April 30th, 2020

Dear Student,

We hope this letter finds you well! Siuslaw Middle School wanted to let you know that we appreciate all of your hard work while you are away from school. We wanted to let you know that to acknowledge what you are doing, that each week when you return your work, your name is put into weekly prize drawing. If you win, we will mail out your prize in the next homework packet.

Keep up the good work!!

Sincerely,

Sarah Girard
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Siuslaw Middle School
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SIUSLAW MIDDLE SCHOOL  
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School Website - www.siuslaw.k12.or.us  

Motivating and Preparing All Students to Reach Their Greatest Potential

Andy Marohl, Principal ◆ Darci Stuller, Vice Principal  
Sarah Girard, Counselor ◆ Jeromy Graybill, Athletic Director

Elective Forecasting Sheet 2020-2021 School Year

Name: ___________________________ Last Name ___________________________  
First Name ___________________________

Student ID # (lunch number): __________ Grade Next Year: __________

The following are Core Classes. All students for each grade take the following:  
Language Arts Social Studies Science Mathematics Physical Education  
Exploratory Rotation, Advisory

*Siuslaw Middle School has a lot of new electives this year. Make sure to read all the way through!

<table>
<thead>
<tr>
<th>Elective Options – Student Choice – please pick classes from the list below to fill out your schedule for next school year. We will do our best to see that you get one that you really like! Put your top choice first, second choice second, etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Choice</td>
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<tr>
<td>2nd Choice</td>
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<tr>
<td>3rd Choice</td>
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</tbody>
</table>

Students that are not at grade level in reading or math may have their elective replaced with a support class in those subject areas.
Art 1:
This course will follow the Elements of Art (Line, Shape, Value, Form, Space, Color, Pattern and Texture) while learning about the Studio Habits of Mind (Develop Craft and Skills, Observe, Engage and Persist, Stretch and Explore, Reflect, Envision, Express, and Understand Our World). We will experiment with a variety of art media including pencil, pen, watercolor, pastels, charcoal, tempera and acrylic paints, printmaking, clay, and more.

Art 2: In this class, students will utilize their knowledge of the elements of art and the studio habits of mind learned in Art 1 to take their artwork to their personal next level. We collaboratively create the syllabus of projects, based on students' interests and creative ideas. Each unit will combine several elements of art, a theme of exploration, and a final project that illustrates the students' understanding of both. This class will also focus on viewing and discussing works of art and critiquing each other's art in a supportive creative environment.

Advanced Band – typically for 8th grade students
Placement in a specific band will be based upon audition or relative skill level that best fit the student, as determined by the Band Director. This is a year-long commitment, first enrollment needs to be in the first semester.

Junior Choir: Have you ever heard someone say "I wish I could sing"? The truth is, you can't do anything until you learn how. SMS Choir is where stars are born!

In the Junior Choir, beginning singers learn how to make their voices beautiful and expressive. This class is for 6th graders who want to sing together with their friends, and also 7th graders who've never been in a choir before. You'll perform in concerts right here on the SMS stage, and have the opportunity to advance to our mighty varsity choir.

Viking Chorus: This highly honored group is where 7th and 8th graders who are serious about performing continue to improve their singing skills, taking their music to festivals and other special events. You'll sing pop, classical, and every kind of music, as well as solos! Ask any choir kid and they'll tell you: There's nothing like learning to sing!

Computer Science Class: This is a semester long introduction to computer science and programming. This class will explore our world of computers from microwave ovens to smartphones; computers are everywhere! Students will create games, interactive apps, a website and other experiences as they explore and practice basic coding languages, methods and concepts such as Javascript, HTML and CSS.

Digital Graphics: Learn how to design and produce logos, T-shirts, stickers, posters, coffee mugs... Turn your own doodles and artwork into products.

Drama: This will be an introduction to the theatre arts and to acting as a craft. You will be introduced to all aspects of theatre arts including: theatre history, theatre terminology, playwriting, character development, costume and makeup, improvisation, pantomime, technical theater, and of course, acting. Each day may include a number of theatre games and/or activities. A large portion of this class requires activities such as going to the theater in the commons and actual stage-work. Students will be required to perform, design and create. It doesn't matter if you're introverted or extroverted because just as the theatre provides the "ham" an acceptable outlet, it helps the shy students find a way out of their shells.
Foundational Math:
This is a math support class for students who need extra time catching up on math skills.

Game Development: From Scratch to other powerful game design engines, learn how to program your own video games.

Home Economics:
Life 101 - In this part of the class, students learn how to fill out a job application, complete a job description, learn about budgeting and taxes, how to wash clothes, etc. Crafts - This portion of the semester includes painting, making a collage and homemade cards, sewing on a button, and other crafts. Home Ec - Also included in the semester is Home Ec/Cooking. Students will learn how to make various (mostly) healthy, easy, quick foods. All students will be asked to complete a cookbook of the recipes they learn, in class. Grading is based on notes, bell ringers, being prepared for class, class participation and completing projects.

Lego Robotics: This class teaches the basics of computer programming and engineering design using the programmable Lego learning robotics kits. Students will compete in competition. (one semester).

Metals: This class will be offered at the high school. An introduction into metalworking; no experience necessary. In this one semester course you will learn three types of welding; arc, MIG, and oxy-fuel welding; sheet metal fabrication, plasma cutting, blacksmithing and foundry (casting metal).

Remotely Operated Vehicle (ROV): In this class students will be building and programming an underwater robot. You will go to competitions where you will put your robot in a pool and see how well you do against other schools. (one semester)

Tutorial:
This course is to help students who need some homework support and increase reading strategies.

Welding: An introduction into metalworking; no experience necessary. In this one semester course you will learn three types of welding; arc, MIG, and oxy-fuel welding; sheet metal fabrication, plasma cutting, blacksmithing and foundry (casting metal). This course will be located at the high school.

Wood Shop 1: Students will learn the basics of carpentry, with a focus on safety and proper tool use. We have a very skilled new woodshop teacher this year who can't wait to start teaching you how to build!

Woodshop 2: This is a course for students who want to continue their love of building. This is going to be a great class for students who have already completed Wood Shop 1. The instructor this year is a dynamic teacher that is excited to teach you more about carpentry and building!
LANGUAGE ARTS: After reading the “Types of Heroes” notes, complete the “Creating a Hero” worksheet.

MATH: I am going to continue to work on 2 dimensional and 3 dimensional shapes. We will be discussing trapezoids and parts of a circle. This week please complete the 2.2, 2.3, and 8-4 worksheet.

Some Simple Formulas to Remember:

Trapezoids Area = (Base 1 + Base 2) divided by two (times height): (½ b1+b2)h

All Area Answers should have square units.

Parts of a circle:  
Center - The middle of a circle
  Radius - The center to any point on a circle
  Diameter - The distance from one point on a circle through the center to the direct opposite side of a circle
  Chord - A line segment that connects any two points on a circle
  Central Angle - The angle created by moving from one point on a circle to the center then to another point on the circle

SCIENCE:

We will be continuing with Foundations of Matter, this week with Physical Changes. The worksheet is stand alone, so it won’t need the book to complete. Key questions to think about with states of matter and physical changes, just because it changes form does it mean that it is a new substance? Or can water be the same substance in different forms?

SOCIAL STUDIES:

Read chapter 11, then complete the Lesson 4 Geography pages.
<table>
<thead>
<tr>
<th>Essential Questions:</th>
<th>What are the five types of heroes, and what are some examples of them in pop culture?</th>
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</thead>
<tbody>
<tr>
<td>Focus:</td>
<td>Notes:</td>
</tr>
<tr>
<td>Traditional Hero:</td>
<td>Usually the son/daughter of a god or king. They have superhuman strength</td>
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<tr>
<td></td>
<td>and abilities.</td>
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<td></td>
<td>Example(s): Thor, Wonder Woman</td>
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<tr>
<td>Hero 2.0:</td>
<td>This hero may be unwilling OR active, but they have admirable traits that help</td>
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<tr>
<td></td>
<td>them on their quest.</td>
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<tr>
<td></td>
<td>Example(s): Frodo, Harry Potter, Katniss Everdeen</td>
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<tr>
<td>Anti-Hero:</td>
<td>An unconventional hero. They may have undesirable traits and/or a dark side.</td>
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<tr>
<td></td>
<td>Example(s): Batman, Jack Sparrow</td>
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<tr>
<td>Byronic Hero:</td>
<td>From Lord Byron's life and works, this anti-hero's dark side and rebellious</td>
</tr>
<tr>
<td></td>
<td>nature threaten to doom him/her.</td>
</tr>
<tr>
<td></td>
<td>Example(s): Iron Man, Phantom of the Opera</td>
</tr>
<tr>
<td>Tragic Hero:</td>
<td>These heroes ultimately die because of a fatal character flaw (or several).</td>
</tr>
<tr>
<td></td>
<td>Example(s): Romeo &amp; Juliet, Dr. Frankenstein</td>
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</tbody>
</table>

**Summary:**
Creating a Hero Worksheet

Directions: Answer the following questions to begin brainstorming a hero. Although this hero does not have to be the main character in the first story we write, keep in mind elements of the fantasy genre while thinking of your character (magic, mythical creatures, etc.).

1. My hero’s name is ________________________________.
2. He/She is a... (circle one)
   A. Traditional hero
   B. Hero 2.0
   C. Anti-Hero
   D. Tragic hero
   E. Byronic hero
3. Explain how he/she is this type of hero.

4. What are some physical traits of your hero? (For example: short, blonde hair, green eyes, etc.)

5. What are some personality traits of your hero? (For example: kind, bookish, quiet, quick to laugh, etc.)

6. Do they have any special abilities or gifts? Explain.

7. Draw or sketch a picture of your hero. (Use the back if you need more space.)
Lesson 2.2 ~ Area of a Trapezoid

Name ____________________________ Period ______ Date ______

Calculate the area of each trapezoid.

1. \[ \begin{array}{c}
6 \text{ ft} \\
\hline
5 \text{ ft} \\
\hline
10 \text{ ft} \\
\end{array} \]

2. \[ \begin{array}{c}
7 \text{ cm} \\
\hline
7 \text{ cm} \\
\hline
14 \text{ cm} \\
\end{array} \]

3. \[ \begin{array}{c}
b_1 = 7.8 \text{ m} \\
\hline
b_2 = 4.2 \text{ m} \\
h = 9.4 \text{ m} \\
\end{array} \]

4. One of the bases of a trapezoid is 7 inches, the other base is 4 inches and the height is 3 inches. What is the area of the trapezoid?

5. Jorge’s new yard is in the shape of a trapezoid. One of the parallel sides is 25 feet long. The other parallel side is 18 feet long. There is 16 feet between the two parallel sides.
   a. Sketch and label a diagram of Jorge’s new yard.

   b. How many square feet of sod will Jorge need for his new yard?

Find each missing measure.

6. Area = 50 \text{ ft}^2

7. \[ A = 99 \text{ cm}^2 \]

8. \[ A = 40.95 \text{ m}^2 \]

9. A trapezoid is 64 \text{ cm}^2. The height is 12 cm and one base is 4 cm. What is the length of the missing base?

10. A flower box has two sides that are the shape of a trapezoid. The area of one side is 200 square inches. One of the bases is 12 inches and the other base is 8 inches. Find the height of the flower box.
Lesson 2.3 ~ Parts of a Circle

1. Sketch a diagram of \( \odot A \) with chord \( MT \).

2. Sketch a diagram of circle \( W \) with a radius \( PW \) and a diameter \( GT \).

Label each of the following on the circle at the right.

3. center \( H \)
4. radius \( HM \)
5. diameter \( PR \)
6. central angle \( PHM \)
7. chord \( DG \)

Identify each of the following using \( \odot Z \).

8. four radii
9. two diameters
10. two chords
11. three central angles

12. The radius of circle \( M \) is 4 inches. What is the length of the diameter?
13. A circular swimming pool has a diameter of 24.8 \( m \). What is the radius of the pool?
14. Describe the relationship between the radius and the diameter of a circle.

Solve for \( x \).

15. \[
\begin{align*}
110^\circ & \quad 70^\circ \\
70^\circ & \quad x^\circ
\end{align*}
\]

16. \[
\begin{align*}
151^\circ & \quad 82^\circ \\
x^\circ & \quad 98^\circ
\end{align*}
\]

17. A circle has five central angles. Three of which are 65\(^\circ\) each. Give two different pairs of angle measures that could be the fourth and fifth angles.
Practice 8-4

Areas of Other Figures

Find the area of each trapezoid.
1. \[ \text{18 ft} \]
   \[ \begin{array}{c}
   9 \text{ ft} \\
   12 \text{ ft} \\
   11 \text{ ft} \
   \end{array} \]
2. \[ \begin{array}{c}
   16.4 \text{ mm} \\
   9.7 \text{ mm} \\
   10.6 \text{ mm} \\
   24.8 \text{ mm} \\
   \end{array} \]
3. \[ \begin{array}{c}
   21.5 \text{ mi} \\
   12 \text{ mi} \\
   7 \text{ mi} \\
   9 \text{ mi} \\
   6 \text{ mi} \\
   \end{array} \]
4. \[ \begin{array}{c}
   8 \text{ m} \\
   10 \text{ m} \\
   14 \text{ m} \\
   \end{array} \]

Find the area of each irregular figure.
5. \[ \begin{array}{c}
   6 \text{ ft} \\
   18 \text{ ft} \\
   26 \text{ ft} \\
   39 \text{ ft} \\
   29 \text{ ft} \\
   \end{array} \]
6. \[ \begin{array}{c}
   12 \text{ cm} \\
   9 \text{ cm} \\
   7 \text{ cm} \\
   3 \text{ cm} \\
   2 \text{ cm} \\
   \end{array} \]

Solve.
7. The flag of Switzerland features a white cross on a red background.
   a. Each of the 12 sides of the cross has a length of 15 cm. Find the area of the white cross.
   b. The flag has dimensions 60 cm by 60 cm. Find the area of the red region.
8. A trapezoid has an area of 4 square units, and a height of 1 unit. What are the possible whole-number lengths for the bases?
We are continuing to learn about Foundations of Chemistry this week with Physical Changes and Conservation of Matter

**Key Concepts**
- How can a change in energy affect the state of matter?
- What happens when something dissolves?
- What is meant by conservation of mass?

**Physical Changes**

The identity of the substance remains the same. No new substance if formed, which means no chemical bonds are broken or created.

**Before You Read**

**What do you think?** Read the two statements below and decide whether you agree or disagree with them. Place an A in the Before column if you agree with the statement or a D if you disagree. After you've read this lesson, reread the statements to see if you have changed your mind.

<table>
<thead>
<tr>
<th>Before</th>
<th>Statement</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>Heating a material decreases the energy of its particles.</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>When you stir sugar into water, the sugar and water evenly mix.</td>
<td></td>
</tr>
</tbody>
</table>

**Read to Learn**

**Physical Changes**

How would you describe water? If you think about water in a stream, you might say that it is a cool liquid. If you think about water as ice, you might describe it as a cold solid. How would you describe the change from ice to water? As ice melts, some of its properties change, such as the state of matter, the shape, and the temperature. But its identity does not change. It is still water.

In Lesson 2, you read that substances and mixtures can be solids, liquids, or gases. In addition, substances and mixtures can change from one state to another. A **physical change** is a change in size, shape, form, or state of matter in which the matter's identity stays the same. During a physical change, the matter does not become something different even though physical properties change.

**Change in Shape and Size**

Think about changes in the shapes and the sizes of materials you experience each day. When you chew food, you are breaking it into smaller pieces. This change in size helps make food easier to digest. When you pour juice from a bottle into a glass, you are changing the shape of the juice. Changes in shape and size are physical changes. The identity of the matter has not changed.
Change in State of Matter

Why does ice melt in your hand? Or, why does water turn to ice in the freezer? Matter, such as water, can change state. Recall how the particles in a solid, a liquid, and a gas behave. To change the state of matter, the movement of the particles has to change. To change the movement of particles, thermal energy must be added or removed.

Adding Thermal Energy When thermal energy is added to a solid, the particles in the solid move faster and faster, and the temperature increases. As the particles move faster, they are more likely to overcome the attractive forces that hold them tightly together. When the particles are moving too fast for attractive forces to hold them tightly together, the solid reaches its melting point. The melting point is the temperature at which a solid changes to a liquid.

After the entire solid has melted, the addition of more thermal energy causes the particles to move even faster. The temperature of the liquid increases. When the particles are moving so fast that attractive forces cannot hold them close together, the liquid reaches its boiling point. The boiling point is the temperature at which a liquid changes into a gas and the particles spread out. Some solids change directly to a gas without first becoming a liquid. This is called sublimation.

The figure below shows what happens as thermal energy is added to a material. Temperature increases when the state of matter is not changing. Temperature stays the same during a change of state.

[Diagram of Thermal Energy and the State of Matter]
Removing Thermal Energy When thermal energy is removed from a gas such as water vapor, particles in the gas move more slowly and the temperature of the gas decreases. Condensation occurs when the particles are moving slowly enough for attractive forces to pull the particles close together. Recall that condensation is the process that occurs when a gas becomes a liquid.

After the gas has completely changed to a liquid, removing more thermal energy from the liquid causes the particles to move even more slowly. As the motion between the particles slows, the temperature decreases.

Freezing occurs when the particles are moving so slowly that attractive forces between the particles hold them tightly together. Now the particles only can vibrate in place. Recall that freezing is the process that occurs when a liquid becomes a solid.

Freezing and melting are reverse processes, and they occur at the same temperature. The same is true of boiling and condensation. Another change of state is deposition. Deposition is the change from a gas directly to a solid. It is the opposite of sublimation. For example, deposition occurs when water vapor in the air forms frost.

Dissolving

Think about adding salt to water to create a saltwater aquarium. As you add the salt to the water, it gradually disappears. It is still there, but it dissolves, or mixes evenly, in the water. Because the identities of the substances—water and salt—are not changed, dissolving is a physical change.

Like many physical changes, dissolving is usually easy to reverse. If you boil the salt water, the liquid water will change to water vapor, leaving the salt behind. You once again can see the salt because the particles that make up the substances do not change identity during a physical change.
Conservation of Mass

During a physical change, the physical properties of matter change. The particles in matter that are present before a physical change are the same as those present after the physical change. Because the particles are the same before and after a physical change, the total mass before and after the change is also the same, as shown in the figure below. This is known as the conservation of mass. You will read in Lesson 4 that mass also is conserved during another type of change—a chemical change.

Key Concept Check
5. Define What is meant by conservation of mass?

Conservation of Mass

Visual Check
6. Calculate If a sample of water has a mass of 200 g and the final solution has a mass of 230 g, how much solute dissolved in the water?
Mini Glossary

**physical change:** a change in size, shape, form, or state of matter in which the matter’s identity stays the same

1. Review the terms and their definitions in the Mini Glossary. Write a sentence describing something you did today that resulted in a physical change of matter.

2. For each process listed in the diagram, identify the opposite process that occurs at the same temperature.

3. How did making an outline help you learn about the physical changes of matter? Write one main point that you highlighted and an example that helped you understand the main point.

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**What do you think NOW?**

Reread the statements at the beginning of the lesson. Fill in the After column with an A if you agree with the statement or a D if you disagree. Did you change your mind?

Log on to ConnectED.mcgraw-hill.com and access your textbook to find this lesson’s resources.
The achievements of the Roman Empire influenced the Western world for centuries and continued to affect the modern world today.

The Rule of Augustus

How did Augustus create a new age of prosperity for Rome?

The rule of Caesar Augustus (formerly called Octavian) marked the beginning of a new era. For nearly two hundred years, the Roman world enjoyed peace and prosperity. This time period lasted until about a.d. 180. It is known as the Pax Romana (PAHKS roh- MAH- nah), or "Roman Peace." During this time, Rome reached the height of its power.

What Reforms Did Augustus Make?

As emperor, Augustus was determined to protect the empire. To do this, he created a permanent professional army. About 150,000 soldiers—all Roman citizens—made up this powerful military force. In addition, Augustus created a special unit known as the Praetorian Guard. The 9,000 men in this select unit guarded the emperor.

Augustus thought that Rome's borders should be easier to defend. He established the empire's boundaries along natural physical features. These included the Rhine (RYN) River and Danube (DAN- yoh) River to the north, the Atlantic Ocean to the west, the Sahara to the south, and near the Euphrates River to the east. Troops were stationed along these frontier areas to protect the empire from invaders.

In addition to protecting the empire, Augustus wanted to display the power of Rome. Augustus had many public buildings, fountains, and palaces rebuilt to reflect the greatness of Rome. "I found Rome a city of brick," he boasted, "and left it a city of marble."

Augustus also worked to improve Rome's government. During his reign, more than 50 million people lived within the empire's borders. This is slightly fewer than the number of people living in Italy today. To maintain control over his empire, Augustus named an official called a proconsul (PROH- KAHN- suhl), or governor, to oversee each of Rome's provinces. These new local officials replaced the politicians who had been appointed by the Senate. Augustus himself often visited the provinces to inspect the work of the proconsuls.

With new leaders in place, Augustus changed the empire's tax system. Before Augustus, tax collectors paid the government for the right to collect taxes. Tax collectors could keep some of what they collected from the people. Many tax collectors, however, were dishonest and took too much from the people. To solve this problem, Augustus made tax collectors permanent government officials and paid them regular wages.

Augustus also changed Rome's legal system. He created a code of laws for people living in the provinces who were not Roman citizens. As time passed, most of these people became citizens, so eventually, the laws were applied to everyone. However, the legal system often favored the authority of the empire over individual citizens' rights.

Despite all of his reforms, Augustus feared that people might still be unhappy with his leadership. To preserve his rule and the empire, Augustus imported grain from Africa and distributed it to the poor. Augustus believed that a well-fed population would be less likely to revolt against him.

Emperors After Augustus

Augustus ruled Rome for almost 40 years. After Augustus died in a.d. 14, his adopted son, Tiberius, became emperor. After Tiberius, three other emperors from Augustus's family ruled Rome—Caligula (kuh- LIH- yuh- Iuh), Claudioius, and Nero (NEE- roh). They are known as the Julio-Claudian emperors. Tiberius and Claudioius governed the empire effectively. In contrast, Caligula and Nero proved to be cruel rulers.
Caligula murdered many people and spent money recklessly. He even appointed his favorite horse as consul. The Praetorian Guard murdered him and made Claudius emperor.

Nero was also a brutal emperor who killed many people. Among his victims were his mother and two wives. Nero committed suicide after the Senate had sentenced him to death for treason.

**Explaining** How did Augustus protect Rome's borders?

**The Roman Peace**

_How did the Roman Empire become rich and prosperous?_

After Nero died, violence erupted throughout the Roman Empire. Then, in a.d. 69, a general named Vespasian (veh•SPAY• zhee• uhn), became emperor. Vespasian restored order, but he treated harshly anyone who opposed Roman rule. Vespasian crushed several uprisings throughout the empire. One such uprising was the Jewish revolt in the eastern province of Judaea. Vespasian's son, Titus, commanded troops that defeated the Jewish rebels. Roman soldiers also destroyed the Jewish temple in Jerusalem in a.d. 70.

Vespasian began the construction of the Colosseum, the huge amphitheater located in central Rome. After Vespasian died, his sons Titus and Domitian each governed Rome. While Titus was emperor, two disasters struck the empire. In a.d. 79, the volcano Mount Vesuvius erupted, destroying the city of Pompeii. A year later, a great fire badly damaged Rome. Both sons, however, ruled during an era of relative growth and prosperity.

**Five Good Emperors**

During the early a.d. 100s, several emperors who were not related to Augustus or Vespasian ruled the empire. Nerva, Trajan, Hadrian, Antoninus Pius, and Marcus Aurelius are known as the "good emperors." The five "good emperors" did not abuse their power. They were among the most capable rulers in Rome's history.

The five emperors governed during a time of economic growth. Agriculture and trade flourished during this period, which lasted from a.d. 96 to a.d. 180. Tertullian, a Roman writer, described this time:

"All places are now accessible [easy to reach], all are well known, all open to commerce...cultivated fields have subdued [tamed] forests...marshes are drained; and where once were...solitary cottages, there are now large cities...everywhere are houses, and inhabitants, and settled government, and civilized life."

—from _Treatise on the Soul_ by Tertullian

The five emperors introduced programs to help the empire's people. For example, Trajan made money available so that poor children could receive an education. Hadrian made Roman laws easier for ordinary citizens to understand.

The five emperors also improved Roman cities. They spent tax money to build arches and monuments, bridges, roads, and harbors. They also built extensive _aqueducts_ (A• kwuh• duhks) to bring water from the country to the city.

**A United Empire**

The Emperor Trajan expanded the Roman Empire to its maximum size. The empire's borders extended to Britain in the northwest and Mesopotamia in the east.

Trajan's _successors_ believed that the empire had become too large to rule effectively. They withdrew Roman forces from regions they could not defend and reinforced areas that were easier to protect. Hadrian pulled troops from Mesopotamia but strengthened defenses at the Rhine and Danube rivers.

By the a.d. 100s, the Roman Empire was one of the largest empires in history. Its land area was about 3.5 million square miles (9.1 million square km), almost the size of the United States.
Many groups of people lived in the Roman Empire. Roman law, Roman rule, and a shared Roman identity united them all. By a.d. 212, every free person within the empire was considered a Roman citizen. All citizens were treated equally under Roman laws.

The Empire's Economy

Agriculture remained the most important economic activity in the Roman Empire. Most people were farmers. Farmers in northern Italy and in the provinces of Gaul and Spain grew grapes to make wine and olives to make olive oil. Grain from Britain, Sicily, and Egypt supplied Rome's people with food. Industry thrived in the cities. Potters, weavers, and jewelers produced pottery, cloth, and jewelry. Other artisans made glass, bronze, and brass. These goods were exported throughout the Mediterranean region.

Trade flourished. By a.d. 100, a common Roman system of money was used within the empire. Merchants used the same money in Gaul, Greece, or Egypt as they did in Rome. People also used a standard system of weights and measurements.

A network of paved roads extended throughout the empire. The roads allowed the Romans to communicate and move armies and goods easily. The Roman navy eliminated piracy on the Mediterranean Sea and other waterways. As a result, goods could be shipped safely to and from the empire's ports.

Traders from all over the empire arrived in Rome's port cities. Traders sold luxury goods to wealthy Romans. The Romans also imported raw materials, such as British tin and Spanish silver and lead. Roman workshops turned them into different goods.

Trade made many people wealthy. The wealth, however, did not extend to all Romans. Most city dwellers and farmers remained poor, and many other people remained enslaved.
Lesson 4 Rome Builds an Empire

Roman Roads

The saying “All roads lead to Rome” refers to the vast system of roads the Romans built. As the Roman Empire grew, the Romans built 50,000 miles (80,467 km) of roads that extended throughout the empire. Roman engineers were known for building straight roads with good drainage systems so the roads would not flood. They used concrete made from volcanic ash and lime (a substance taken from rocks and minerals and used for building), or other materials depending on what was available locally. The result was straight, hard surfaces, some of which still survive today.

The first road leading from Rome was the Via Appia, or Appian Way. It was begun in 312 B.C. By the 200s B.C., four other major roads led from Rome. As the Roman Empire grew, the road system was expanded until it extended into all of the Roman provinces. At the empire’s height, it was possible to travel on Roman roads from Carthage in northern Africa all the way around the Mediterranean to the city of Rome.

The road system helped Rome expand its empire. The roads also made it easier for government and military officials to travel to different provinces. Roads helped unite the empire by enabling the spread of Roman culture throughout its provinces. At the empire’s height, the system of roads also made it possible for large numbers of people to migrate, or move, to the empire. The roads built by the Romans helped the spread of people and ideas that lasted into the Middle Ages.
Directions: Answer the following questions.

Understanding the Concept
1. Identifying Fill in the web diagram to identify the ways Rome’s road system helped the empire.
2. **Locating** Study the map of the Roman Empire. Referring to your textbook, add the cities of Carthage, Alexandria, and Rome. All were major destinations on the Roman roads.

**Applying the Concept**

3. **Summarizing** How did the road system help Rome expand its empire?

4. **Evaluating** How did the Roman road system help not only the Roman empire, but also other civilizations that came later?

5. **Comparing and Contrasting** How do the Roman Empire’s reasons for building roads compare with modern reasons for building new roads?
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ESSENTIAL QUESTION
What are the characteristics of a leader?

The Rule of Augustus

**Synthesizing** As you read, complete this chart by listing the actions Augustus took to achieve each of his goals for the Roman Empire.

<table>
<thead>
<tr>
<th>Goals</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>To protect the empire</td>
<td>1.</td>
</tr>
<tr>
<td>To make Rome’s borders easier to defend</td>
<td>2.</td>
</tr>
<tr>
<td>To display the power of Rome</td>
<td>3.</td>
</tr>
<tr>
<td>To maintain control over the empire</td>
<td>4.</td>
</tr>
</tbody>
</table>
Outlining As you read, fill in the outline below with two details about each topic.

I. Unity and Prosperity
   A. 
   B. 

II. The "Good Emperors"
   A. 
   B. 

III. A Unified Empire
   A. 
   B. 

IV. A Booming Economy
   A. 
   B. 

V. Roads and Money
   A. 
   B. 

VI. Ongoing Inequality
   A. 
   B. 

The Roman Peace