Lewis County Middle School
8th Grade NTI Day 24

Contents:
- **Language Arts**
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- **Social Studies**

School Phone: 606-796-6228

Teams:

William.maynard@lewis.kyschools.us
Julee.howard@lewis.kyschools.us
Karen.jones@lewis.kyschools.us
John.liles@lewis.kyschools.us

Rick.robinette@lewis.kyschools.us
Alexis.enix@lewis.kyschools.us
Bj.thornsberry@lewis.kyschools.us
Chris.bryan@lewis.kyschools.us

Name_____ Team_____

◯Science NTI Day 24- How Earth Changes

1. An ancient supercontinent that broke apart to form today's continents.

   a) Pangea

   b) Plate Tectonics

   c) Lithospheric Plates

   d) Superposition

2. Giant pieces of solid rock on Earth's surface.

   a) Pangea

   b) Plate Tectonics

   c) Lithospheric Plates

   d) Superposition

3. Theory that describes how the continents move.

   a) Pangea

   b) Plate Tectonics

   c) Lithospheric Plates

   d) Superposition

4. _____ theorized that the continents that we know today had been part of an earlier supercontinent he named Pangea, meaning all earth.

   a) Albert Einstein

   b) Alfred Wegener

   c) Alfred Hitchcock

   d) none of the above

Defining Battles of the Civil War

The American Civil War was the bloodiest war in American history. During the four years it lasted, more than 50 major battles were fought. Below are five of the most significant battles, listed in chronological order.

First Bull Run (July 21, 1861)
The first Battle of Bull Run was the first major land battle of the Civil War. It is also known as the first Battle of Manassas. The Union Army under General Irvin McDonnell marched from Washington, D.C., to seize the Confederate capital of Richmond, Virginia. Approximately 25 miles into the march, their path was blocked by the Confederate Army under the command of General P. G. T. Beauregard.

At first, it seemed as if the Union Army would prevail, but as the battle raged throughout the morning, the Confederates held their ground. Once the Confederate Army received reinforcements early that afternoon, their counterattack defeated the Union troops. Union forces then retreated to Washington, D.C.

Combined casualties were few in comparison with other battles — around 4,800. However, as a result of the battle, the North first realized it was in for a long, bitter war.

Shiloh (April 6-7, 1862)
By February 1862, the Union Army had achieved victories in central Kentucky and Tennessee. The army planned to move south and capture an important Confederate east-west railway hub in northern Mississippi. To defend the hub, Confederate General Albert Sidney Johnston fortified the town of Corinth, Mississippi. The Union planned to unite two armies, under Ulysses S. Grant and Don Carlos Buell, and then take Corinth.

Grant's army arrived first and set up camp in the town of Pittsburg Landing, Tennessee, near the Shiloh Meeting House. Johnston planned to strike Grant's army before Buell arrived, and at dawn on April 6, his forces attacked. Grant's forces were surprised but remained in the field after a day of fierce fighting. Buell's forces finally arrived overnight, and the combined Union force attacked at dawn. During the fighting, General Johnston was fatally wounded. The defeated Confederate forces — now under the command of Beauregard — withdrew.

The battle resulted in combined casualties of more than 23,000.

Antietam (September 17, 1862)
Confederate General Robert E. Lee had decided to take the war to the North. He devised a plan to split his army and take supplies in Maryland, move into Pennsylvania, and threaten Washington, D.C. His plans accidentally fell into Union hands, and the Union Army marched to confront the forces he commanded at Antietam Creek. However, Union General McClellan waited 18 hours before moving his troops. This gave the Confederates time to bring in reinforcements.

The day ended in a draw, with 23,000 men killed. However, the battle halted Lee's plans to invade the North for the time being. Nonetheless, President Abraham Lincoln was furious that McClellan had allowed Lee to escape.

Gettysburg (July 1-3, 1863)
Although Antietam was a setback to Lee's plans, the Union failed to take advantage of the situation. Lincoln replaced McClellan, but his new generals lost decisively at Fredericksburg, Virginia (December 13, 1862), and Chancellorsville, Virginia (April 30 – May 4, 1863). These Confederate victories encouraged Lee to renew his plan to invade the North.

Lee moved the Army of Northern Virginia north, and the new Union General George Meade shadowed him to protect Philadelphia, Baltimore and Washington, D.C. The forces met at Gettysburg, Pennsylvania, on the morning of July 1. Despite early successes, the Confederate forces were not able to drive the Union Army off of the heights. The following day, as reinforcements arrived for both sides, Lee again failed to defeat the Union Army.

July 3 saw one last push from the Confederates. Lee ordered what has become known as the Pickett's Charge — an assault of some 15,000 Confederate troops — up Cemetery Ridge. Although the charge broke through Union lines, the Confederates were unable to hold on to their gains and retreated.

Lee prepared for the counterattack he expected the next day, but it never came. He withdrew his forces on July 4, and the Union Army did not pursue. While Meade won the battle and stopped the invasion, he failed to destroy Lee's army and put an end to the rebellion.

Union casualties numbered around 23,000, while Confederate casualties numbered around 28,000.

Vicksburg (May 22–July 4, 1863)
Vicksburg, Mississippi, lies on the east bank of the Mississippi River about halfway between Memphis, Tennessee, to the north and New Orleans, Louisiana, to the south. Capturing it would give control of the entire Mississippi to the Union. However, the city, located on a bluff overlooking the river, was heavily defended with trenches, gun batteries, and a Confederate Army led by General John C. Pemberton.

In May, Union General Ulysses S. Grant led an army south on the west side of the Mississippi past Vicksburg, then crossed over and led his troops back north to lay siege to the city. By mid-June, the Confederates were running low on supplies. General Pemberton surrendered on July 4.

The victories — a day apart — at Gettysburg and Vicksburg marked the turning point of the Civil War.
These are just some of the war's major battles. The Civil War killed hundreds of thousands and scarred the countryside. Today, many battlefield sites contain monuments and plaques and have been set aside as national parks.

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

Day 24

1. **Read the paragraph from the section "First Bull Run (July 21, 1861)."**

At first, it seemed as if the Union Army would prevail, but as the battle raged throughout the morning, the Confederates held their ground. Once the Confederate Army received reinforcements early that afternoon, their counterattack defeated the Union troops. Union forces then retreated to Washington, D.C.

Which word from the selection shows a triumphant tone?

   a. Prevail
   b. Raged
   c. Reinforcements
   d. Counterattack

2. **Read the selection from the section "Gettysburg (July 1-3, 1863)."**

   Although Antietam was a setback to Lee's plans, the Union failed to take advantage of the situation. Lincoln replaced McClellan, but his new generals lost decisively at Fredericksburg, Virginia (December 13, 1862), and Chancellorsville, Virginia (April 30 – May 4, 1863).

   Which two words would BEST replace "setback" and "decisively" in the selection above?

   a. Obstacle; mysteriously
   b. Impediment; clearly
   c. Catalyst; courageously
   d. Revitalization; horribly

3. **How are the article's sections organized to help develop understanding?**

   a. Each of the five sections after the introduction highlight a significant battle in the Civil War in order of importance.
   b. Each of the five sections after the introduction highlight a significant battle in the Civil War in chronological order.
   c. The first three sections after the introduction describe battles that the Union Army won and the last two sections describe battles that the Confederate Army won.
   d. The first three sections after the introduction describe battles that the Confederate Army won and the last two sections describe battles that the Union Army won.

4. **What is one reason why the author includes the information about the battles at Gettysburg and Vicksburg?**
   a. The battles at Gettysburg and Vicksburg were the last two battles when the Confederate Army was victorious.
   b. The battles at Gettysburg and Vicksburg were the two battles that were the bloodiest and most ineffective.
   c. The battles at Gettysburg and Vicksburg were the last two battles fought between the Union Army and Confederate Army.
   d. The battles at Gettysburg and Vicksburg were the two battles where the tide turned in favor of the Union Army.

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 24: Summarizing Informational Text

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 24: Create a bookmark with at least three things you learned in English Language Arts this year. Illustrate the bookmark!

Day 24: 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 24

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

Day 24 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 24: If you could meet any character from a book, movie, or tv show, who would it be? What would you say to them, and what would they say to you?

Are YOU Ready?

Complete these exercises to review skills you will need *NTI Math Day 24 this page only* for this module.

Simplify Ratios

EXAMPLE
$$\frac{35}{21} = \frac{35 \div 7}{21 \div 7}$$
$$= \frac{5}{3}$$

To write a ratio in simplest form, find the greatest common factor of the numerator and denominator. Divide the numerator and denominator by the GCF.

Write each ratio in simplest form.

1. $\frac{6}{15}$ _____   **2.** $\frac{8}{20}$ _____   **3.** $\frac{30}{18}$ _____   **4.** $\frac{36}{30}$ _____

Multiply with Fractions and Decimals

EXAMPLE
$$2\frac{3}{5} \times 20$$
$$\frac{13 \times 20}{5 \times 1}$$
$$\frac{13 \times \overset{4}{20}}{\underset{1}{5} \times 1}$$
$$= 52$$

Write numbers as fractions and multiply.

Simplify

$$\begin{array}{r} 6.8 \\ \times 4.5 \\ \hline 3.40 \\ 27.2 \\ \hline 30.60 \end{array}$$
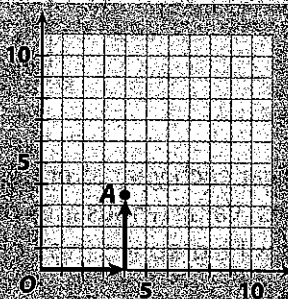
Multiply as you would with whole numbers.

Place the decimal point in the answer based on the total number of decimal places in the two factors.

Multiply.

5. $60 \times \frac{25}{100}$ **6.** 3.5×40 **7.** 4.4×44 **8.** $24 \times \frac{8}{9}$

_____   _____   _____   _____

Graph Ordered Pairs (First Quadrant)

EXAMPLE

Graph the point A(4, 3.5)
Start at the origin.
Move 4 units right.
Then move 3.5 units up.
Graph point A(4, 3.5)

Graph each point on the coordinate grid above.

9. $B(9, 0)$ **10.** $C(2, 7)$ **11.** $D(0, 4.5)$ **12.** $E(6, 2.5)$

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

Simplify Ratios

13. a. Explain how to find the simplest form of a ratio.

   **b.** Describe what these ratios have in common.

   $\dfrac{75}{100}, \dfrac{24}{32}, \dfrac{15}{20}, \dfrac{9}{12}$

Multiply with Fractions and Decimals

14. To find $32 \times 1\frac{3}{4}$, Jose rewrote $1\frac{3}{4}$ as $\frac{6}{4}$ and multiplied to get 48. Find and correct Jose's error.

Graph Ordered Pairs (First Quadrant)

15. If the *x*- and *y*-coordinates of each of the points shown are doubled, what are the coordinates of the resulting points? Can they be graphed on the same grid? Explain.
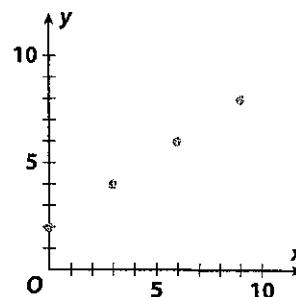
16. Adam drew a graph by plotting the value of a car each year after purchase. The *x*-axis label was "Time (years)" and the *y*-axis label was "Value (thousands of dollars)." The car's value was $5,749 after 4 years. Explain how he graphed this point.

Name ____
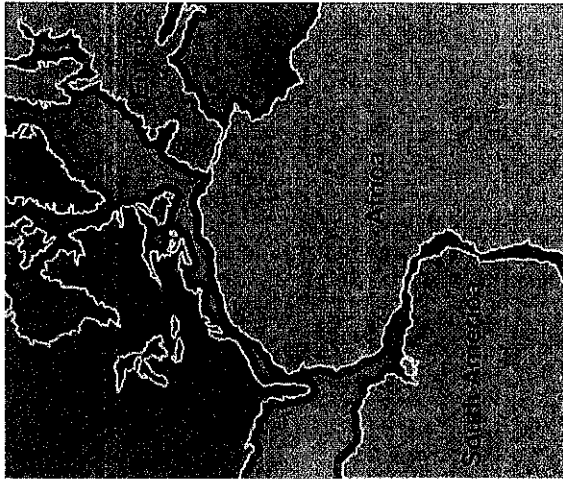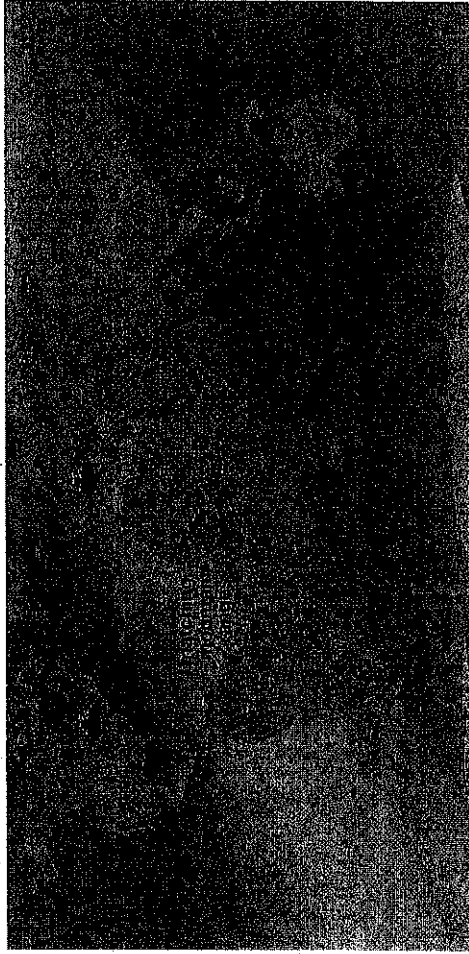
Team ____

Science Day 24

14.2 How Earth Changes

In their work, geologists study the features that are observable today, to interpret the ancient geologic record. For example, geologists have used the fossil record to determine how and why Earth's environments have been slowly changing over millions of years.

Pangaea

A supercontinent called Pangaea

In 1915, Alfred Wegener (1880–1930) theorized that the continents that we know today had been part of an earlier supercontinent. He called this great landmass **Pangaea**. According to his theory, Pangaea broke apart and the pieces drifted to their present places, becoming today's continents.

Evidence to support Wegener's theory

To support his theory, Wegener observed that fossils of plants and animals found on different continents were very similar. Also, there were matching geologic features on both sides of the Atlantic Ocean. Furthermore, the current shapes of the continents seemed to fit together like puzzle pieces (Figure 14.10).

Figure 14.10: *The continents on either side of the Atlantic Ocean fit together like puzzle pieces.*
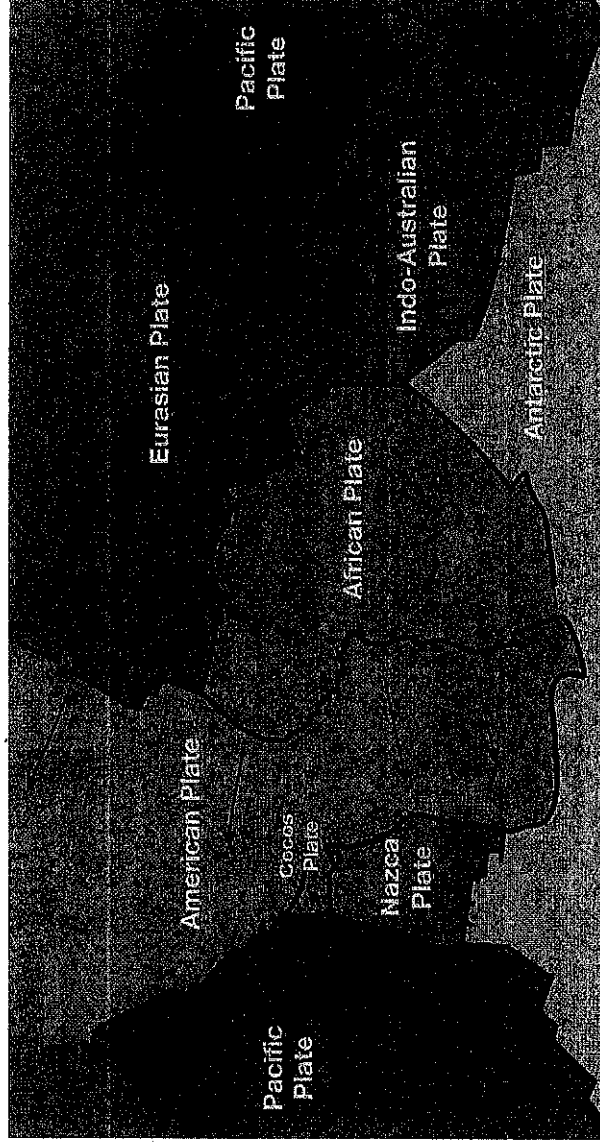
Plate tectonics

What is plate tectonics?

How the continents move is explained by a theory called **plate tectonics**. Earth's outer layers are called the *lithosphere*. The theory of plate tectonics, first stated in 1965, refers to the movement of giant pieces of the lithosphere called **lithospheric plates**. The movement of one plate causes the pulling or pushing of other plates, significantly affecting Earth's surface. There are seven large lithospheric plates and many smaller ones.

Pacific Plate

Eurasian Plate

Pacific Plate

American Plate

Cocos Plate

Nazca Plate

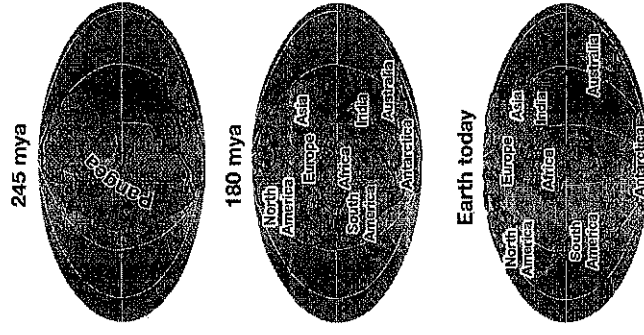African Plate

Indo-Australian Plate

Antarctic Plate

Movement of tectonic plates

Forces beneath the lithosphere cause the plates to move. Some plates include continents (Figure 14.11). The continents move with their plates. The plates that include North America and Europe are moving apart at a rate of a little over 2 centimeters each year. By comparison, your fingernails grow at a rate of 2.5 centimeters a year. Though that rate may seem slow, it has produced enormous changes in Earth's surface over millions and millions of years.

245 mya

Pangea

180 mya

North America, Europe, Asia, India, South America, Africa, Australia, Antarctica

Earth today

North America, Europe, Asia, India, South America, Africa, Australia, Antarctica

Figure 14.11: *The movement of lithospheric plates causes the continents to move.*

14.2 HOW EARTH CHANGES