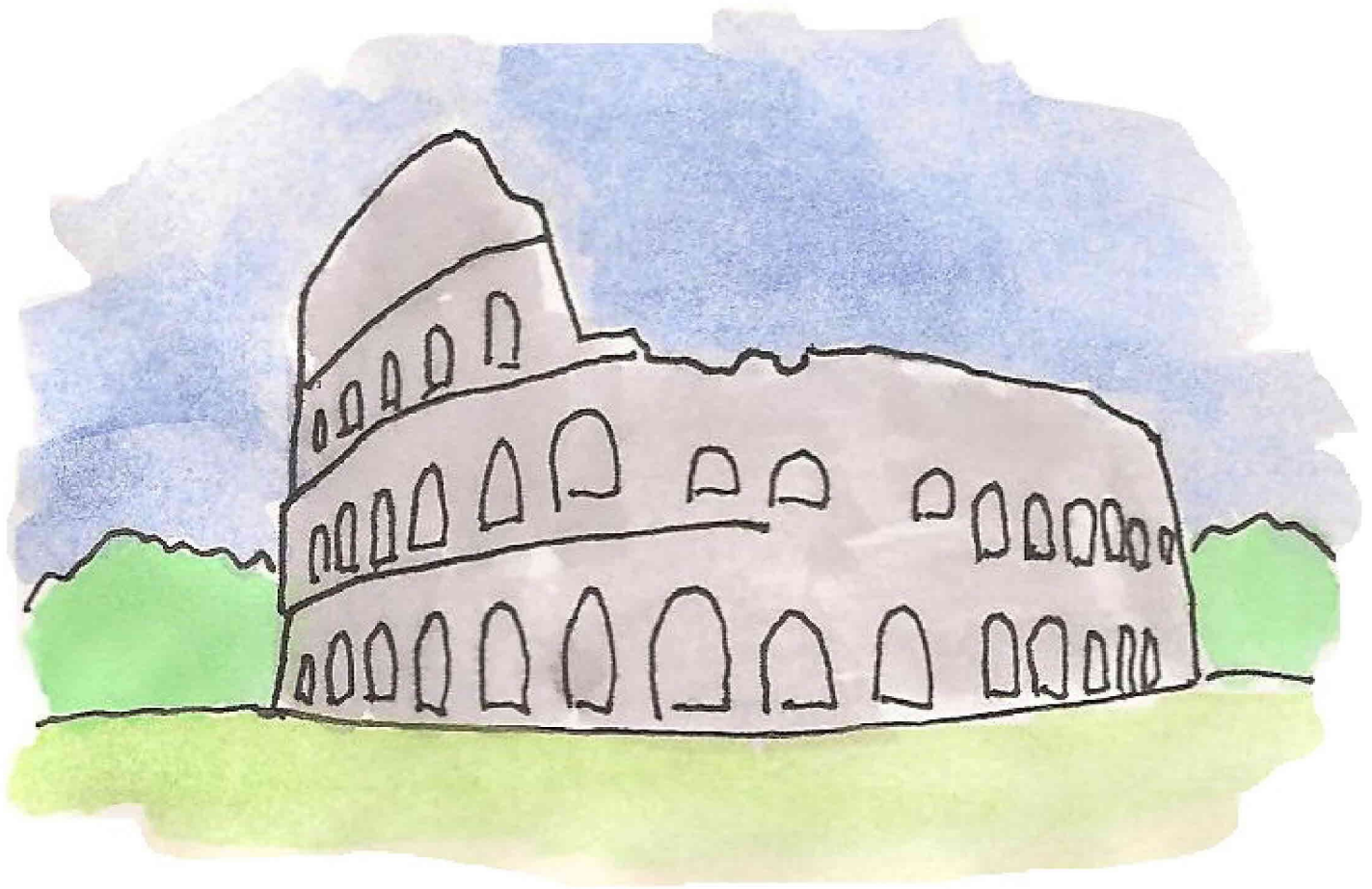


# Layers of Learning

## Year One - Unit Twenty

Includes fun, hands-on projects in  
History - Geography - Science - The Arts



**Roman Empire - You Explore - Fungi - Composing Music**

Michelle Copher & Karen Loutzenhiser



# LAYERS OF LEARNING

## YEAR ONE • UNIT TWENTY

### ROMAN EMPIRE YOU EXPLORE FUNGI COMPOSING MUSIC

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# LAYERS OF LEARNING INTRODUCTION

This is part of a series of units in the Layers of Learning homeschool curriculum, including the subjects of history, geography, science, and the arts. Children from 1<sup>st</sup> through 12<sup>th</sup> can participate in the same curriculum at the same time – family school style.

The units are intended to be used in order as the basis of a complete curriculum (once you add in a systematic math, reading, and writing program). You begin with Year 1 Unit 1 no matter what ages your children are. Spend about 2 weeks on each unit. You pick and choose the activities within the unit that appeal to you and read the books from the book list that are available to you or find others on the same topic from your library. We highly recommend that you use the timeline in every history section as the backbone. Then flesh out your learning with reading and activities that highlight the topics you think are the most important.

Alternatively, you can use the units as activity ideas to supplement another curriculum in any order you wish. You can still use them with all ages of children at the same time.

When you've finished with Year One, move on to Year Two, Year Three, and Year Four. Then begin again with Year One and work your way through the years again. Now your children will be older, reading more involved books, and writing more in depth. When you have completed the sequence for the second time, you start again on it for the third and final time. If your student began with Layers of Learning in 1<sup>st</sup> grade and stayed with it all the way through she would go through the four year rotation three times, firmly cementing the information in her mind in ever increasing depth. At each level you should expect increasing amounts of outside reading and writing. High schoolers in particular should be reading extensively, and if possible, participating in discussion groups.

😊 😊 😊 These icons will guide you in spotting activities and books that are appropriate for the age of child you are working with. But if you think an activity is too juvenile or too difficult for your kids, adjust accordingly. The icons are not there as rules, just guides.

😊 GRADES 1-4

😊 GRADES 5-8

😊 GRADES 9-12

Within each unit we share:

- EXPLORATIONS, activities relating to the topic;
- EXPERIMENTS, usually associated with science topics;
- EXPEDITIONS, field trips;
- EXPLANATIONS, teacher helps or educational philosophies.

In the sidebars we also include Additional Layers, Famous Folks, Fabulous Facts, On the Web, and other extra related topics that can take you off on tangents, exploring the world and your interests with a bit more freedom. The curriculum will always be there to pull you back on track when you're ready.

You can learn more about how to use this curriculum at [www.layers-of-learning.com/layers-of-learning-program/](http://www.layers-of-learning.com/layers-of-learning-program/)

## UNIT TWENTY

ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

*Carpe diem! Rejoice while you are alive; enjoy the day; live life to the fullest; make the most of what you have. It is later than you think.*

*-Horace, ancient Roman poet 65-8BC*

	<b>LIBRARY LIST:</b>
HISTORY	<p>Search for: Roman Empire, Caesar Augustus, fall of Rome, Constantine, ancient Rome</p> <p>☺ ☺ ☺ <u>The Discovery of New Worlds</u> by M.B. Synge. Covers history from the birth of Christ to the Age of Exploration. Written at a middle grades level, but a perfect read aloud for all your kids.</p> <p>☺ <u>See Inside Ancient Rome</u> by Katie Dayness. A lift-the-flap board book.</p> <p>☺ <u>G Is For Gladiator: An Ancient Rome Alphabet</u> by Debbie and Michael Shoulders.</p> <p>☺ <u>Growing Up In Ancient Rome</u> by Mike Corbishley and Chris Molan.</p> <p>☺ <u>Pompeii Lost and Found</u> by Mary Pope Osborne.</p> <p>☺ ☺ <u>Make This Roman Villa</u> by Iain Ashman. A paper model cut-out. Look for others.</p> <p>☺ ☺ <u>The Best Book of Ancient Rome</u> by Deborah Murrell.</p> <p>☺ ☺ <u>Rome in Spectacular Cross Section</u> by Stephen Biesty.</p> <p>☺ <u>The Legionary</u> by Peter Connolly.</p> <p>☺ <u>Ancient Rome</u> by Simon James. From DK.</p> <p>☺ <u>Ruthless Romans</u> by Terry Deary. Part of the <i>Horrible Histories</i> series</p> <p>☺ ☺ <u>Nero</u> by Jacob Abbott. A classic.</p> <p>☺ ☺ <u>The Ancient City</u> by Peter Connolly and Hazel Dodge. Covers both Athens and Rome and all the splendor of their glory with amazing illustrations.</p> <p>☺ ☺ <u>Famous Men of Ancient Rome</u> by John H. Haaren and A.B. Poland.</p> <p>☺ <u>Ancient Rome: the Rise and Fall of an Empire</u> by Simon Baker. Covers from the founding of Rome to the fall.</p> <p>☺ <u>In the Name of Rome</u> by Adrian Goldsworth. A military history of Rome.</p> <p>☺ <u>Dreams of Augustus</u> by Andrew Lantz. Covers Rome from the birth of Jesus to the rise of Islam in an entertaining style.</p> <p>☺ <u>The Twelve Caesars</u> by Suetonius. Written by the personal secretary to the Emperor Hadrian, this is a tell-all of the first twelve rulers of the Roman Empire. May contain graphic and explicit material . . . read first before handing it to your student.</p> <p>☺ <u>The Fall of Rome and the End of Civilization</u> by Bryan Ward-Perkins. Easy read and entertaining. Puts forth the idea that the violent fall of Rome, military and economic, set civilization back to prehistoric times in Europe.</p> <p>☺ <u>The Annals</u> by Tacitus. J.C. Yardley translation for the easiest read.</p> <p><i>More historical fiction books are listed in the sidebar in the Roman Empire section of this unit.</i></p>

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

GEOGRAPHY	<p>Search for: maps, geography, or any specific place or geography topic you'd like to learn more about</p> <p>☺ ☺ <u>A Child's Introduction to the World: Geography, Cultures, and People - From the Grand Canyon to the Great Wall of China</u> by Heather Alexander.</p> <p>☺ ☺ <u>The Everything Kids' Geography Book: from the Grand Canyon to the Great Barrier Reef – Explore the World!</u> (Everything Kids Series) by Jane P. Gardner and J. Elizabeth Mills.</p> <p>☺ ☺ ☺ <u>National Geographic</u> and <u>National Geographic Kids</u> Magazines. You could probably find a variety of these at your local library or thrift store if you're not a subscriber. They paint a pretty amazing picture of peoples and places all over the globe.</p> <p>☺ ☺ ☺ A variety of atlases and almanacs. We prefer the picture atlases even for older students. DK makes some nice ones.</p>
SCIENCE	<p>Search for: fungi, mushrooms</p> <p>☺ ☺ ☺ <u>Katya's Book of Mushrooms</u> by Katya Arnold. This book will turn your whole family into fungus enthusiasts.</p> <p>☺ <u>Mushroom in the Rain</u> by Mirra Ginsburg. In a rain storm more and more animals crowd under the mushroom for shelter until at the end they find out what happens to a mushroom in the rain.</p> <p>☺ <u>Good Mushrooms and Bad Toadstools</u> by Allan Fowler.</p> <p>☺ <u>The Fungus That Ate My School</u> by Arthur Dorrows. Not a science book, but a fun introduction to this topic.</p> <p>☺ ☺ <u>Mushrooms of the World with Pictures to Color</u> by Jeanette Bowers.</p> <p>☺ <u>Slime Molds and Fungi</u> by Elaine Pascoe. Information plus projects and experiments.</p> <p>☺ <u>The Book of Fungi</u> by Peter Roberts and Shelley Evans. Read the introduction and then just browse the incredible photos.</p> <p>☺ <u>Mushrooms and Other Fungi of North America</u>. An identification guide.</p> <p>☺ <u>The Triumph of the Fungi: A Rotten History</u> by Nicholas P. Money. A funny book on fungal diseases, both human and plant.</p> <p>☺ <u>Mycophilia</u> by Eugene Bone. Incredibly readable book on how humans use the world of fungi.</p>
THE ARTS	<p>Search for: composers, how to write music, music for beginners, also search for specific composers by name</p> <p>☺ ☺ <u>Children's Book of Music</u> from DK. Comes with a CD.</p> <p>☺ ☺ <u>Getting To Know the World's Greatest Composers</u>. This is a series with titles of all major composers since Bach.</p>

## HISTORY: ROMAN EMPIRE

### Fabulous Fact

When you learn about Rome, make these contrasts in your mind:

Republic vs. Empire

Rule of Law vs. Arbitrary Power

Realities vs. Illusions

Ordinary life vs. Politics

### Fabulous Fact

The Roman emperors never called themselves kings but maintained the political fiction that they ruled with the consent of the senate. In fact, the senate was retained in a purely honorary function until the very end of the Empire.

Here are some of the titles they used:

*princeps civitus* (first citizen)

*princeps senatus* (leader of the senate)

*pontifex maximus* (chief priest of state)

*imperator* (top honorific for a military officer and the word from which comes “emperor”)

*Caesar* (originally a family name belonging to Julius, it transformed into a title)

Probably everyone who has written about the fall of Rome has come up with different theories on why it happened. You'll want to read several different accounts to get a good idea of many sides of the problem. No civilization, however powerful, has lasted forever. They grow weak from the inside and then are battered by stronger forces outside. The underlying causes of any collapse or failure of humans can be found in the weaknesses of human nature, which have remained constant since the beginning.

At the time Augustus became emperor and the old republic had ceased to exist, the Romans had become complacent. Landholders were no longer required to defend the empire; instead, armies of professional mercenary soldiers expanded and controlled the empire and individual generals threatened the senate. Citizens of Rome had special privileges and abused the rights of their conquered people through exorbitant taxes and lack of legal protection. Many of the wealthy ruling class lived lives of profligate wantonness. They had wild drunken parties, were not concerned with being faithful to their families, and no longer cared for things such as integrity or honor.



*Emperor Caesar Augustus*

Augustus' seizure of power brought stability and a measure of restraint to the Roman Empire. He reformed many laws, rebuilt the city of Rome, reduced the extravagance of government, reigned in an out of control senate, created a standing army, greatly improved the Roman road system, and ushered in two centuries of peace within the empire, known as the Pax Romana. In essence, the end of the Roman Republic was the first fall of Rome. When the people would no longer govern themselves, Caesar governed them.

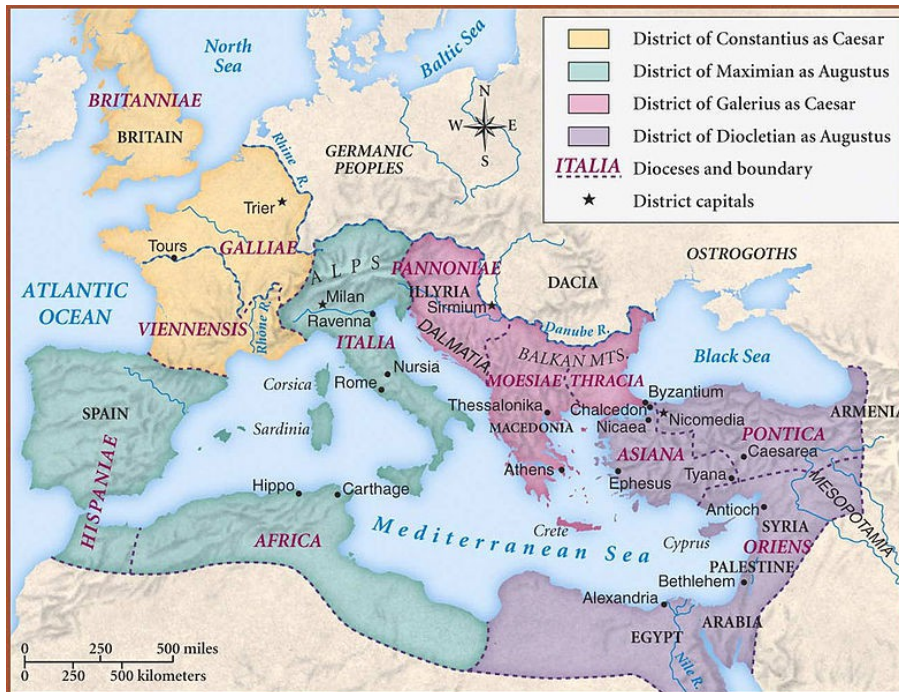
Over the next several hundred years Rome went through both good and evil rulers. By the end the entire ruling class was once more profligate, selfish, and complacent. They had



# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

overextended their influence in the world and could not control the vast territories and responsibilities they had taken on. In order to support their lavish life style, emperors taxed the people into poverty, and then to keep them happy, threw great public feasts and fairs with gladiator fights, staged sea battles in the Colosseum, gave out food on the streets, and held exotic parades of captured barbarians and wild animals from far off places. (You'll find a Colosseum coloring page in the printables section.)

The army once again began to threaten emperors of Rome when powerful generals stood at its head. The army was also, once again, made up of almost entirely mercenary forces from outside the Empire, many of whom would be trained in exchange for Roman citizenship, only to have the trained warriors desert back to their own countries and then fight using their new knowledge against their former captains.



*Diocletian split the empire into four parts, called the tetrarchy.*

In 284 AD, with barbarians attacking from nearly every side, the emperor Diocletian decided the whole unwieldy empire was too much to rule as one unit and split it into four parts, known as the tetrarchy. It was briefly re-united under Constantine, a military general who took the empire by force. Constantine moved the capital to Byzantium, which he renamed Constantinople. Barbarian waves kept pummeling the empire though, and it split again, into two halves this time. The western half collapsed for the last time in 476 AD. The eastern half continued on for another 1000 years.

## Explanation

Most books about Rome will be primarily positive. They'll give you facts and then spin Rome to sound like shangri-la. But it's your job to do the thinking. Don't let someone else tell you how to feel about Rome or how to analyze their government style.

## Famous Folks

Tiberius I, Emperor of all Rome and the first successor to Augustus Caesar, has baffled historians. His first act on coming into the office of Emperor was to try to return the powers to the senate, or in other words, to the people. Tiberius attempted to restore the Republic by simply offering it back. The senate was confused and finally insisted Tiberius accept his duties. Tiberius called the senate "men fit to be slaves." Even though he finally accepted the kingship, he still refused to be called by the titles of the king and hardly ever gave a direct order.

Historians simply cannot believe Tiberius was sincere and speculate he was putting on an act of some kind. What do you think of Tiberius? What do you think of the senate?

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## Teaching Tip

When kids are young, teach them facts about the cultures and people you come across. Do crafts and make costumes and feel free to sanitize the subject. But as kids are entering high school you need to transition them into thinking about cultures more critically. They can handle some of the gruesome truths of the past . . . in fact, they must handle the gruesome truths or they will live through them in the future.

## Fabulous Fact

The most popular “shows” in the Colosseum were the ones where members of a family were forced to kill one another.

Political rebels were the people slated for execution (entertainment) and this included the Christians in many cases, who were not hated by Roman emperors because they worshiped a different god, but because they put their God above Caesar. Putting God and his Law first is still looked down upon by the power hungry.

## 🌟🌟🌟 EXPLORATION: Roman Empire Timeline

Make a timeline of the Roman Empire. Printable timeline squares can be found at the end of this unit.

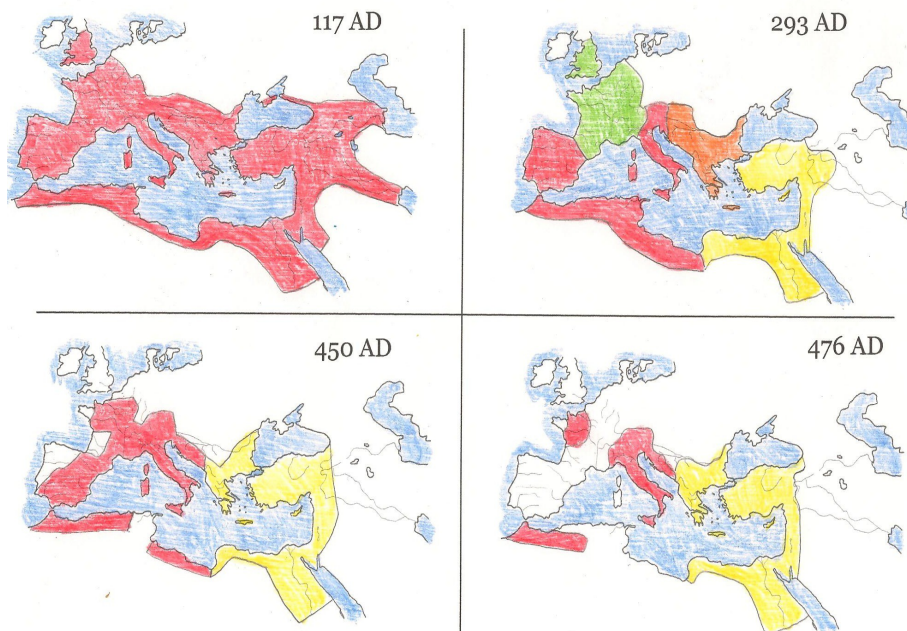
- 31 BC Octavian, later named Augustus, is made emperor of Rome
- 14 AD Tiberias is emperor; tries to restore the republic, but is rejected by the senate
- 25 AD Agrippa builds the Pantheon
- 37 AD Caligula become emperor, but he is insane and is assassinated
- 43 AD Romans invade Britain and found Londinium a few years later.
- 54 AD Nero is emperor; in a few years he will set fire to Rome and blame the Christians
- 70 AD Tito becomes emperor and brutally destroys Jerusalem and other Jewish towns; the Jews are scattered across Europe and Asia
- 72-80 AD Colosseum is built in Rome
- 79 AD Mt. Vesuvius erupts, burying Pompeii and Heraculaneum
- 97 AD Rome forbids human sacrifice throughout the empire
- 98 AD Trajan becomes emperor; Roman Empire reaches its greatest extent
- 117 AD Hadrian becomes emperor; he builds his famous wall in 122 AD
- 136 AD Jewish revolt is put down and Jews are forbidden to return to Jerusalem
- 167 AD First barbarian attack on Roman Empire
- 193 AD General Septimus Severus seizes power and turns empire into a military dictatorship
- 211-284 AD Praetorian Guard assassinates one emperor after another; civil wars erupt and last until 285 AD
- 250 AD Empire wide persecution of Christians ordered by Emperor Decius
- 253 AD Thirty “tyrants” declare themselves kings over land belonging to the empire
- 285 AD Diocletian reunites the rebellious kingdoms to the Roman Empire; he then splits the empire into four parts
- 312 AD Constantine becomes emperor of the west, after abandoning his post in Britain and emptying Britain and France of troops, leaving the way open for the barbarians
- 313 AD Constantine ends Christian persecution
- 324 AD Constantine re-unites the empire
- 370 AD Huns arrive in Europe from Asia and push other barbarian tribes into Rome's territory

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

- 395 AD Rome splits in two again
- 410 AD City of Rome sacked by Visigoths
- 455 AD City of Rome sacked by Vandals
- 476 AD Ostrogoth chief, Odoacer names himself king of Italy and western Empire ends

## ☺ ☹ ☹ **EXPLORATION: Decline of the Roman Empire**

Use the Decline of the Roman Empire Map from the end of this unit. The map is divided into four panels to show snapshots of the Roman Empire at four important times in its history.



The first panel is of 117 AD. This is the largest extent the empire ever reached and it happened under Trajan.

The second panel shows 293 BC showing that the empire as a whole has shrunk because of continual Barbarian raids. The raids and the difficulty of defending the borders prompted Diocletian to divide the empire into four parts.

The third panel of 450 AD shows a much shrunken empire, which had been reunited briefly under Constantine into one and then divided again into an eastern and western half.

The fourth panel shows the empire on the eve of destruction in the west where it has shrunk to not much more than the Italian peninsula, a bit of land in Brittany, and a slice of the north African coast. The eastern Empire is looking much better and, in fact, won't fall for another thousand years.

### **Additional Layer**

Most books and movies will portray the period of the Roman Empire (as opposed to the republic) as the glory days of Rome. We disagree. This entire period, beginning with the corruption of the republic which led to Julius Caesar seizing power, is a period of decline. The Romans stopped following the time-tested principles that lead to prosperity.

### **On the Web**

Print out this Roman villa model of a real Roman estate from Britain and put it together.

[http://www.armadamodels.co.uk/for\\_schools/roman\\_villa/roman\\_villa.htm](http://www.armadamodels.co.uk/for_schools/roman_villa/roman_villa.htm)

### **Additional Layer**

In modern times the term "Praetorian Guard" is used negatively to mean a special secret service force loyal to the heads of state and the status quo, as opposed to loyal to the people. Napoleon, Mussolini, Hitler and Khomeini were all said to have a Praetorian Guard. The term usually indicates a military dictatorship.



# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## On the Web

See an animated map of the size of the Roman Empire year by year from the city-state to 476 AD.

<http://youtu.be/osaCRLsRvko>

All of Roman history in seven minutes.

## Additional Layer

Shakespeare wrote a play called *Antony and Cleopatra*. Read it or watch it.

## Additional Layer

A mural crown was given to the first Roman soldier to scale an enemy's walls. The crown looked like city walls. You can make one yourself.



Later some kings in Europe would adopt the mural crown style for themselves.

## 🌟 🌟 EXPLORATION: Praetorian Guard

One of the things Augustus did was to form the Praetorian Guard, an elite military unit whose job it was to guard the emperor. They were loyal only to the emperor and so were a safeguard against scheming generals. On the other hand, they were very close to the emperor and played king makers again and again, assassinating the emperors who were unfit or unpopular and putting in who they preferred. They even auctioned off the office of emperor to the highest bidder.



*Proclaiming Claudius Emperor by Lawrence Alma-Tadema (1867)*

Dress like a Praetorian. Make a breastplate and backplate from cardboard in the shape of the Romans. Use cloth straps to fasten the front to the back with staples. Spray paint it all in metallic bronze. Next, make the "skirt" from long, stake shaped pieces of cardboard also painted with metallic paint. Roman soldiers carried a shield called a scutum. It was roughly rectangular. Make one from cardboard and paint it out. Wear a red shirt under the armor. Romans wore red so their enemies could never see them bleeding. (See picture in the SPQR Exploration.)

## 🌟 🌟 EXPLORATION: Antony and Cleopatra

When Julius Caesar was killed there was no mechanism in place to secure a peaceful succession. Caesar had been ruling as sole power of Rome, having overthrown, but not disbanded, the senate. Caesar named Augustus as his adoptive son and heir in his will, but it was up to Augustus to make it all happen. The only person to present a significant threat to Augustus' power was



# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

Mark Antony, a consul who was on the spot when Caesar was killed and who had worked fast to consolidate his political power. The senate tended to support Augustus because he was younger and they thought more likely to be controllable, and because he was the heir and bore the name of the wildly popular Julius.



*Cleopatra on the terraces of Philae by Frederick Arthur Bridgeman (1896)*

Meanwhile, Antony had to flee Rome and he fled directly into the arms of the ruler of Egypt, a Greek named Cleopatra, who had incidentally also been a lover to Julius. She was very unpopular with the Roman people. After an uneasy alliance which ended when Antony declared the son of Julius and Cleopatra to be the legitimate heir of Julius Caesar, Augustus brought battle to Antony, eventually chasing him across the Mediterranean. Antony and Cleopatra committed suicide rather than be captured. Augustus cleaned up by having all other potential heirs to the Roman throne killed.

Make Antony and Cleopatra paper dolls using the template from the end of this unit. Print the figures onto card stock and color them. You can make more clothes for the figures by laying another sheet of paper over them and tracing the outlines while designing an outfit for each of them.

## 😊 😊 😊 **EXPLORATION: Virtual Aqueduct**

Build a virtual Roman aqueduct at this site from NOVA:  
<http://www.pbs.org/wgbh/nova/lostempires/roman/aqueduct.html>

You may enjoy some of the other activities on this site as well.

## **On The Web**

Visit this site:  
<http://www.roman-empire.net/>

for tons of information, videos, illustrated timelines, maps and crafts.

## **Writer's Workshop**

Choose one of these concepts from *Antony and Cleopatra* by Shakespeare and write your take on it:

- The future is predetermined
- Once a cheater, always a cheater
- Honor and reputation are everything
- Women are not trophies

## **Additional Layer**

Modern people often lament that even though we see the failures of socialism, fascism, and communism, people are still drawn to them. Rome showed us the contrast between the rule of law (freedom) and a totalitarian arbitrary state a couple thousand years ago, and yet we still haven't learned that lesson.

It goes back to that quote "Those who fail to study history are doomed to repeat it."

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## Memorization Station

Emperors of Rome:

Augustus Caesar

Tiberius I

Caligula

Claudius I

Nero

Year of the Four Emperors

Vespasian

Titus

Domitian

Nerva

Trajan

Hadrian

Antonius Pius

Marcus Aurelius & Lucius Verus (jointly)

Commodus

Year of the Five Emperors

Septimus Severus

Crisis of the Third Century (Emperors murdered one after the other)

Tetrarchy

Constantine I

3 sons of Constantine

Valentinian I & Valens

Valentinian II

Theodosius I

Arcadius (west)

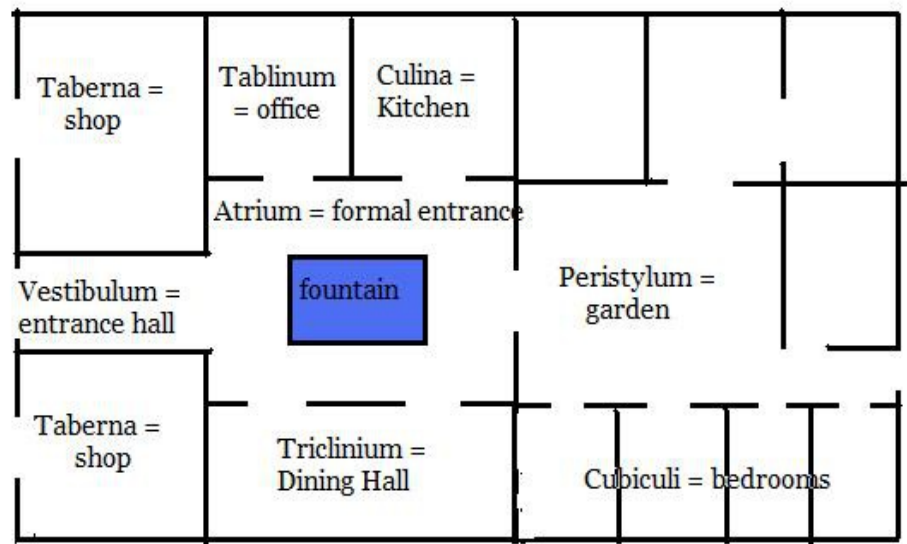
Honorius (east)

Then the empire is split into east and west for good.

## EXPLORATION: At Home in Rome

Design your own Roman home. If you were rich you would live in a fancy home with lots of rooms, an open atrium in the center, garden surrounding you, and lots of slaves. If you were poor you would live in a room or two or maybe three in a crowded apartment in the city. Not much has changed.

Here's one idea of how to design your house. This one is a middle class home. Make up your own and add fountains, gardens, stables and so on.



## EXPLORATION: A Roman Dinner Party

Wealthy Romans enjoyed a good dinner party. They often didn't eat much during the day, so their dinners tended to be large. As guests arrived at a dinner party they would remove their sandals and a slave would wash their feet. Before eating everyone not only washed their hands, but also got to spritz them with some nice, scented perfume. Instead of eating on chairs at a table, they lounged on couches with a table between them to set the food on. They often ate many courses of things like breads, fruits and vegetables, and roasted meats. Hold your own Roman feast.

Here's a menu:

olives

deviled eggs

lentil soup

Focaccia bread (a cheese pizza with no sauce and olives pressed in)

Green salad with radishes

Roast chicken or beef

Walnuts, apples, or melon for dessert



# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## 🌞 🌱 EXPLORATION: SPQR

The initials SPQR stand for the Latin phrase “**S**enātus **P**opulusque **R**ōmānus” which means “The Senate and the People of Rome.” It was a phrase often used on standards, on documents, and in speeches since probably the founding of the Republic and implied that the government was of the people; it was a republic. The phrase continued to be used during the years of the empire to increase the illusion that the people and the senate still ruled according to their own will. A republic is not a republic if it is in name only.



Make a legionnaire's standard with the SPQR on it. Use two poles, the shorter one lashed crosswise to the larger. Cut a rectangle of cloth to fit on your pole and decorate it with the SPQR and a laurel wreath. You may also want to add a Roman eagle to the top of your standard. You'll find a printable eagle at

## Additional Layer

The Roman eagle, Aquila, was a representation of a golden eagle in flight. It was used as the standard for special legions of Rome. The loss of the eagle standard in battle was extremely serious. They would spend all kinds of time and effort on the recovery of a standard if lost.

The eagle is also used as a symbol of the United States. Do you think there's a connection?

Consider that Hitler also used an eagle with outspread wings as a symbol. And so has Russia. Keep an eye out for Roman symbols in political life all over the globe. Think about why nations would want to copy Rome. What about Rome do they wish to emulate?

## Additional Layer



SPQR has been revived in modern times and graces the manhole covers of Rome. Find out why.

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## Additional Layer

By the end Rome was so corrupt and the people so dependent that the economy collapsed. The social structure completely broke down so utterly that a society on the cusp of an industrial revolution became a chaos of tiny tribes and kingdoms, each striving to conquer their neighbors. (They had glass windows, five story apartment buildings, paved roads, highly developed art, factories where pottery, metal tools and other items were made, highly functional agriculture that could support huge cities, water powered mills which used complex pulleys, gears and wheels, highly developed scholarship and writings, public sanitation, plastered walls and tiled floors, and a literate society; in short everything the Netherlands and England had just before their industrial revolution.) The people were thrown back to the stone age technologically and almost no one was literate. We now call this the dark age.

Why? Because they stopped modeling their government after natural law.

the end of this unit that you can use as a template to make one from cardboard.

We colored our eagle yellow and then glued it to a piece of food package cardboard and cut it all out. The flag is made of a piece of red fabric with the laurel wreath and S.P.Q.R. written in the middle with a silver metallic fabric paint.

Garrett's Roman soldier outfit is made from pieces of cardboard painted in metallic spray paint and stapled onto fabric strips that make a belt (tied at the back) and shoulder pieces. He wore all red clothes underneath to finish off the Roman look.

## 😊 😊 😊 EXPLANATION: Pax Romana

The Pax Romana is a period of political stability that kept the whole Mediterranean area and most of Europe war free from about 26 BC until 180 AD, a span of 207 years. Leaders ever since Rome have coveted and tried to recreate the Pax Romana, and you must be on the watch for these dangerous people. But what, you ask, could be bad about peace for over two hundred years?

The period just before the Pax Romana was one of conquest, and it was mostly this expensive conquest and the resultant taxes and disruption of personal and economic life created by constant wars that destroyed the republic. Following the destruction of the republic, Rome still gained territory through conquest, but much more of their energy was spent on keeping the already conquered lands subdued. How does one keep all those unified-in-name, but divided-by-tribe-culture-religion-and-desire people at peace? What does the word “subdue” mean? Remember the symbol of the fasces, the bundled sticks, we saw in Unit 1-18? That is a symbol for unity, but it also carried an ax. What is the ax for, except to enforce the unity? So the Pax Romana was achieved by destroying the political will of the people and replacing it with the arbitrary and changeful laws of an absolute ruler who enforced it all by brutal means (this has sometimes been called statism or totalitarianism, or one of its many cousins such as communism, fascism, and socialism).





# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

So the Pax Romana represents a large united empire, united through force and led by an arbitrary leader. People who believe in this system of government will do anything to be the group that comes out on top because everyone else must submit to the arbitrary will of these people. Keep an eye out for people who want “unity,” “consensus,” and who defend their “interests” without defining what those interests are, across the globe. Their rhetoric usually sounds pretty nice, who doesn't want unity and peace?

But as Jesus Christ so succinctly put it, “Peace I leave with you, my peace I give unto you: not as the world giveth, give I unto you.” Remember, Jesus lived in the Roman Empire during the Pax Romana. Jerusalem, rebellious Jerusalem, was leveled to the ground and its inhabitants utterly destroyed, first through famine and then through the sword in 70 AD. This is the peace of the world, peace through the sword.

As for unity, what they really mean is we'll all agree as long as you do it my way. If you don't like it my way, I'll either get rid of you or force you to do it my way .

People have tried to revive the Roman Empire time and time again through history. There was Charlemagne, the Holy Roman Empire, Russia, Napoleon, Mussolini, Second Reich of the Weimer Republic, Hitler (third Reich, means third empire and refers directly to Rome), and many others, some subtle and some not so much. None of them was ever peaceful, but all of them promised greatness.

Okay, sermon over. But I do hope you take some time to consider and discuss these ideas as a family.

*Michelle*

## 🌞 🌱 🌿 EXPLORATION: Hadrian's Wall

During Emperor Hadrian's reign a wall was built across a narrow portion of northern Roman Britain. Historians speculate that the wall was built for military protection from the savage northern tribes, but also as a way to control immigration and trade flow. If you want to tax people you have to have a convenient and controlled point of entry. People did travel beyond the wall all the time and there were several gates set up just for that purpose. In fact, part of the Roman controlled areas actually extended north of the wall. The wall was also built because Hadrian was

### Additional Layer



*Roman poet Ovid with a laurel wreath on his head.*

The laurel wreath originated with Greece, but was adopted by Rome and meant victory or accomplishment. Today we still use the laurel wreath with this meaning in mind when we say “resting on one's laurels” or the terms “baccalaureate” and “poet laureate.”

### Additional Layer



This section of Hadrian's Wall was filmed in the movie *Robin Hood* starring Morgan Freeman and Kevin Costner. The wall in actuality is hundreds of miles from the city of Nottingham and Sherwood forest.

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## Famous Folks

Attila the Hun was known as the scourge of God by later peoples. The Romans who he so determinedly attacked were probably sure he came from the other end of the spiritual spectrum.



*Attila the Hun from a painting by Eugene Delacroix (c. 1843)*

He repeatedly attacked both the western and eastern ends of the Roman Empire between 434 and 453 AD, nearly taking Constantinople and Rome at different times. Rome actually paid tribute to Attila.

## Additional Layer

After Hadrian, another wall was built north of Hadrian's. It is called the Antonine Wall, but not much of it is left today so nobody talks about it.

not as interested in expanding the empire as he was in consolidating his control of it. Large sections of the wall can still be seen in northern Britain, and it's a popular tourist destination.



Parts of the wall are built of quarried and squared stone and other parts of built of sod, depending on available building materials in the area. Forts were built along the wall and also 5 to 10 miles north of the wall. Another series of forts was built south of the wall and served as supply depots. Roman forts were generally small and often formed of earth and stockades like the much later American forts on the western frontier. Many were formed of stone, though not anywhere as massive as later medieval castles.

The soldiers themselves built the wall and the forts and ditches along it. And the whole system of forts created an economy of its own in the region as local people benefited from supplying the forts and the troops with goods. You can draw a map of Hadrian's Wall and write a report about why it was built and what it looked like.

Learn more about it by visiting this site:

<http://www.aboutscotland.com/hadrian/>

## 🌞 🌱 🌿 EXPLORATION: In A Fix

This little rhyme can help you remember that all important date that Rome fell. Look up the story of Romulus Augustus. He was illegally instated as emperor by his father when he was only a child and only held part of the Italian Peninsula. Interesting that he bore the names of Romulus, the founder and first king of Rome, and Augustus, the first emperor. When Odoacer took power, the child emperor gave up the throne and was sent away.

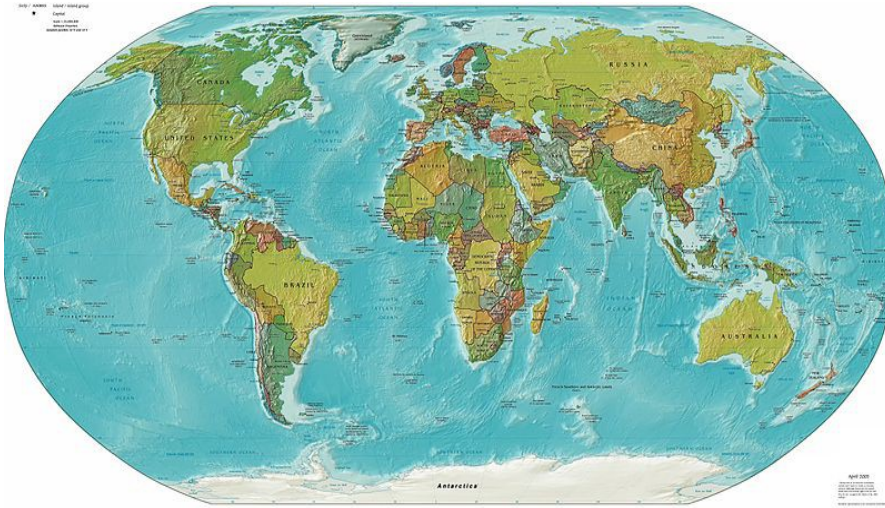
Memorize this poem and the year of the fall of Rome:

*In 476, Rome was in a fix.  
Little Romulus bid farewell  
And mighty Rome fell.*



## GEOGRAPHY: YOU EXPLORE

In this section we're going to give you several projects to pick from and you choose a part of the world to center the projects on. In this way you get to explore the people, places, and cultures that most interest you. Plus you'll get to practice the skills you've learned all year on some fun projects.



### 😊 😊 😊 **EXPLORATION: Map of My Book**

Draw a map of a place in a book you've read. It could be a real place or an imaginary world. I've always loved books that have maps in the first few pages. Draw the map as you read the book and fill in details as you go. You could have a friend read the same book and draw a map as well and see how your maps are the same or different.

Here are some books that work well with this project:

*Thomas the Tank Engine* by Reverend W. Audrey  
*The Boxcar Children* by Gertrude Warner  
*Bartleby of the Mighty Mississippi* by Phyllis Shalant  
*The Ranger's Apprentice* by John Flanagan  
*The Mysterious Benedict Society* by Trenton L. Stewart  
*Anne of Green Gables* by Lucy Maud Montgomery  
*Alex Rider* by Anthony Horowitz  
*Pride and Prejudice* by Jane Austen

### 😊 😊 😊 **EXPLORATION: Draw a Map**

Draw a map freehand. First try it looking at a map of the place you're trying to draw. Practice it a few times and then try it

### **Writer's Workshop**

One of the neatest ways to learn about other people, places, and cultures around the world is to have a pen pal.

Ask around to see if anyone you know has any acquaintances who live in another country who would be interested in being a pen pal. If not, search for a pen pal service online.

Many pen pals write letters, but there are also e-mailing pen pals in many parts of the world.



### **Additional Layer**

Make a book describing some of the major world religions. Use one page for each religion, illustrate it, and write facts you learn.

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## Teaching Tip

When working on geography include maps, landforms, landmarks, food, religion, art, music, facts and figures, government types, languages, clothing, manners, and economy.

## Writer's Workshop

Research the history of cartography and write down what you learned in your Writer's Notebook.

## Additional Layer



Review the countries and continents all over the globe that you've been memorizing. Hold a geography bee. Give a country and name the capital or vice versa. Have a race to see who can find it on the globe.

## Additional Layer

Choose about ten countries around the world, find music from the culture, and put all your songs together on a CD or in a play list. Make sure you record what the song is and where it is from.

without even looking. You could do a particular country, a continent, or the whole earth.



This exercise helps you master the shapes of places and puts a map of the earth in your head so when you hear a place mentioned in the news or in a book you'll know exactly where it's at. For example, I love British literature. My favorite author is Jane Austen. In her novels her characters go to Derbyshire, Kent, Bath, London, and many other places. A handy map of England in my head would be most helpful.

## 🌟 🌟 🌟 EXPLORATION: Make a Treasure Hunt

Prepare a large scale treasure hunt in your area. Use map clues to help your players find the next location. It could be in and around your house, in a nearby park, in your neighborhood, or all over your city. You can use map coordinates, cardinal directions or GPS coordinates as clues.

## 🌟 🌟 🌟 EXPLORATION: Latitude Chase

Prepare a list of places and their latitude and longitude. Hold a competition to see who can find the place first, given just the latitude and longitude. Let them use a map, globe, or atlas. Make sure every place you list is shown on whatever map the kids will be using.

## 🌟 EXPLORATION: Puzzle Map

Make a puzzle map for a preschooler. You can glue a pre-made map to some cardboard and cut out shapes or draw it yourself.



# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

You might also consider a craft stick mini-map puzzle like this:



## 😊 😊 😊 **EXPLORATION: Story Cloth**

There are some cultures in Southeast Asia that create story cloths which tell stories from their heritage that are then passed on down through their families. Make a story cloth from fabric (felt is nice because it needs no hemming). If you're not skilled at sewing, you can use fusible webbing and an iron or just use hot glue. Tell about a world culture or about your own family history. You could tell a story about an ancestor, about the day you were born, or about your favorite family vacation.



*Goha Story Cloth from The Children's Museum of Indianapolis*

## **Additional Layer**

An easy geography game you can take anywhere:

The first player names a place like "Africa." The second player must name a place that begins with the last letter of the last named place, like "Amazon River." The play continues until one player is stumped. You can let kids use a map . . . or not.

## **On the Web**

Try one of these sites for fun geography games to help you learn countries and capitals of the world, plus flags, rivers, landmarks, national anthems, and more.

<http://www.sheppardsoftware.com/Geography.htm>

<http://www.coolmath-games.com/1-geography-games-01.html>

<http://kids.nationalgeographic.com/kids/games/geographygames/>

<http://www.kidsgeo.com/geography-games/>

## **Writer's Workshop**

Write down the story that your story cloth depicts in your Writer's Notebook.

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## Famous Folks

Matteo Ricci was an Italian Jesuit priest who went to China as a missionary. He was also a cartographer and drew the first world map with China at the center rather than Europe.



## On the Web

At Layers of Learning online you can find a printable continent research form to help kids write a formal report about any of the seven continents.

<http://www.layers-of-learning.com/continent-research-form/>

## Additional Layer

Choose a city or national park, find out how far away it is. Keep track of walking or running mileage and exercise your way there. When you meet your goal, really go there if possible.

## 🌞 🌿 🌈 EXPLORATION: Antique Map

Draw a map of a real place on Earth using black ink pens. Look at old antique maps for ideas on what details to add like sea monsters or a fancy compass rose. When you are finished, crinkle up your map and smooth it back out several times to make it look old. Rub a used tea bag over the map to stain it. Dry it in your oven on low heat, about 200 degrees F for a few minutes. Burn or tear the edges of the map if you'd like.

Now make a map case. Start with a paper towel tube or a wrapping paper tube if you used large paper. Cover the tube with fabric to make it look pretty. Roll your map up and slip it inside the tube for safe keeping.



## 🌞 🌿 🌈 EXPLORATION: Map Shade

Get an old map and a fabric window shade. Unroll the fabric window shade onto a large surface. Paint the window shade any color you like. Let it dry, then paint the other side of the window shade. Once that is dry, center the map on the window shade on the side that will face into your room. If you need to, you can cut the map down to fit the shade. Trace around the map, then take it off the shade. Spread decoupage glue evenly over the area where your map will be. Glue the map down onto the window shade and smooth it flat. Let it dry, then seal it with a thin coat of varnish. Maps can also be decoupage and varnished as a tabletop.

## 🌞 🌿 🌈 EXPLORATION: Finger Puppets

Make finger puppet animals, one for each continent. Start with an old glove, one that's missing its mate or is worn out. Cut off



# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

the fingers. Decorate each finger to look like a different animal. Use fabric bits, pens, googly eyes, yarn, paint, and so on. Choose animals that represent each continent.

## 😊 😊 **EXPLORATION: Trip Planner**

Have your middle schooler or high schooler plan a family trip that you will actually take. It could be a day trip or a longer vacation. They'll have to plan the route, where to stop, what to do when you get there, how to budget for it, and what to feed people. If there will be younger kids involved, they should also plan for how to keep the little ones entertained in the car or on the plane.



*When we vacationed on the Washington Coast each of my kids were assigned a day to plan activities, choose meals, and be the leader for the day.*

## 😊 😊 😊 **EXPLORATION: Highlight Map**

Choose from some of the land features, landmarks, cities, or other interesting places you've learned about over the year and create a highlight map of them. Begin with a world map and make small information boxes for each of your chosen locations. Include neat facts about each place. Glue the information boxes around the perimeter of the map, then draw lines from each of the information boxes to the actual locations on the world map.

## 😊 😊 **EXPLORATION: Create a Zoo Map**

Look at some maps of real zoos to get some ideas, then create your own map of a zoo.

Remember to include entrances and exits, bathrooms, food stands, benches, picnic areas, maintenance equipment areas and gift stands, as well as the animal exhibits.

## **Teaching Tip**

While riding in the car give kids a map of the area – your county, city, or state – so they can follow your progress and practice map reading. And when they ask “how much longer?” tell them to figure it out based on the distance left and the speed of the car. That should keep 'em quiet for at least a few minutes.

## **Game**

When we were kids every time we went on a family vacation we played the license plate game, looking for plates from all 50 states and the provinces. We did even see Hawaii once . . . that was a long drive!

## **On The Web**

Check out this site to see an excellent map of the San Diego Zoo:

[http://www.sandiegozoo.org/zoo/zoo\\_map](http://www.sandiegozoo.org/zoo/zoo_map)



## SCIENCE: FUNGI

### Fabulous Fact

Mushrooms are good for you . . . unless they kill you of course. Some mushrooms are highly poisonous and kids should be warned against eating mushrooms they find in the wild because a kid who turns his nose up at a butter sauteed mushroom on his dinner plate will pop a random fungus he finds in the lawn straight into his mouth.

### Fabulous Fact

Scientists speculate that there may be as many as 2 million species of fungi. Fungi include mushrooms, mold, yeast, slime mold, and rusts.

### Warning!

The deadliest mushroom on Earth is the death cap, which grows extensively through Europe . . .



Not because it is the most poisonous, but because it resembles several edible varieties.

Fungi are not plants, but we're grouping them with plants here anyway so we can compare the two. Plants have chlorophyll and produce their own food using sunlight energy. Fungi have no chlorophyll and they eat dead plants and other decaying organic matter. Fungi can be enormous, covering acres underground. Usually they're not quite so big though.



Here's how they grow: a spore lands in a suitable spot and begins to send out tiny hairlike filaments called mycelium. The mycelium spread through the dead log or humus on the forest floor or under your lawn, wherever conditions are good. When the fungus is ready to reproduce it puts mushrooms up from the underground mycelium and the mushrooms produce new spores.



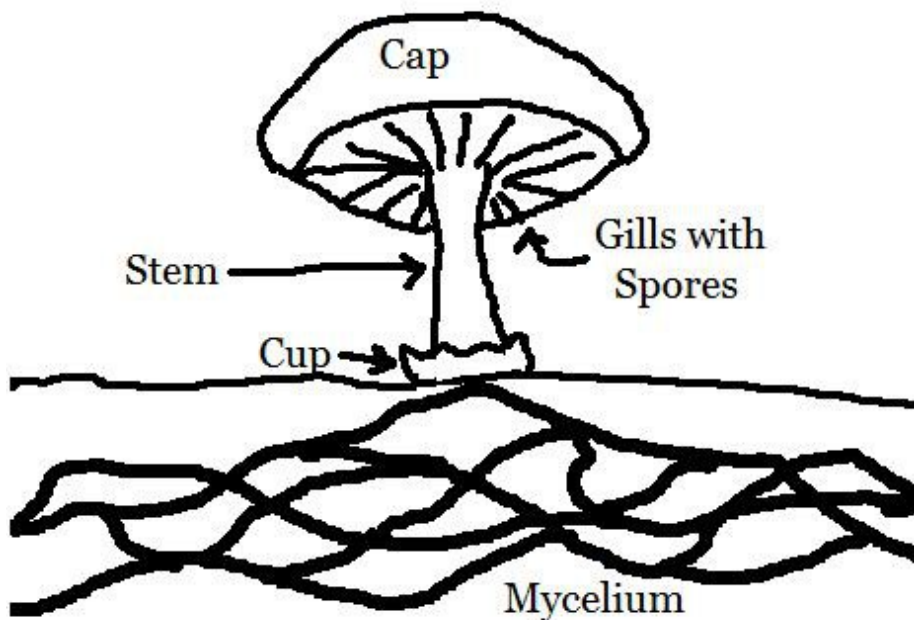
*Shelf Fungus from North Idaho*

### 🌞 🌱 🌿 EXPLORATION: Fungi Anatomy

Using the following picture as a guide, draw your own fungi anatomy.



# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC



Not all mushrooms have this shape. Look up other mushroom shapes in a library book or online.

## 🌞 🌱 🌿 **EXPERIMENT: Spore Prints**

To make your own spore prints you need a mushroom with gills, those thin filaments under the cap of a mushroom. You can find a mushroom in the wild or buy one from the supermarket.

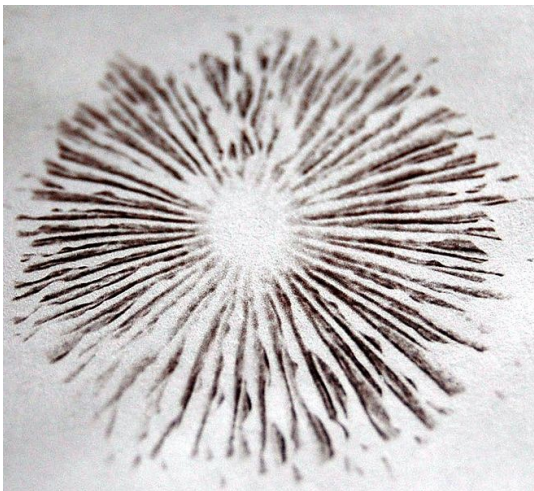


Photo by Alan Rockefeller and shared under CC license.

Cut off the stem of the mushroom and place the cap, gill side down, on a piece of white paper. Leave it overnight.

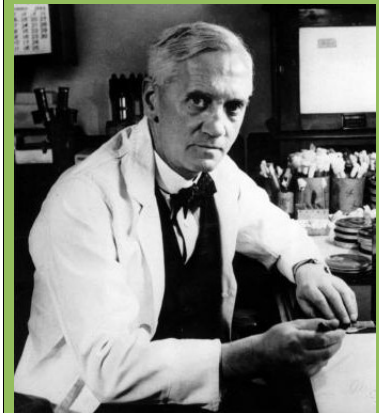
When you come back to look at it you will see thousands of tiny spores have made a pattern to match the gills on your mushroom. Remember, spores are the reproductive apparatus for mushrooms, like seeds are for flowering plants.

If you want your spore print to be permanent, for placing in your science notebook perhaps, you can spray it with artists' fixing spray or hairspray.

## **Additional Layer**

People cut shelf fungi off trees and paint on it like a canvas. If you have shelf fungi growing in your yard you can try it. Shelf fungi for this type of art are also sold.

## **Famous Folks**



Alexander Fleming saved millions upon millions of lives when he observed that the *Penicillium* mold which had inadvertently infected his petri dishes inhibited the growth of bacteria.

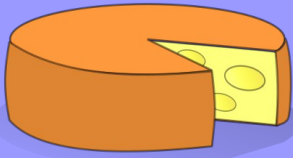
## **Fabulous Fact**



Spore prints are like finger prints. Every type of mushroom produces a unique pattern.

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## Additional Layer



Not all mold is bad. It's used in cheese, medicine, and more. Find out how you use mold.

## Additional Layer

Siberian shamans used to eat the fly agaric mushroom in order to induce hallucinogenic dreams and visions for religious purposes. Then the common people would drink the urine of the shaman which still contained all the hallucinogenic properties of the mushrooms.



Photo by JJ Harrison, CC license.

## Famous Folks

Sister Noella Marcellino is a Benedictine nun and the world's leading expert on cheese molds. She has a doctorate in microbiology from the University of Connecticut and studies cheese molds in France.

## EXPLORATION: Spores Close-Up

Study a spore under a microscope. Place some spores and a drop of water on a microscope slide and cover with a cover slip.

If you find mushrooms in the wild you can dig underground, find some mycelium, and study that under the microscope too.

## EXPEDITION: Fungi Hunters

Fungi hunting groups exist all over the country. See if there's one near your town. See if you can go with them on their next fungi hunting expedition. If someone would be willing to go slowly and explain things as your guide this would be ideal.



## EXPERIMENT: Mold, Mold, Mold

Grow mold. Mold is another type of fungus. It does not grow mushrooms, but it does produce spores. It's very easy to grow. It's possibly growing in your fridge right now. Go check. If it is, clean out the fridge!

To grow it on purpose, you need a slice of bread and zipper sandwich bag. Put your bread in the bag and set it in a warm place like your cupboard. Come back a few days later and see what's growing.

You can look at the spores with a magnifying lens to see what the mold looks like up close. Notice that there are little filaments, the mycelium, growing all through the body of the bread. Then there's fuzzy stuff on the surface of the bread. The fuzzies are



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little stalks upon which spores are forming. If you are allergic to mold, you'll want to skip the close up inspection or wear a face mask (probably a good idea anyway).

To design a more in depth experiment you can test:

- If bread with or without preservatives grows mold more quickly.
- If mold needs moisture to form.
- If mold needs light to form.
- If temperature makes a difference in mold formation.



## 🧐 🧪 EXPERIMENT: Culture Bread Mold

For this experiment you'll need:

moldy bread, from the last experiment  
Petri dish with cover  
Nutrient agar  
Inoculating needle with a looped end  
Bunsen burner or alcohol burner

For scientists to do experiments with a particular microorganism they have to be able to isolate it, or get it on its own. If it's not all by itself you can't tell which little critter is making the results happen. So in this experiment we'll isolate a mold.

1. Prepare your petri dishes by pouring heated nutrient agar into them, about half full, then covering and cooling. You need to start with sterile materials, dishes and agar, and

### Additional Layer

Some molds can be very dangerous to people. Mold causes respiratory problems like allergies, cold and flu symptoms, nervous system diseases, and cancer.

### It's A Funny!

What did one mushroom say to the other?

*You're a fun guy!*

Which vegetable goes best with jacket potatoes?

*Button Mushrooms!*

### Memorization Station

Memorize the definitions of:

fungus: organism that has cell walls made of chitin, feed on dead matter, and take in oxygen and release carbon dioxide

mushroom: the fleshy fruiting body of a fungus, having gills

mold: fungi that grows in the form of multicellular hyphae, but without a fleshy fruiting body.

Yeast: single-celled fungi

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## Our Summer BIG List

Summer is almost here, but we don't let the learning stop when the school year ends.

At the beginning of every summer we write a BIG list. The kids are in charge of making it. They list off all the things they are curious about, wonder over, or want to learn about.

- Tigers
- How batteries work
- Building roller coasters
- Creating robots
- Turtles
- What lives in a stream
- Why bugs bite
- How to bake
- Sewing a bag
- Making homemade fireworks

Anything that's on their minds gets added to the BIG list and we tackle them all. We get library books, plan experiments, do art projects, read and write, and fill our minds with all kinds of new interesting things.

*Karen*

keep them clean by keeping them covered and not touching the inside with hands or breathing directly on them.

2. Heat the end of your inoculating needle in the flame of a Bunsen burner until the wire glows. This kills any organisms on the wire and prevents contamination.
3. Let the wire cool for about ten seconds, then touch the wire to one type of mold on your bread. Your bread may appear to have one type of mold or many, choose one type for each petri dish.
4. Smear the needle lightly over the surface of the petri dish, then cover and place in a warm spot to grow.
5. Heat and cool your needle between each mold transfer.

For more, grow a bacteria culture on nutrient agar and then inoculate that plate with mold to see what effect the mold has on the bacteria. If you like you can purchase a *Penicillium notatum* live culture to see the experiment performed by Alexander Fleming in his discovery of penicillin.

## 🌞 🌱 🌿 **EXPERIMENT: Yeast Farmer**

Grow yeast. Yeast is a fungus too, a single celled fungus. You need baker's yeast from the baking area of the grocery store, warm water, and sugar.

Fill a glass or plastic pop bottle half full of warm water. Put in 2 tablespoons of yeast and 2 tablespoons of sugar. Swirl it around to stir it up. Now place a balloon over the end of the bottle. Let it sit for ten minutes.





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The balloon will fill up with air from the fermenting yeast. The yeast changes the sugar into alcohol and carbon dioxide gas. It is CO<sub>2</sub> gas filling the balloon.

You can now use your yeast mixture to bake bread. Just add another cup of water, the yeast mix, and enough flour to make a stiff dough to a mixing bowl. Shape your dough into a loaf and place on a greased cookie sheet. Let it rise for half an hour and bake at 350° F for 30 minutes.

After the bread is baked you can see tiny holes in the bread where the yeast filled the dough with gas. We use yeast in bread just so we can have those air holes to make our bread light and fluffy.

Look at your yeast under a microscope by making a thin smear on a slide.

## 😊 😊 😊 **EXPERIMENT: Shotgun Fungus**

The fungus pilbolus grows in cow and horse dung. When it wants to spread its spores it has to distribute them far away because cows and horses won't graze around their dung and the animal must eat the spore for the spore to end up in the next pile of dung, if you get my drift. The pilbolus uses a light sensitive fluid filled sac to shoot the spores several feet away and toward a sunny spot, where it is more likely the grass would be growing. The spores shoot out with one of the greatest acceleration forces ever observed on earth.

You can buy an experiment kit from Carolina Biological Supply to see how the pilbolus shoots its spores toward the light for yourself. Watch this video to see it right now:  
<http://youtu.be/Y4nob5rMqEo>

## 😊 😊 😊 **EXPLORATION: Grow a Mushroom**

Purchase a mushroom growing kit and make it a project. Just search Amazon for tons of options. In general the mushroom growing kits are for edible mushrooms so search out some recipes as well.

You can make this into a real experiment by testing different growing conditions on your mushrooms: light level, nutrients, temperature, moisture.

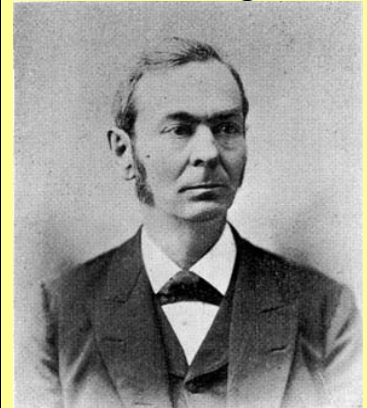


## **Fabulous Fact**

Mycology is the study of the Kingdom Fungi and is considered a branch of Botany, even though fungi aren't plants at all.

## **Famous Folks**

Charles Peck was an American mycologist who described and named over 2700 species of American fungi.



## **Breaded Mushrooms**

Dip whole button mushrooms in milk, then flour (add season salt, basil, or salt and garlic for more flavor), then beaten eggs, then bread crumbs. Bake 15-20 min in a 350 deg oven until lightly browned.



## ARTS: COMPOSING MUSIC

### Fabulous Fact

We tend to think of musical composers as people who lived a couple of hundred years ago in Europe and wore wigs. But there is great classical-style music being composed today, mostly for the film industry. People buy a lot of soundtracks. Of course, there are lots and lots of songs from your favorite pop stars too and some of that is even good music.

### Explanation

Composers are often commissioned to write pieces by companies or individuals. The composer is paid a fee and writes a piece for a particular event or concert and often with a particular focus, mood, and theme. For example, a composer may be asked to write a piece for the Queen of England's birthday celebration or for the opening ceremony of the Olympics or for a movie documentary about a past president. Each of these venues would need a different mood and theme.

Composing music isn't really something you can learn from doing a school unit for a couple of weeks. For many, music is a lifelong pursuit. No matter whether it becomes your passion or not though, everyone can have a basic working knowledge of some of the simple tools composers use when putting together a piece of music. Notes, dynamics, and structure are all part of music. You should be able to talk about music knowledgeably whether or not you are a musician.

### 🟡 🟢 🟣 EXPLORATION: Composing 101

Play this simple flash game to write your own mini song. If the notes are green it's an acceptable note placement. You can play back your mini melody too.

<http://www.classicsforkids.com/games/compose/compose.html>

### 🟡 🟢 🟣 EXPLORATION: Sing It

Have kids write their own songs just using their voices. They can write the words down, practice, and perform their original song.

Most songs are poetry in a regular rhythm, usually with the same number of syllables per phrase and a rhyming scheme. So start by writing a poem, then set it to a melody using your voice or an instrument.

Another variation of this is to take a very familiar tune, like *Twinkle, Twinkle Little Star*, and make up your own new words to it.

### 🟡 🟢 🟣 EXPLORATION: Dynamics

Dynamics are the different volumes of music. There are parts of songs that are very loud, while others are quite soft. We make little notations on the music to tell the musician how to play it. There are lots of dynamic symbols, but we'll just go over the basics.

*f* means forte (Italian for loud)



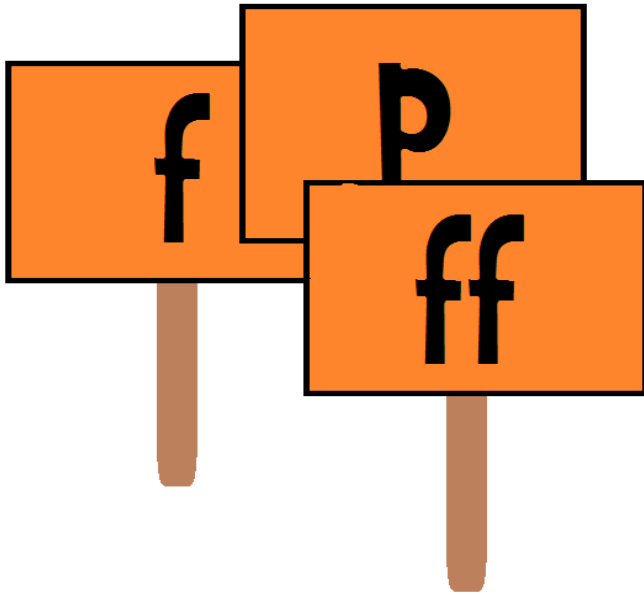
# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

*p* means piano (Italian for soft)

*ff* means fortissimo (very loud)

*pp* means pianissimo (very soft)

Write these symbols on signs made using card stock with popsicle stick handles. Sing a familiar song like *Row, Row, Row Your Boat* and change the dynamics as you go. Each time a new sign is held up, adjust your singing volume to match the dynamics signs.



## Tip

Instant bean bags can be made from:

Zipper sandwich bags filled with rice or beans

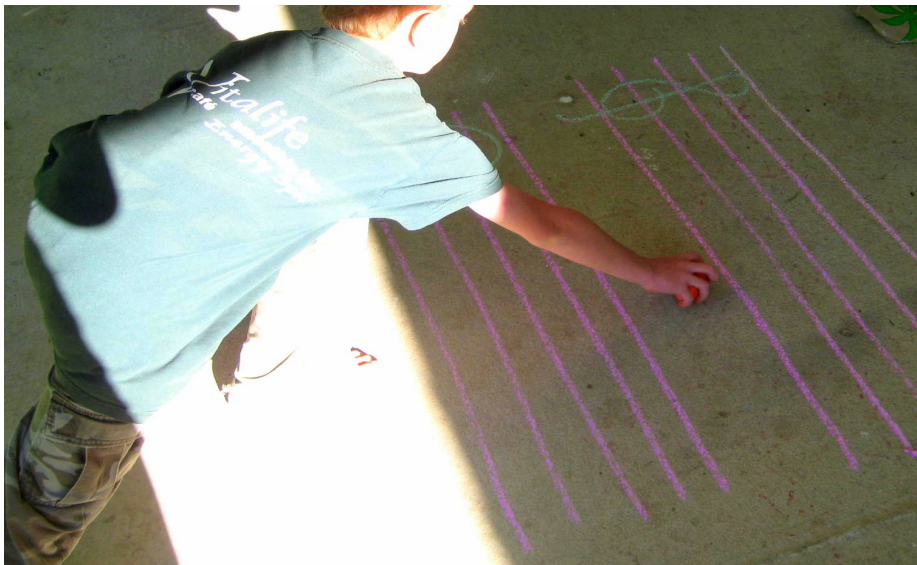
or

Two balloons, stems cut off. Fill one balloon clear full of rice, then put the second balloon over the ball of rice from the opposite side so the opening is sealed off.



## 🌞 🌱 EXPLORATION: Note Name Beanbag Game

To learn and practice note names, use masking tape to create a musical staff on the floor or use chalk outside. Have kids toss beanbags on the staff, then name the note where the beanbag lands. You can designate one or two special notes for each round that are worth 3 points instead of just one.



## Famous Folks

John Williams is a modern American composer whose music is probably more recognizable to more people than just about any other composer ever. He wrote the music scores to films such as *Star Wars*, *Jaws*, *Superman*, *Indiana Jones*, *E.T.*, *Harry Potter*, and more. He also wrote the theme music for NBC Sunday Night Football, several Olympics games, and the NBC Nightly News.

He has won multiple awards for his work.



# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## Teaching Tip

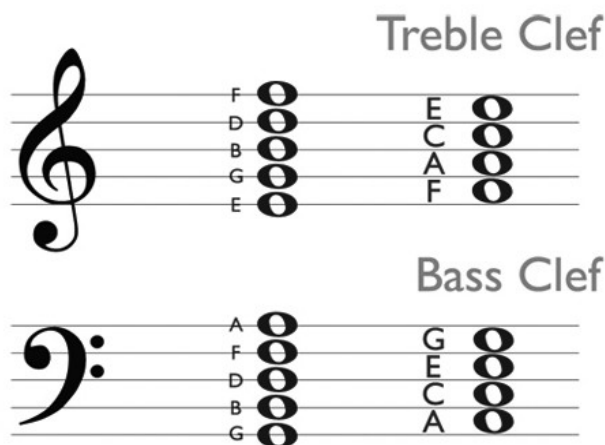
Make music available to your kids by having music in many styles in your home as well as instruments, especially a piano. Look for used, and sometimes free, pianos on Craig's List and Freecycle.

## Famous Folks

Alan Menken wrote the scores for the films *Beauty and the Beast*, *The Little Mermaid*, *Aladdin*, and *Tangled* among others. He has won more Oscars than any other living person.

If you want to be a composer someday, learn more about the lives and educations of the people who have been successful at it.

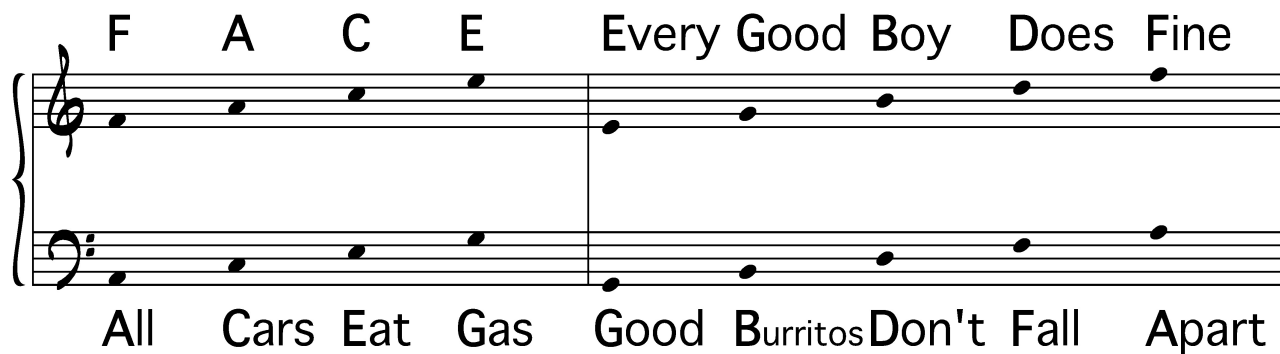
The notes that are highlighted will be more easily memorized, until eventually they'll know all the notes. Your staff will look like this, but without any notes of course:



The lower the notes are down the staff, the lower the pitch is. Higher notes have a higher pitch. Notes are read like words, left to right. If more than one note is stacked vertically on the staff, that means you play those notes at the same time.

## EXPLANATION: Note Name Helps

Each note has a letter name, A through G. After each 8 notes (called an octave), the letters repeat again. These little mnemonic devices can help you memorize the notes:



## Stay Tuned

We'll look more closely at specific composers and musical styles in other units.

## EXPLORATION: Musical Elements

Sing this little song to the tune of *Twinkle, Twinkle Little Star* to help kids learn the meanings of some basic musical elements:

*Pitch means sounds are high or low.*  
*Tempo means go fast or slow.*  
*Dynamics can go with a BANG!*  
*Or make a sound as quiet as you can.*

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

*Pitch means sounds are high or low.  
Tempo means go fast or slow.  
Over and over and over again  
Ostinato is the name.*

*Duration can be short or long  
The length of sounds in a tune or a song.  
Over and over and over again  
Ostinato is the name.*

*Rhythm makes a pattern of sounds.  
(Clap clap-clap clap clap/clap-clap clap clap)  
Pulse will keep a steady beat  
Sounds like slowly marching feet.  
Rhythm makes a pattern of sounds.  
(Clap clap-clap clap clap/clap-clap clap clap)*

*Timbre is quite hard to say.  
Listen to the instruments play  
Bright and bold, harsh or hollow.  
Maybe gentle, warm or mellow.  
Timbre is quite hard to say.  
Listen to the instruments play.*

## 😊 😊 😊 **EXPLORATION: Musical Feelings**

One of the neatest things music can do is evoke emotions in us. This can't be marked by notations on the page, though sometimes there are instructions that say things like boldly, patriotically, gently, and others. Mostly, we feel those things because of the connection between the musician and ourselves.

Play several tidbits of music and for each one, have the kids say what kind of feeling the piece portrays. Try to use clips of lots of different styles and feelings. You Tube is my go-to place for music. . . you can ignore the accompanying videos.

## 😊 😊 😊 **EXPLORATION: Creating Music**

<http://www.creatingmusic.com/> has really neat tools for learning about, listening to, and creating music. Check out the musical sketchpads inside of the *Creating Music* section for a really cool visual interpretation of composing. The *About Pitch* tab has sound bytes of perfect examples of the movement of pitch and how notes can go up or down.

## 😊 😊 😊 **EXPLORATION: Games**

Go check out this website <http://www.dsokids.com/games.aspx> for some cool musical games. Play Beethoven's Baseball, Music Match, and Time Machine.

## **Famous Folks**

The Newman family is a family of composers who have done much of their work for Hollywood.

You probably know many of Randy Newman's works. He composed the scores for *James and the Giant Peach*, *Toy Story*, *A Bug's Life*, *Monster's Inc*, *Cars*, and the *Toy Story* sequels. He has won multiple Academy Awards, Emmys, Grammys and other awards.

## **Writer's Workshop**

<http://musescore.org/> is another free music composition download. Compose your piece, print it out and put it in your Writer's Notebook.

Sometimes my kids even write songs to help them memorize the things we're learning. They make up their own tunes or use familiar ones.

Try it – make a song up to help you memorize all the planets or a verse of scripture.

You may also turn a poem you've written into a song.

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

## On The Web

[www.Makingmusicfun.net](http://www.Makingmusicfun.net) is a great place to find composers' coloring sheets and biographies, lots of free printable sheet music, and other cool stuff.

## Writer's Workshop

Choose a composer, past or present, and do some research on him or her. Find out about his life, experiences, musical training, and works. Try to learn what inspired her to write her songs. Write about what you've found and then present it as a slideshow presentation with the composer's music in the background.



French composer, Sophie Gail

## 🌞 🌱 🌿 EXPLORATION: Compose Your Own

For the final project of this unit, compose your own piece of music. Finale Notepad is a composing program you can download for free. There is a quick tutorial to get you started if you're a beginner. You can put the notes on the staff, add dynamics and phrasing, and even play back your composition. This can be just a simple melody line, or you can compose complex pieces with chords, depending on your working musical knowledge. You may want to review the rhythm and melody units for more help with this.

## 🌞 🌱 🌿 EXPLANATION: I'm Not A Music Teacher!!!

People often come up to me and say, I don't know how you teach your kids at home, I could never do algebra, or art, or history, or foreign language because I don't know those things well enough myself to teach them. Yeah, pretty much I'm an expert on every possible subject K through 12. No biggie, that's me, the expert . . .

Actually, I don't know that stuff either. At the beginning I didn't even know basic stuff like how to teach a child to read or how to guide a child in writing a simple research paper. As for art and music, let's just say I'm challenged. But I am a fairly decent reader and can follow directions. Therefore I can teach my child nearly anything, with a little help from my friends: books. Along the way I'm becoming very well educated along with my kids.

For example, my son wanted to learn basic guitar. I have a guitar, but as I mentioned earlier, no talent. So I got a book and CD, *Learn and Play Guitar* from First Act Discovery. He spent 12 weeks going through the basic course, by the end of which we realized he has no talent or lasting desire either. I'm only out a few dollars and he's had a new experience. If he had found a love for it, I'd find him a great mentor and have him continue.

My other son is learning about art history and WWII by the same method – good books. The same is true of every other course my kids take from religion to foreign language to writing skills to math. It's all a matter of finding the right books, and when a passion is discovered, the right mentors.

Michelle

Coming up next . . .

Year  Two

# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

**My Ideas For This Unit:**

**Title:** \_\_\_\_\_ **Topic:** \_\_\_\_\_

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# ROMAN EMPIRE – YOU EXPLORE – FUNGI – COMPOSING MUSIC

**My Ideas For This Unit:**

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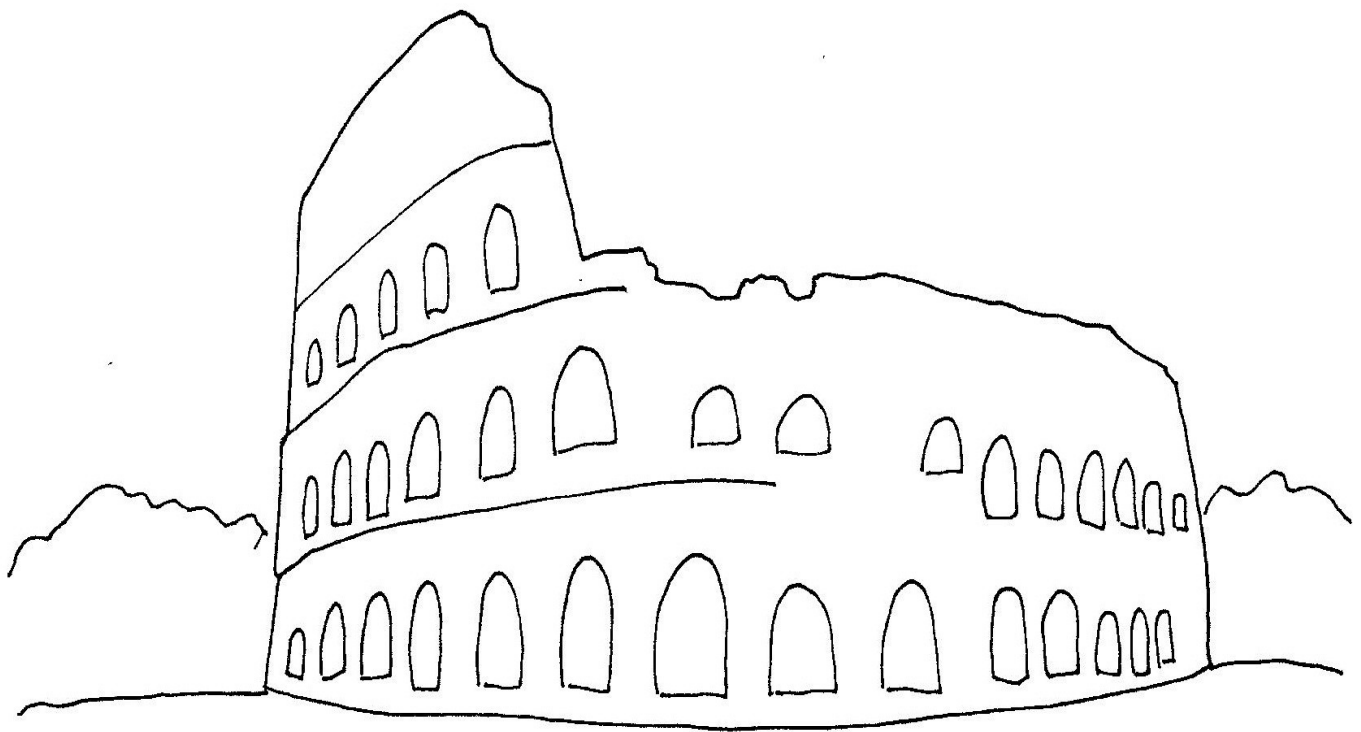
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# The Colosseum

The Colosseum is an amphitheater in Rome, Italy. It was the largest amphitheater in the Roman Empire when it was built, and is still the largest in the world, holding more than 80,000 people. It was a stage for gladiator fights, sea battles, animal hunts, and other public shows. This picture shows how it looks today, with some of the stone walls broken and missing. Earthquakes and vandalism have partly destroyed it, but it is still visited by tourists every day.



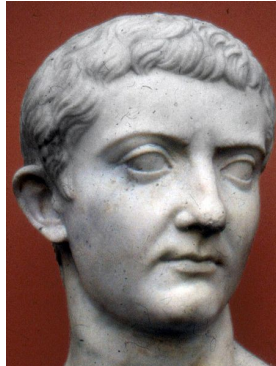
# Roman Empire: Unit 1-20

**31 BC** I-20



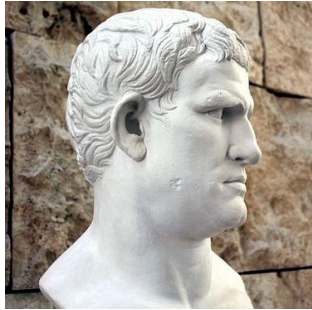
Octavian, later named Augustus is made Emperor of Rome

**14 AD** I-20



Tiberias is Emperor; tries to restore the Republic, but is rejected by the senate

**25 AD** I-20



Agrippa builds the Pantheon

**37 AD** I-20



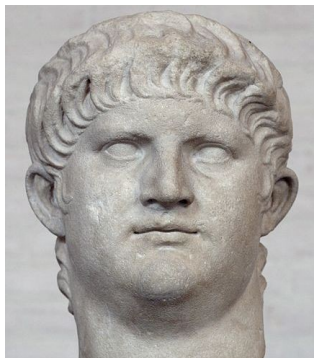
Caligula become emperor, but he is insane and is assassinated

**43 AD** I-20



Romans invade Britain and found Londinium a few years later

**54 AD** I-20



Nero is emperor; in a few years he will set fire to Rome and blame the Christians

**70 AD** I-20



Tito becomes emperor and brutally destroys Jerusalem and other Jewish towns; the Jews are scattered across Europe and Asia

**72-80 AD** I-20



Colosseum is built in Rome

**79 AD** I-20



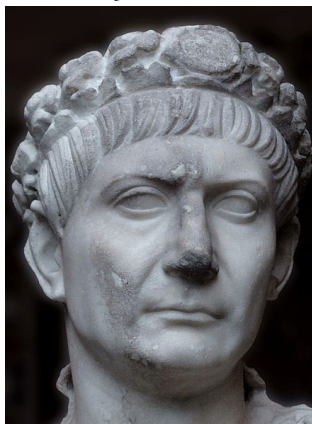
Mt. Vesuvius erupts, burying Pompeii and Heraculaneum

**97 AD** I-20



Rome forbids human sacrifice throughout the empire

**98 AD** I-20



Trajan becomes emperor; Roman Empire reaches its greatest extent

**117 AD** I-20



Hadrian becomes emperor; builds his famous wall in 122 AD



**136 AD** I-20



Jewish revolt is put down and Jews are forbidden to return to Jerusalem

**167 AD** I-20



First barbarian attack on Roman Empire

**193 AD** I-20



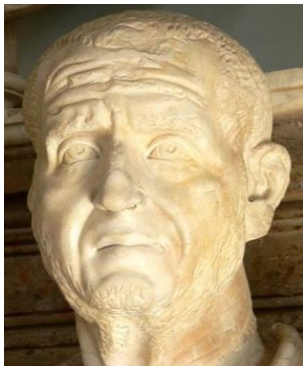
General Septimius Severus seizes power and turns Empire into a military dictatorship

**211-284 AD** I-20



Praetorian Guard assassinates one emperor after another; civil wars erupt and last until 285 AD

**250 AD** I-20



Empire wide persecution of Christians ordered by Emperor Decius

**253 AD** I-20



Thirty "tyrants" declare themselves kings over land belonging to the empire

**285 AD** I-20



Diocletian reunites the rebellious kingdoms; he then splits the Empire into four parts

**312 AD** I-20



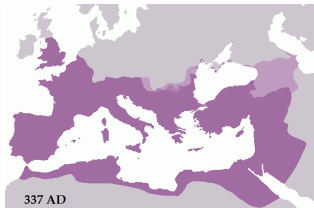
Constantine becomes emperor of the west, after abandoning his post in Britain and emptying Britain and France of troops, leaving the way open for the barbarians

**313 AD** I-20



Constantine ends Christian persecution

**324 AD** I-20



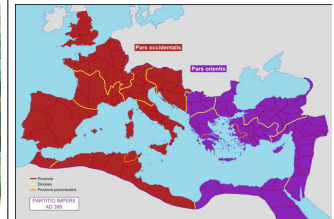
Constantine re-unites the empire

**370 AD** I-20



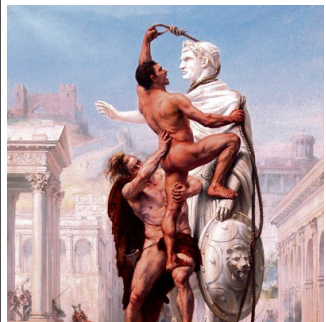
Huns arrive in Europe from Asia and push other barbarian tribes into Rome's territory

**395 AD** I-20



Rome splits in two again

**410 AD** I-20



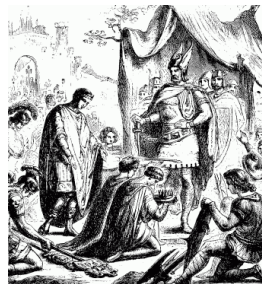
City of Rome sacked by Visigoths

**455 AD** I-20



City of Rome sacked by Vandals

**476 AD** I-20

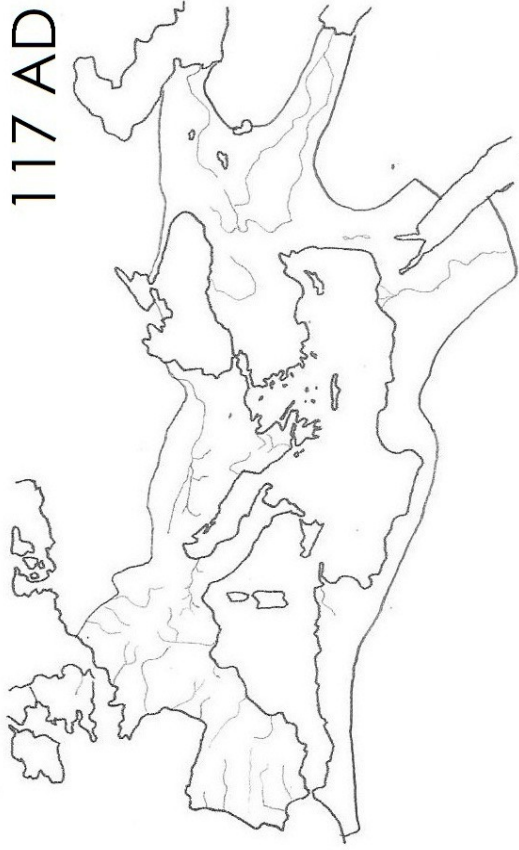


Ostrogoth chief, Odoacer names himself king of Italy; western empire ends



# Decline of the Roman Empire

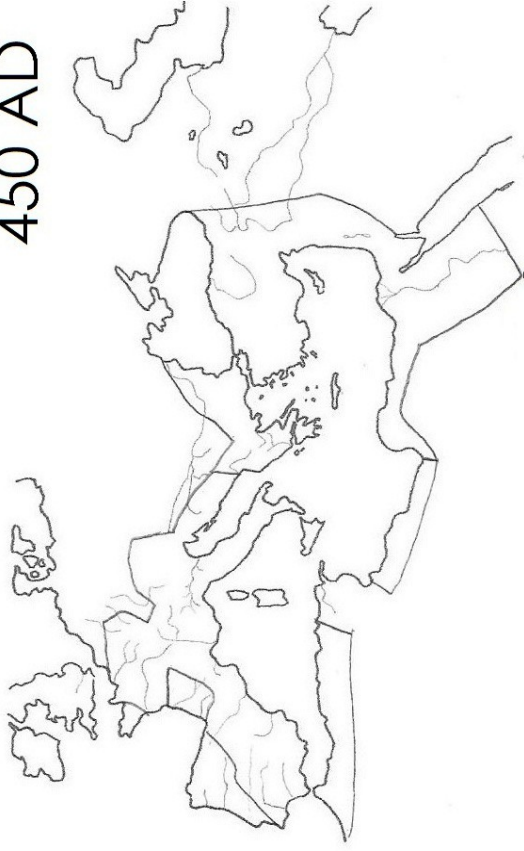
117 AD



293 AD

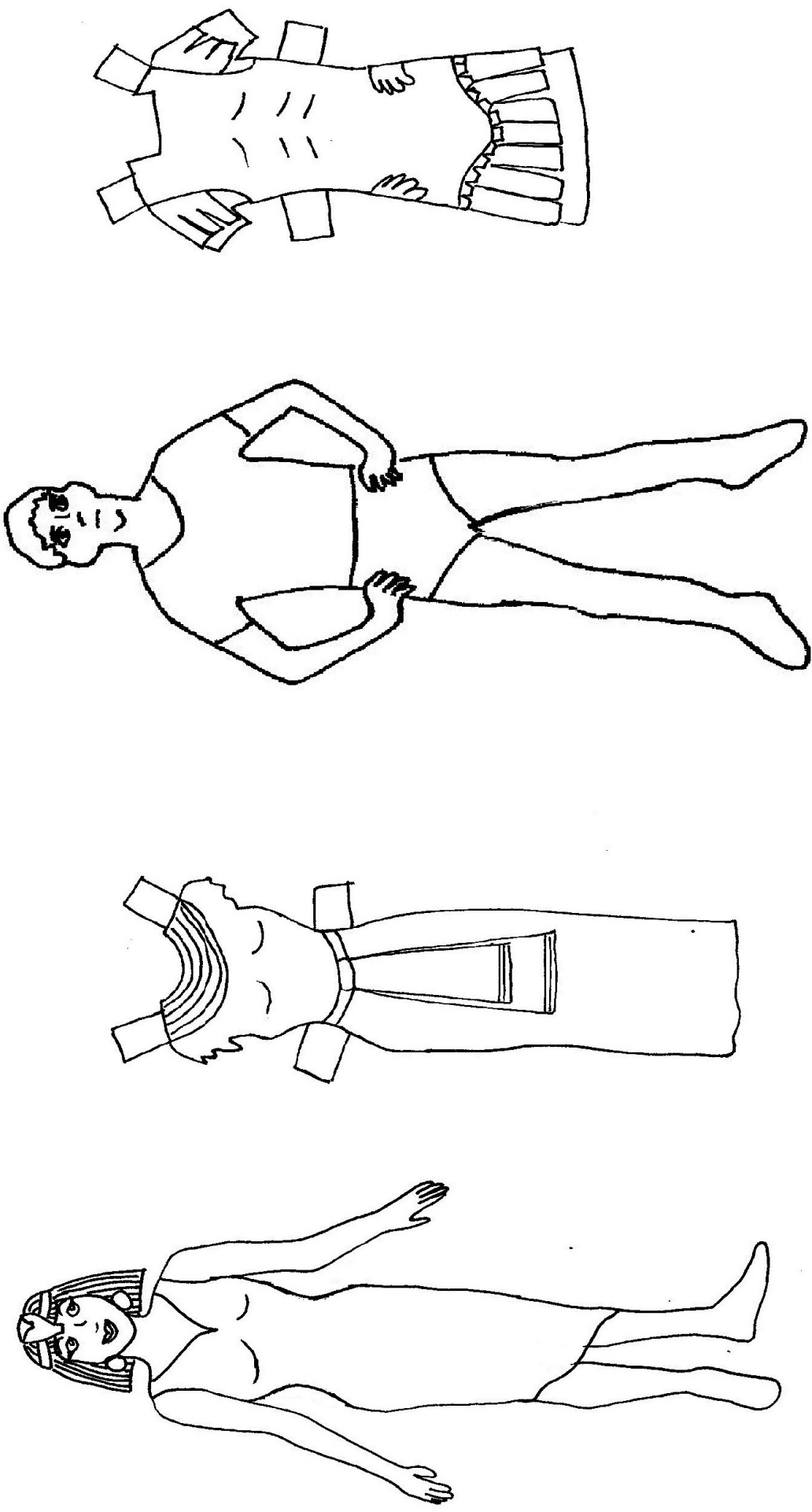


450 AD

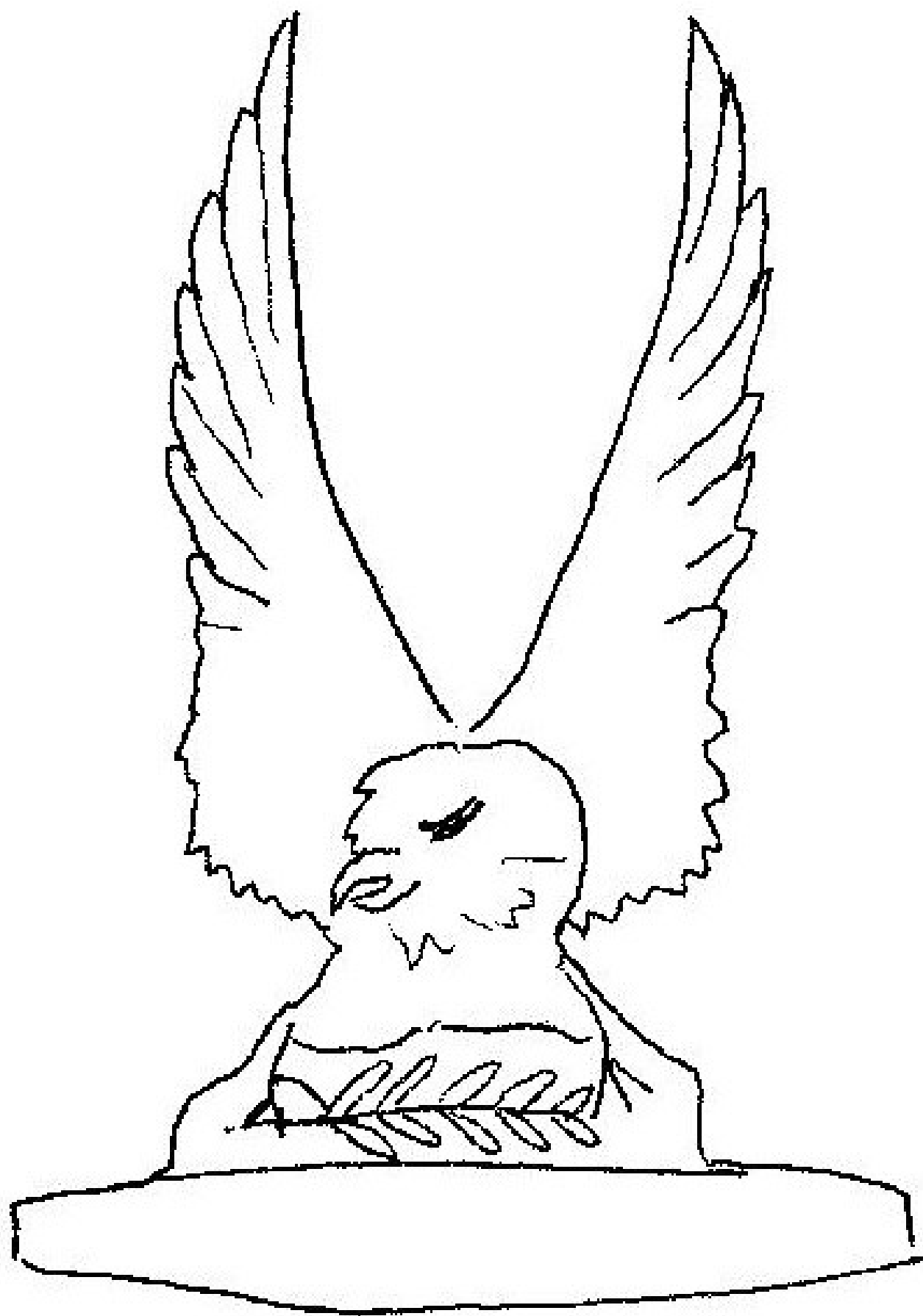


476 AD





**Cleopatra and Antony Paper Dolls**





# ABOUT THE AUTHORS

Karen & Michelle . . .  
Mothers, sisters, teachers, women who are passionate  
about educating kids.  
We are dedicated to lifelong learning.



Karen, a mother of four, who has homeschooled her kids for more than eight years with her husband, Bob, has a bachelor's degree in child development with an emphasis in education. She lives in Utah where she gardens, teaches piano, and plays an excruciating number of board games with her kids. Karen is our resident Arts expert and English guru {most necessary as Michelle regularly and carelessly mangles the English language and occasionally steps over the bounds of polite society}.

Michelle and her husband, Cameron, homeschooling now for over a decade, teach their six boys on their ten acres in beautiful Idaho country. Michelle earned a bachelor's in biology, making her the resident Science expert, though she is mocked by her friends for being the *Botanist with the Black Thumb of Death*. She also is the go-to for History and Government. She believes in staying up late, hot chocolate, and a no whining policy. We both pitch in on Geography, in case you were wondering, and are on a continual quest for knowledge.

*Visit our constantly updated blog for tons of free ideas,  
free printables, and more cool stuff for sale:*

[www.Layers-of-Learning.com](http://www.Layers-of-Learning.com)