

## Cover Page AMI Day 4 Assignments

### Reading:

- Read self-selected novel for 30 minutes. Parent Signature  
\_\_\_\_\_
- Complete Reading Response
- Read the fluency passage for 1 minute, marking the spot that you finish and record the number of words read in the blank that is provided.
- Complete the writing prompt

Math: Complete the attached pages

Social Studies: Read the article and answer the questions.

Science: Read the article and answer the questions.



## Pompeii Yesterday and Today

Pompeii was an ancient city in southern Italy that disappeared after a nearby volcano erupted in A.D. 79. The city lay buried under layers of cinders, ashes, and stone for hundreds of years before it was rediscovered in the 1700s. Now more than three quarters of the city has been uncovered, and much of the city looks just as it did in ancient times.

During the disaster, lava and mud flowed into a nearby city but not into Pompeii. Instead, the city was showered with hot, wet ashes and cinders. When the ashes and cinders dried, they covered and sealed up much of the city. Only the tops of walls and columns could be seen. Later, other eruptions completely buried the city.

Many wealthy Romans lived in ancient Pompeii. The weather in Pompeii was warm and sunny, and Romans built large villas there to take advantage of the good climate. Many of the buildings near the center of the city had two stories. The city was surrounded by a great wall with seven gates and had a theater, many temples, a gladiator's court, and three large public baths.

During the eruption of A.D. 79, the air was filled with poisonous gases. Many people were able to get away, but many others died in their homes or as they fled.

Today visitors can walk in and out of houses and up and down narrow lanes, just as people did long ago. The eruption took place while the city was having an election. Visitors can still see election slogans on many walls.

1. Why was Pompeii so well preserved?
2. Why is finding Pompeii an important discovery?

\_\_\_\_\_ words per minute



Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Dividing Fractions

$$1) \quad \frac{5}{10} \div \frac{3}{4} = \frac{5}{10} \times \frac{4}{3} = \frac{20}{30} = \frac{2}{3}$$

$$2) \quad \frac{3}{10} \div \frac{2}{4} =$$

$$3) \quad \frac{1}{2} \div \frac{9}{10} =$$

$$4) \quad \frac{5}{10} \div \frac{3}{4} =$$

$$5) \quad \frac{1}{2} \div \frac{3}{4} =$$

$$6) \quad \frac{6}{10} \div \frac{1}{4} =$$

$$7) \quad \frac{3}{4} \div \frac{2}{5} =$$

$$8) \quad \frac{2}{3} \div \frac{4}{5} =$$

$$9) \quad \frac{1}{5} \div \frac{2}{3} =$$

$$10) \quad \frac{2}{3} \div \frac{1}{2} =$$

$$11) \quad \frac{6}{10} \div \frac{1}{5} =$$

$$12) \quad \frac{3}{4} \div \frac{1}{3} =$$

$$13) \quad \frac{2}{3} \div \frac{1}{4} =$$

$$14) \quad \frac{1}{2} \div \frac{4}{10} =$$

$$15) \quad \frac{1}{3} \div \frac{2}{4} =$$

# It's Blue and Green versus the Roman empire in tale of chariot races

By Smithsonian.com, adapted by Newsela staff on 01.24.17

Word Count 717

Level 810L



TOP: Painting of chariot racing in a Roman circus, made by Albert Kuhn in 1913; Wikimedia Commons. SECOND: The emperor Justinian, from a mosaic in the Basilica of San Vitale in Ravenna, Italy; Wikimedia Commons. THIRD: Mosaic of Theodora in the Basilica of San Vitale. Wikimedia Commons.

“Bread and circuses,” a poet named Juvenal said. “That’s all the common people want.” He wrote poems in Rome, about 2,000 years ago. Juvenal meant that people want to eat and to be entertained.

During the Roman Empire many people went to the circus. But it was not like the circus today. There were horse races, athletics, plays, animal hunts, gladiator fights and much more. There were even religious ceremonies and public feasts.

In Juvenal's time, one of the most popular entertainments at the circuses of Rome was chariot racing. A chariot is a type of carriage with a person in it that is pulled by horses. The races were fast and dangerous. Charioteers were often hurt and sometimes died.

## **Chariot Racing Paid Well**

Charioteers usually were first slaves. They raced because there were large fortunes to be won. It was possible to make as much as 15 bags of gold for winning a single race. People watching in the crowds also bet money.

By the 500s A.D., there were two race teams: the Greens and the Blues. The teams were hugely popular in the Byzantine Empire. The Byzantine Empire was also called the Eastern Roman Empire. The Byzantine Empire continued the Roman Empire after the Western Roman Empire ended. The capital city of the Byzantine Empire was Constantinople. Today Constantinople is Istanbul in Turkey.

Greens and Blues supporters were passionate, so much so that they frequently caused bloody rioting in the crowds.

## **Groups Split Along Possible Political Lines**

Historians still don't know exactly what the Blues and the Greens stood for. For a long time it was thought that the two groups were like early political parties. The Blues represented the ruling classes and the Greens were the party of the common people. Disagreement between the Blues and the Greens came to a head during the rule of Justinian in the 500s A.D. He was one of Byzantium's greatest but most controversial emperors.



In the course of Justinian's rule, the empire recovered a great deal of lost territory because the emperor was served by some of Byzantium's heroes. Justinian had another highly influential person who helped him: his wife Theodora.



## **Empress Was A Child Of The "Circus"**

Theodora was exceptionally beautiful and intelligent and helped run the empire. This was controversial because she was a woman, and even more controversial because of the empress's background.

Theodora had grown up poor. She was a child of the circus who became Constantinople's best-known actress. Theodora grew up to be a strong supporter of the Blues. Justinian also supported the same team.

## **People Were Angry Over Higher Taxes**

The fast-growing importance of the circus people and increasing taxes that people paid to the government combined in the year 532. People were unhappy. This was made worse when Justinian reacted harshly to an outbreak of fighting between the Greens and the Blues at the races. Justinian knew the fighting and the anger could grow. So, he stopped supporting the Blues and sent his troops into the races. The troops captured leaders from both the Blues and the Greens. These seven men were sentenced to death.

The men were taken out of the city a few days later to be hanged. But, two of the men survived when the stage broke where they were to be hanged. The two men were each a Blue and a Green and became united by their near-death experience.

## Rioting Leads To Many Deaths



The next time the chariots raced, the Blues and Greens together wanted victory over the emperor himself. Angry crowds left the races and poured out into the city to burn it down. For five days the rioting continued and nothing Justinian did could satisfy the crowd.

Justinian wanted to flee the city, but Theodora refused to go and challenged him to stay and fight, even if it meant their death. Justinian stayed and planned a counterstrike.

The Blues and the Greens were still assembled for the races, so the troops attacked them there while guards prevented anyone from escaping. About 30,000 people died.

Justinian and Theodora then had little trouble re-establishing their control. The riots marked the end of a time when circus people had some power over the great empire, and also signaled the end of chariot racing within Byzantium.

## Quiz

- 1 Which of the following BEST describes the structure of the article?
  - (A) a series of causes and effects
  - (B) a series of problems and solutions
  - (C) a list of quotations
  - (D) a list of comparisons
  
- 2 What is the purpose of the section "Rioting Leads To Many Deaths"?
  - (A) to explain how Justinian and Theodora reacted to the rebellion of the people
  - (B) to compare counterstrikes planned by Justinian and Theodora
  - (C) to illustrate the details of the friendship between the Blues and Greens
  - (D) to describe reasons why many Blues and Greens had become angry
  
- 3 Which sentence from the article BEST supports the idea that chariot races were violent events that were important to the people?
  - (A) In Juvenal's time, one of the most popular entertainments at the circuses of Rome was chariot racing.
  - (B) Charioteers were often hurt and sometimes died.
  - (C) Greens and Blues supporters were passionate, so much so that they frequently caused bloody rioting in the crowds.
  - (D) Theodora grew up to be a strong supporter of the Blues.
  
- 4 Based on the article, which of the following statements is TRUE?
  - (A) Those who became charioteers were usually people who came from wealthy ruling families.
  - (B) Theodora's leadership was controversial because she was a woman from a poor background.
  - (C) There are many records that explain exactly what the Greens and Blues stood for.
  - (D) The people were happy with Justinian when his troops arrested leaders at the races.

# Solar Absorbers and the Future of Electricity

by James Folta



Electricity is what we use to power things at home or at school. You can probably look around right now and see an electrical outlet or two. Everything that we plug into one of these outlets uses electricity. But where does this electricity come from? Right now we have a few ways to make electricity. Some are better than others. There are some scientists who are trying to find new ways to get electricity that are better for the planet Earth.

Most electricity is generated by machines that are run by steam. Making a lot of steam is the hard part. Water has to be heated up so that it boils and becomes steam. In the United States, a lot of different things are burned to create this steam. The most common things that are burned are oil, gas, and coal. The United States uses a lot of electricity, and so we burn a lot of oil, gas, and coal. In 2012, the United States of America used more oil and gas than any

other country in the world and was number two in the world for using coal.

The problem with using these things is that burning them can be harmful and damaging to the earth. Also, there is only a certain amount of coal, gas, and oil in the world, and they are running out very quickly. We can't make more of them. What happens when they run out? How else can we get electricity?

There are some people who are trying to answer this question. There are many scientists who are developing different methods of getting electricity. One of these people is Jeff Chou, who is a scientist and researcher working on new ways of getting electricity. Jeff works at MIT, which stands for Massachusetts Institute of Technology. It is a university in Cambridge, Massachusetts. MIT is very well known, and people from all over the world go to study there. It is one of the best colleges to learn and practice science.

Jeff is at MIT working as a researcher on electricity. He decided he wanted to be a scientist in high school: "I happened to like the math and physics classes, so in college I chose to focus on electrical engineering." Electrical engineering is studying how electricity works. This is helpful for knowing how things like computers work. In fact, Jeff can build the computer chips that make computers run!

Jeff likes being a scientist because he can change the world. "I get to work on tough problems that could help out everyone on Earth," Jeff says. Jeff likes that he gets to try to "come up with new solutions by thinking creatively. In fact, in science, wild and crazy ideas are encouraged!"

Jeff has been working on how to get better solar power. Solar power, Jeff says, is "converting the light we get from the sun into usable electrical energy." You can feel this energy yourself: the sun feels hot on your skin because it is sending out energy. Solar power is different from oil, gas, or coal because it is what is called renewable energy. This means that its source is not consumed when we use the energy, as happens with gas, for instance, which burns away. Things like the wind, the sun, and ocean currents are called renewable because they won't go away anytime soon.

At MIT, Jeff has been "working on new ways to convert solar energy into electricity." He made something called an absorber. It takes the heat from something hot, like the sun, and turns it into electricity. Absorbers are very small. They are special panels made out of silicon and other materials. These panels can "absorb and convert each photon [from the sun] that comes in, into an electron." These electrons can be used to make electricity. This can power anything, like a toaster, or a TV, or even some cars.

Jeff's job as a researcher involves doing lots of experiments. Jeff says that experiments are the heart of science. You have to take your ideas and test them to see if they work or not. "Sometimes the ideas work and sometimes they don't, and that's science in a nutshell," Jeff says. These experiments involve lots of special equipment and laboratories. Jeff does most experiments in a clean room, which is a room that has no germs or dirt or anything that might damage his experiments. In the clean room, Jeff made the tiny solar absorbers. Then he shined light on them to see how much energy they could make. He took careful notes and measurements so that he could tell everyone how good or bad the device was.

Jeff likes working with solar energy because it is better for the earth. "Solar energy is very important because we can create electrical energy without polluting the earth," Jeff says. Older ways of getting electricity that use oil, gas, or coal are more harmful. They "burn toxic chemicals and release them into the sky and Earth, which are harmful to you and me," Jeff says. But the absorbers that Jeff built are cleaner. "All we have to do is point our solar silicon panels towards the sun, and we get clean energy," Jeff says.

For Jeff, his solar absorbers are very exciting because they can help us turn anything hot into electricity. Jeff is hoping that if his panels are sensitive enough, anything hot could generate electricity, not just the sun. He says, "There are a lot of hot things we encounter every day; imagine if we can now use those to help power an entire city!" This is the exciting part of science for Jeff. He is helping to make the world a cleaner and better place through his solar panels. If scientists like Jeff are successful, the world would be able to get all its electricity from clean, renewable sources. This would make our world a cleaner and safer place to live.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. What kinds of energy does Jeff Chou work with?

- A. energy from coal, gas, and oil
- B. solar energy and energy from coal
- C. electrical energy and energy from oil
- D. solar energy and electrical energy

2. What does the passage describe?

- A. The passage describes electricity and the efforts of a scientist to turn solar energy into electricity.
- B. The passage describes the reasons that people from all over the world go to study at MIT.
- C. The passage describes what Jeff Chou does to keep the room where he does his experiments clean.
- D. The passage describes the few harmful byproducts that are created by people use energy from the sun.

3. Getting electricity from oil, gas, and coal pollutes the Earth.

What evidence from the passage supports this statement?

- A. Jeff Chou hopes that his panels will be sensitive enough to absorb electricity from anything hot, not just the sun.
- B. In order to generate steam for its electricity needs, the United States has to burn a lot of oil, gas, and coal.
- C. Using oil, gas, and coal burns toxic chemicals and releases them into the sky and the earth, which is harmful to people.
- D. According to Jeff Chou, testing your ideas to see whether or not they work is at the heart of science.

4. What is solar power?

- A. energy that comes from burning oil, gas, and coal
- B. energy from the sun that is turned into electricity
- C. steam that is created by boiling water
- D. the study of how electricity works



5. What is this passage mostly about?

- A. the reasons that the United States of America used more oil and gas than any other country in 2012
- B. the computer chips that Jeff Chou learned how to build as an electrical engineer
- C. electrical engineering, the process of burning coal, and the importance of electrical outlets in daily life
- D. electricity, solar energy, and a scientist working on ways to turn solar energy into electricity

6. Read the following sentence: "At MIT, Jeff has been 'working on new ways to **convert** solar energy into electricity.'"

What does the word **convert** mean?

- A. increase
- B. decrease
- C. change
- D. destroy

7. Choose the answer that best completes the sentence below.

Solar power is renewable; \_\_\_\_\_, power from oil, gas, and coal is not renewable.

- A. however
- B. especially
- C. in conclusion
- D. initially

8. What did Jeff make to convert solar energy into electricity?

9. According to Jeff, why is solar energy "very important"?

10. Are the solar absorbers that Jeff worked on a better way of getting electricity than oil, gas, and coal? Use evidence from the passage to explain why or why not.