

Lewis County Middle School

8th Grade NTI Day 29

Contents:

- **Language Arts**
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- **Science**
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Day 29: Complete ONLY ONE of the four prompts. You should complete the same number each day. (Ex: Always complete #4 every day from 21-30)

1. NTI Daily Reading Log

Directions: Choose a book or some articles and spend at least 20 minutes a day reading. After you read, record the date, name of the book, the time you spent reading, and the number of pages you read in the reading log for that day. Then, write a summary of a few sentences about what you read. Remember the summary practice you completed in the previous week to help you capture key details in your log.

Day 29

Date:	Name of Book:	Time Spent Reading:	Number of Pages Read:

Day 29 Summary: (1-2 sentences about what you read)

2. Journaling Directions and Rubric

Journaling is a great way to reflect on things that happen during your day, get to know yourself better, reduce stress, clarify your thoughts and feelings, and (of course) become a stronger writer.

Reminder: This journal will remain confidential. That is, it will stay between you and your teacher unless you write something that shows that you want to hurt yourself or others or you write something that shows someone wants to hurt you. (Everything must be in accordance with applicable state and federal law regarding confidentiality)

Directions: Each day, complete a 100-200 word writing in a physical or online journal (like a Google Doc). You can either respond to the daily prompts or simply record important events in your life, consider current events, or make a gratitude/happiness record. You might consider how a journal record of your perspective during current events might be interesting to study in the future. You can write more, but keep in mind that your goal is 100-200 words.

Turn in your journal entries weekly on Google Classroom. That is, turn in days 21-25 together and days 26-30 together.

Day 29: You have been selected to be monarch (like a king or queen) of your school. What rules would you put in place? List at least five. What punishments would be in place for rule breakers?

3. i-Ready Reading Directions and Rubric

Complete the three lessons assigned to you on i-Ready Reading. Aim to work 20-30 minutes per day. Log your i-Ready work time in the chart below and the score you get on quizzes. Turn in a copy of this log each week. That is, turn in days 21-25 on Google Classroom and days 26-30 separately on Google Classroom.

Day 29: Analyzing Word Choice: Connotation

Date:	Lesson Title:	Time spent working:
Lesson Complete? Quiz Score:	In one complete sentence, what is something you learned from this lesson today?	

4. Multimedia Prompts Directions and Rubric

Directions: For each day, create a thoughtful image that meets the requirements of each prompt. Feel free to be creative! Fill the page with color/drawings. Put effort into your assignment and take pride in each day's work. You can take pictures of these images and submit them on Google Classroom, via email, or on paper.

Day 29: Think about different mediums for communication like print (books/articles), movies, tv, social media, and others. Choose one method of communication (like a picture book or Twitter or movie) and create an illustration of that medium. Include 3 advantages to using that form of media and 3 disadvantages. Ex: Books - draw your favorite book and list advantages: (1) can be read any time even without internet and disadvantages (1) does not provide sound; people cannot listen to it

Are YOU Ready?

Complete these exercises to review skills you will need for this module.

NTI
Math
Day 29

this page only



my.hrw.com

Personal
Math Trainer

Online
Assessment and
Intervention

Simplify Fractions

EXAMPLE

Simplify $\frac{18}{30}$

$$\begin{array}{l} 1, 2, 3, 6, 9, 18 \\ 1, 2, 3, 5, 6, 10, 30 \\ 18 \div 6 = 3 \\ 30 \div 6 = 5 \end{array}$$

List all the factors of the numerator and denominator.

Find the greatest common factor (GCF).
Divide the numerator and denominator by the GCF.

Write each fraction in simplest form.

1. $\frac{25}{30}$ _____

2. $\frac{27}{36}$ _____

3. $\frac{14}{16}$ _____

4. $\frac{15}{45}$ _____

5. $\frac{27}{63}$ _____

6. $\frac{45}{75}$ _____

7. $\frac{8}{27}$ _____

8. $\frac{16}{28}$ _____

Fractions, Decimals, Percents

EXAMPLE

Write $\frac{13}{20}$ as a decimal and a percent.

$$\begin{array}{r} 0.65 \\ 20 \overline{) 13.00} \\ \underline{12 } \\ 100 \\ \underline{100} \\ 0 \end{array}$$

Write the fraction as a division problem.
Write a decimal point and zeros in the dividend.

Place a decimal point in the quotient.

$0.65 = 65\%$ Write the decimal as a percent.

Write each fraction as a decimal and a percent.

9. $\frac{7}{8}$ _____

10. $\frac{4}{5}$ _____

11. $\frac{5}{4}$ _____

12. $\frac{3}{10}$ _____

13. $\frac{19}{20}$ _____

14. $\frac{7}{25}$ _____

Find the Percent of a Number

EXAMPLE

6.5% of 24 = ?

Write the percent as a decimal.

$6.5\% = 0.065$

$$\begin{array}{r} 24 \\ \times 0.065 \\ \hline 1.56 \end{array}$$

Multiply.

Find each percent of a number.

15. 4% of 40 _____

16. 7% of 300 _____

17. 4.3% of 1,200 _____

18. 2.9% of 780 _____

19. 1.6% of 75.20 _____

20. 3.56% of 3,200 _____

Are **YOU** Ready?

Complete these exercises to review skills you will need for this module.

Simplify Fractions

21. Explain how to write $\frac{45}{70}$ in simplest form.

Fractions, Decimals, Percents

22. Dina wrote $\frac{18}{15}$ as 1.2 and as 120%. Justify her answers.

Find the Percent of a Number

23. To find 3.5% of 1,050, Enrique wrote $1,050 \times 3.5 = 3,675$. Find and correct Enrique's error.

24. Soccer cleats cost \$85. The sales tax is 7%. If Lori has \$90, does she have enough money to buy the soccer cleats? Explain.

Day 29 Science

Absolute dating

What is absolute dating? Relative dating provides information about the sequence of events in Earth's history. **Absolute dating** is a method of estimating the age of a fossil in years. Scientists use both absolute and relative dating to develop the geologic time scale. Absolute dating requires the use of a natural "clock." That clock is the *radioactive decay* of certain naturally-occurring elements like uranium and carbon.

What is radioactive decay? Elements that undergo radioactive decay contain *unstable atoms*. All atoms are made of tiny particles held together by strong forces. Atoms of different elements contain different numbers of particles. Unstable atoms contain more particles than can be held together by the strong forces. They undergo radioactive decay by releasing some of those particles. In the process, they transform into different kinds of atoms. For example, when uranium atoms decay, one of the products is lead atoms (Figure 14.20).

What is half-life? **Half-life** is the amount of time it takes for half of the unstable atoms in a sample to decay. Half-lives range from fractions of a second to billions of years. In a sample of uranium-238, it takes 4.5 billion years for half of the uranium atoms to transform into lead atoms. The half-life of carbon-14 is 5,730 years (Figure 14.20). One of the products of carbon-14 decay is nitrogen.

Using absolute dating Scientists estimate the age of fossils by measuring the ratio of unstable to stable atoms in a sample of rock from a fossil. Earth's age is estimated by measuring the radioactive decay of uranium to lead. Scientists compared the amount of lead to uranium in a piece of uranium ore. With that measurement, the age of Earth was estimated to be about 4.6 billion years. The fossils of ancient bacteria, the first life forms, have been dated to be over 3 billion years old.

Name _____
Team _____

A VOCABULARY

absolute dating - a method of estimating the age of a rock sample in years.

half-life - the amount of time it takes for half of the unstable atoms in a sample to decay.

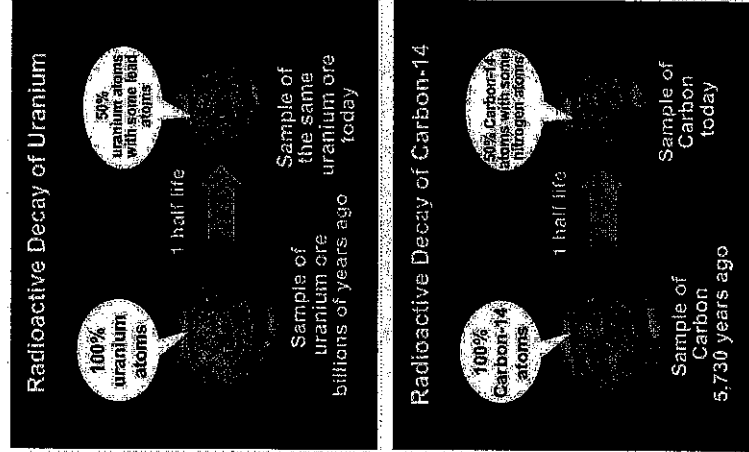


Figure 14.20: The half-life of uranium-238 is 4.5 billion years. The half-life of carbon-14 is 5,730 years.

Name _____ Team _____

Science NTI Day 29- Absolute Dating

1. Define absolute dating.
 - a) A method of estimating the age of a rock sample in years using radioactive decay
 - b) A method of estimating the age of a rock based on how they are found in layers of rock
 - c) Both a and b
 - d) None of the above

2. Absolute dating requires the use of a natural clock. That clock is the radioactive decay of certain naturally occurring elements like _____ and carbon.
 - a) Superposition
 - b) Uranium
 - c) Half-life
 - d) None of the above

3. The amount of time it takes for half of the unstable atoms in a sample to decay.
 - a) Superposition
 - b) Uranium
 - c) Half-life
 - d) None of the above

4. Scientists estimate the age of a fossil by measuring the ratio of unstable to stable atoms in a sample of rock. What is a "ratio?"
 - a) shows how one number is equal to another set of numbers, example 1 Dollar = 4 quarters
 - b) shows how much of one thing there is compared to another thing, example 3:1
 - c) shows how the number of things in a group increases, example $2 \times 3 = 6$
 - d) None of the above

Day 29: Maynard/Robinette

Transcontinental Railroad Connected the United States from East to West

In 1862, the Pacific Railroad Act authorized the operation of the Central Pacific and the Union Pacific Railroad Companies. Both companies were tasked with building a transcontinental railroad that would link the United States from east to west. The first American-built steam locomotive, named Tom Thumb, had made its debut in 1830. Despite losing a race to a horse-driven car, the locomotive demonstrated its potential. Over the next two decades, railroad tracks linked many cities on the East Coast.

By 1850, about 9,000 miles of track had been laid east of the Missouri River, and the first settlers had begun to move westward across the United States. This trend increased dramatically after the discovery of gold in California in 1849. However, the trip across mountains, plains, rivers and deserts was treacherous. The alternative required a six-month route around South America or the passage through Panama in Central America.

A young engineer named Theodore Judah decided to find a better solution. In 1860, he chose Donner Pass as the best path through California's Sierra Nevada mountains. The pass was famous for being particularly dangerous — in 1846, an expedition of settlers was blocked by snow, with only half of the group surviving.

Central Pacific Railroad Company is formed

By 1861, Judah had enlisted a group of investors in Sacramento: Charles Crocker, Leland Stanford, Collis Huntington and Mark Hopkins. Together they formed the Central Pacific Railroad Company. Judah headed to Washington, D.C., where he gained the support of members of Congress and President Abraham Lincoln, who signed the Pacific Railroad Act into law the following year.

The act said the Central Pacific Railroad Company would start building in Sacramento, California, and continue east across the Sierra Nevada. A second company, the Union Pacific Railroad, would build westward from the Missouri River, near the Iowa-Nebraska border.

Each company received land and, based on the location, \$16,000 to \$48,000 for every mile of track built. From the very start, the transcontinental railroad was set up as a competition between the two companies to build more miles than the other. The Central Pacific started railroad construction in 1863, but Judah passed away soon after. His cause of death was yellow fever, a disease he caught while traveling near Panama on his way east.

Union Pacific Railroad Company launches

Meanwhile, in Omaha, Thomas Durant was the main authority in the Union Pacific Railroad Company. He also set up a company called Crédit Mobilier, which became notorious for corruption. Through this company, lawmakers and even the vice president were bribed into giving out extra government funding for construction. As a result, members of Union Pacific made large profits long before the railroad was operational.

In 1863, the Union Pacific celebrated its launch, but little would be completed until the end of the Civil War in 1865. Army hero General Grenville Dodge, who had fought for the Union against the Southern Confederates, took charge of the Union Pacific Company after the Civil War. As the company moved westward in 1866, its workers suffered bloody attacks by Native Americans. Members of the Sioux, Arapaho and Cheyenne tribes saw their native lands under threat by the white man and his "iron horse."

Still, the Union Pacific moved quickly across the plains. The Central Pacific Railroad Company's progress through the mountain ranges was much more difficult, and thus far slower.

Settlements generate wild behavior

Ramshackle settlements popped up wherever the railroad went. These settlements were full of drinking, gambling, prostitution and violence and produced the enduring mythology of the "Wild West."

In 1865, the Central Pacific was struggling to keep workers from quitting due to the difficulty of the labor. Charles Crocker, therefore, began hiring Chinese laborers. Many Chinese immigrants had arrived to the West Coast during the Gold Rush. The choice of hiring them was controversial, as widespread racism fed the belief that the Chinese were inferior to whites. By

contrast, the workforce of the Union Pacific was mainly Irish immigrants and Civil War veterans. Regardless, the Chinese laborers proved to be tireless workers. By early 1867, more than 10,000 were toiling under brutal working conditions in the Sierra Nevada mountains.

By the summer of 1867, the Union Pacific was in Wyoming, covering far more ground than the Central Pacific. The Central Pacific broke through the mountains in late June, which meant the hard part was finally behind them. Both companies headed toward Salt Lake City, while cutting many corners in their race to get ahead. They built shoddy bridges or sections of track that had to be rebuilt later.

Final tracks are laid

By early 1869, the two companies were working only miles from each other, and the new president, Ulysses S. Grant, pressured them to choose a location at which to connect. The companies finally chose to join at Promontory Summit, north of the Great Salt Lake.

On May 10, after several delays, the final tracks were laid down to link the Central and Union Pacific railroads. The news immediately went out to President Grant and around the country that the transcontinental railroad had been completed.

Answer the following and return to either Mr. Maynard or Mr. Robinette:

Day 29

1. Read the paragraph from the section "Settlements generate wild behavior."

By the summer of 1867, the Union Pacific was in Wyoming, covering far more ground than the Central Pacific. The Central Pacific broke through the mountains in late June, which meant the hard part was finally behind them. Both companies headed toward Salt Lake City, while cutting many corners in their race to get ahead. They built shoddy bridges or sections of track that had to be rebuilt later.

Which idea is BEST supported by this paragraph?

- a. Promoting competition between the two railroad companies caused the Union Pacific to reveal itself as the superior railroad company.
 - b. Advocating competition between the two railroad companies while failing to account for different geographic features resulted in resentful feelings.
 - c. Encouraging competition between the two railroad companies resulted in a finished product that was subpar in quality.
 - d. Nurturing competition between the two railroad companies was clearly a major mistake and caused humiliation for the government for years.
2. Which section of the article BEST explains why a transcontinental railroad became a necessity for the United States?
 - a. Introduction [paragraphs 1-4]
 - b. "Central Pacific Railroad Company is formed"
 - c. "Union Pacific Railroad Company launches"
 - d. "Settlements generate wild behavior"
 3. Based on the article, with which of the following statements would the Central Pacific Railroad Company MOST LIKELY agree?
 - a. Controversy should be avoided at all costs, even if it means failing to hire a qualified employee.
 - b. Hard work and commitment are the most important qualities to look for in an employee.
 - c. Employees should not be required to work under brutal and difficult conditions.
 - d. If employees keep quitting, the company should improve its working conditions to get them back.
 4. How does the article develop the idea that the construction of the transcontinental railroad was not completed in an entirely honest manner?
 - a. by mentioning that racial discrimination was an issue in the country at this time
 - b. by detailing how one railroad company was attacked by several Native American tribes
 - c. by describing how the railroad companies were given different amounts of money based on location
 - d. by explaining how one railroad company bribed government officials for extra funding

