studies," he says. But whether it's history, mathematics or the arts, "they're all interconnected," he says.

To stay on top of geographic issues, Valdes recommends brushing up on your knowledge of history. "With a good background in history, you can see exactly how all the pieces of current-day events are interconnected to the past, the present, and ultimately the future." Checking daily news from around the world helps.

Grade 8 Day 6 Careers

p 3 of 4

1 Read the paragraph from the section "What Is The Most Exciting Part Of Your Work?"

"I think what's most exciting is that you really don't realize what a dynamic place this Earth is until you map it on a daily basis," Valdes says. It's not just political changes, he says. Mountains change heights, he notes, and fault lines — the large cracks in the earth — are always changing and forming.

Which word in the paragraph helps the reader understand what "dynamic" means?

- (A) daily
- (B) map
- (C) changes
- (D) heights

2 What is the MAIN reason the author includes the section "Early Work"?

- (A) to compare the job of a typographer with the job of a cartographer
- (B) to compare how maps used to be produced with how they are produced today
- (C) to describe the steps Valdes took to become an official geographer
- (D) to describe how Valdes felt about being in Washington, D.C., during the winter

3 Read the last paragraph of the article.

To be a skilled geographer, Valdes recommends dabbling in a wide variety of academic subjects. "Geography needs to be your core area of focus in your studies," he says. But whether it's history, mathematics or the arts, "they're all interconnected," he says.

Which word, if it replaced "core" in the second sentence, would change the meaning of the sentence?

- (A) essential
- (B) primary
- (C) fundamental
- (D) ordinary

4 Read the introduction [paragraphs 1-3].

How does the introduction develop the main idea of the article?

- (A) by showing that Valdes helps other people as a geographer
- (B) by explaining why Valdes wanted to become an official geographer
- (C) by describing some of the tasks that Valdes does as a geographer
- (D) by listing in chronological order the jobs Valdes had as a geographer