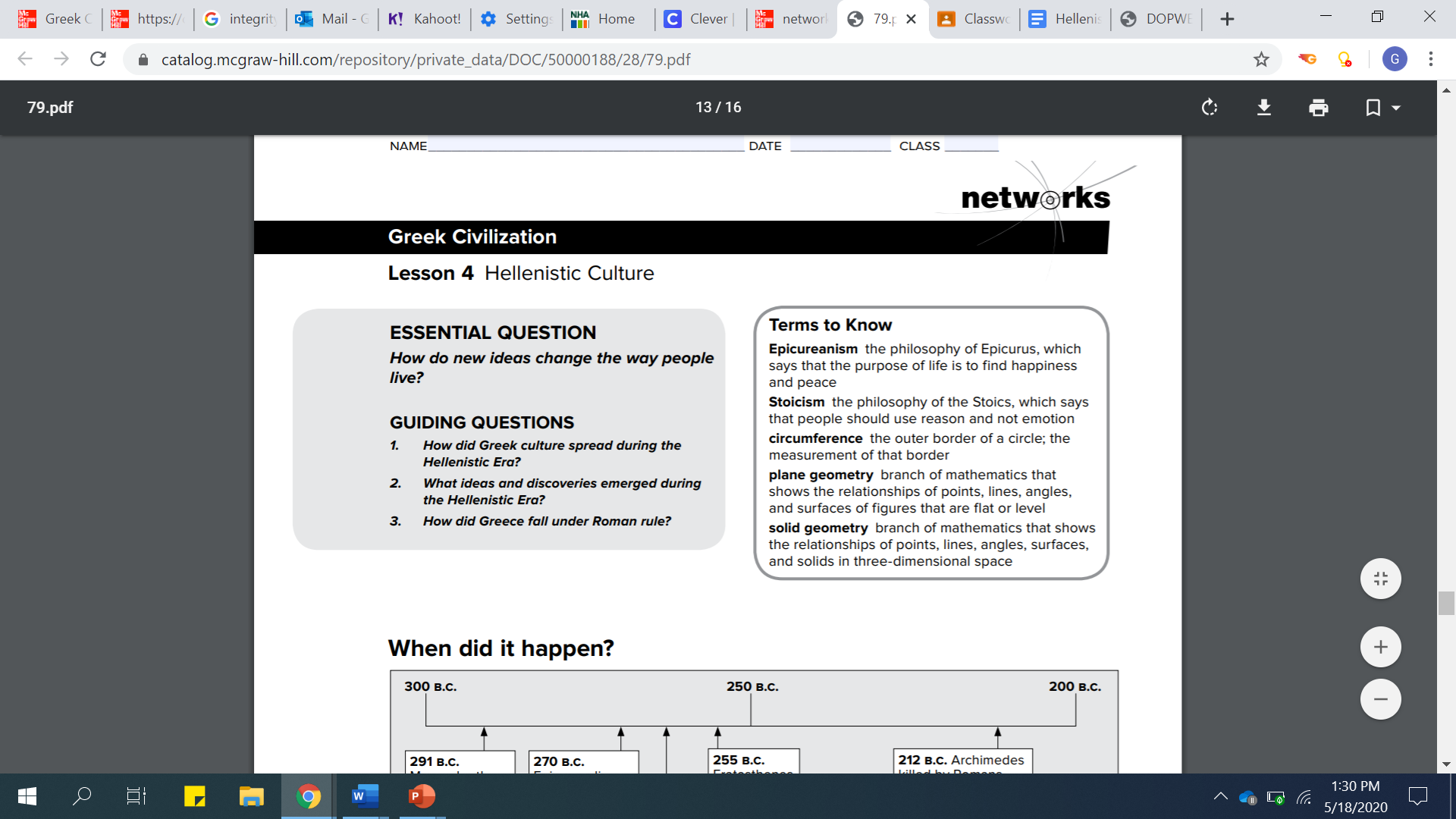
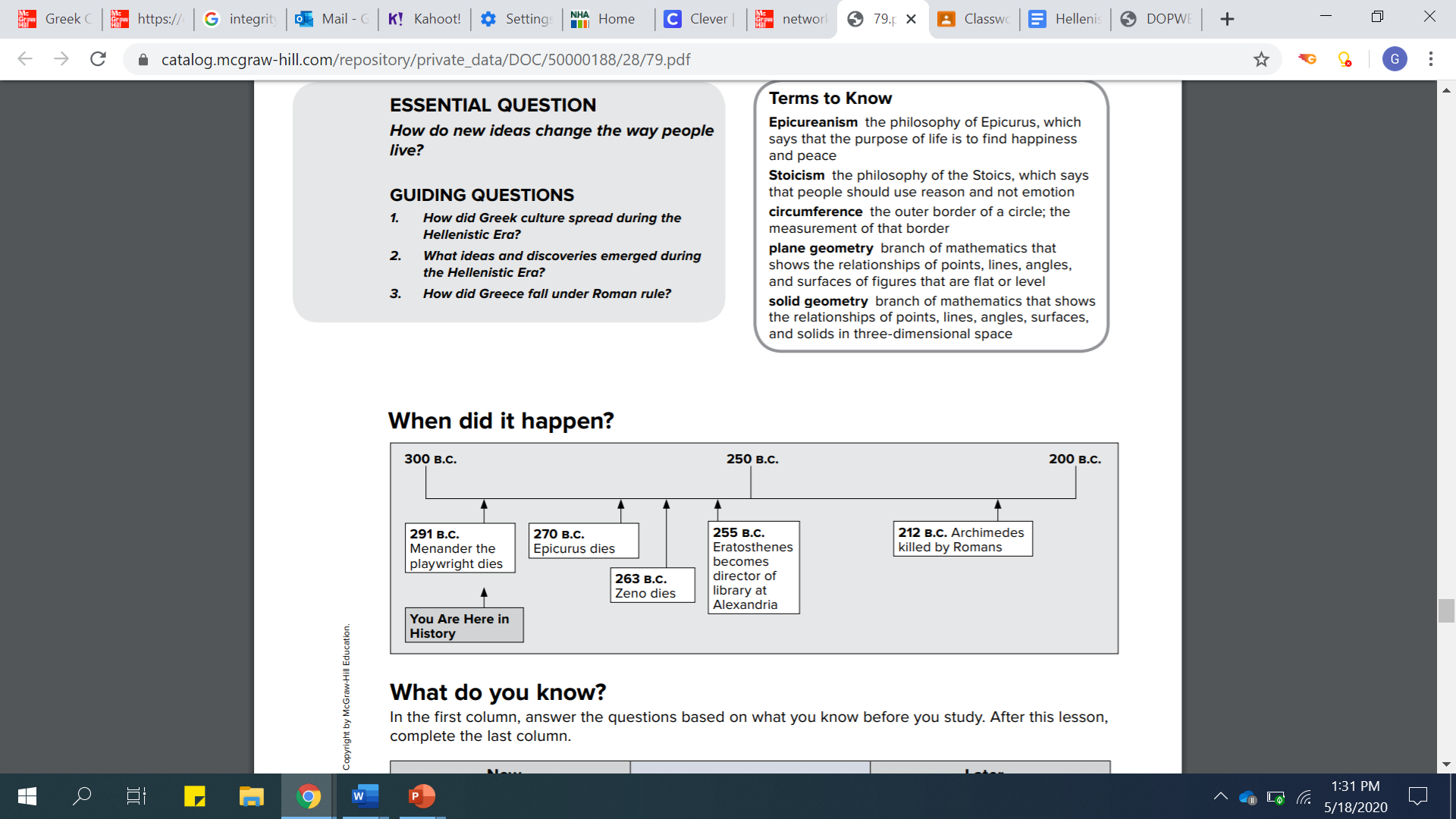
**Hellenistic Culture**





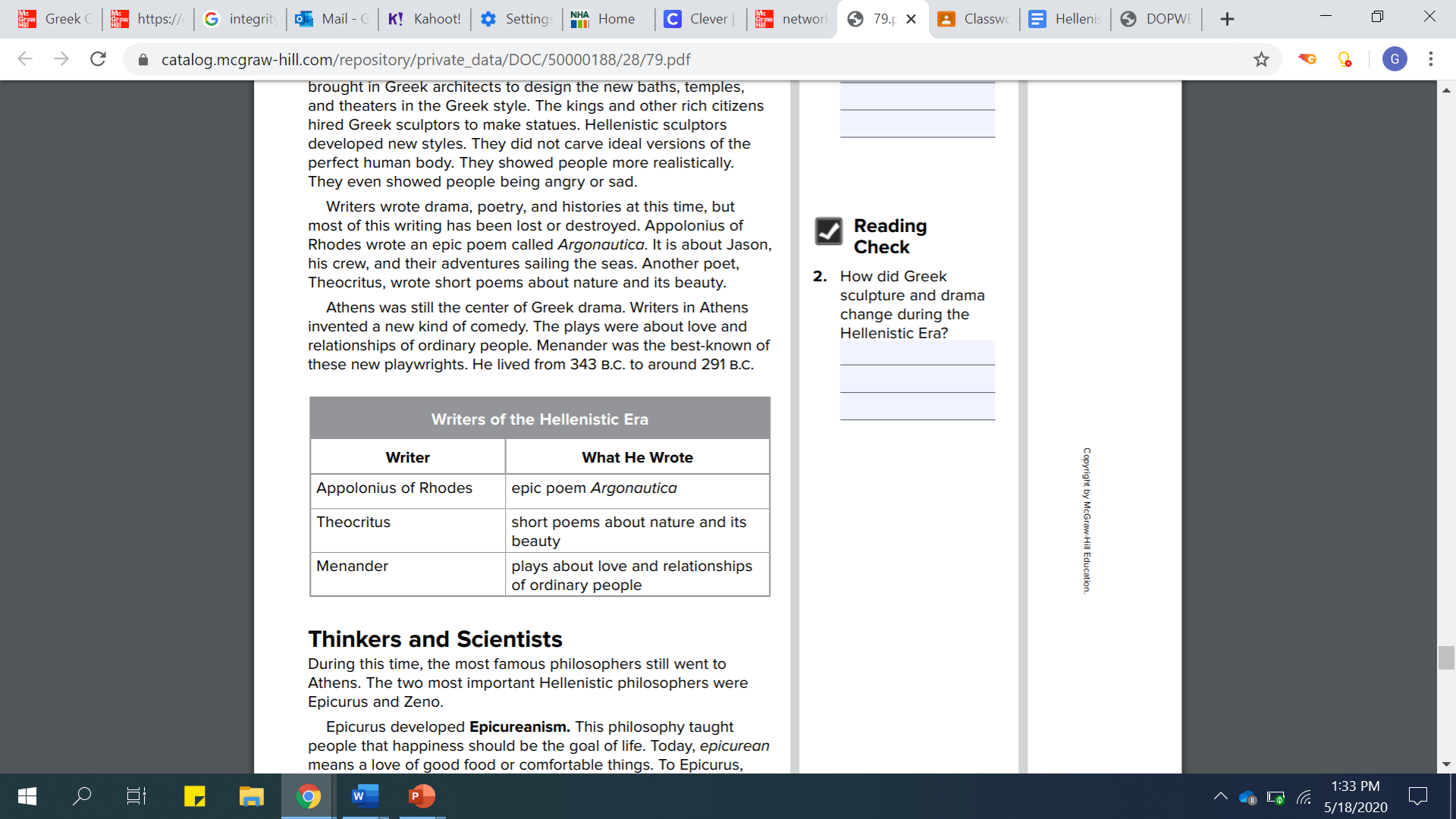
**Hellenistic Arts**

During the Hellenistic Era, scientists, writers, philosophers, and poets moved to the new Greek cities in Egypt and Southwest Asia. Many came to use Alexandria’s library. It had more than 500,000 scrolls. Alexandria also had a museum that brought people to study and do research.

The Hellenistic kings built new cities and rebuilt old ones. They brought in Greek architects to design the new baths, temples, and theaters in the Greek style. The kings and other rich citizens hired Greek sculptors to make statues. Hellenistic sculptors developed new styles. They did not carve ideal versions of the perfect human body. They showed people more realistically. They even showed people being angry or sad.

Writers wrote drama, poetry, and histories at this time, but most of this writing has been lost or destroyed. Appolonius of Rhodes wrote an epic poem called Argonautica. It is about Jason, his crew, and their adventures sailing the seas. Another poet, Theocritus, wrote short poems about nature and its beauty.

Athens was still the center of Greek drama. Writers in Athens invented a new kind of comedy. The plays were about love and relationships of ordinary people. Menander was the best-known of these new playwrights. He lived from 343 B.C. to around 291 B.C.



**Thinkers and Scientists**

During this time, the most famous philosophers still went to Athens. The two most important Hellenistic philosophers were Epicurus and Zeno.

Epicurus developed **Epicureanism**. This philosophy taught people that happiness should be the goal of life. Today, epicurean means a love of good food or comfortable things. To Epicurus, happiness meant spending time with friends and not worrying.

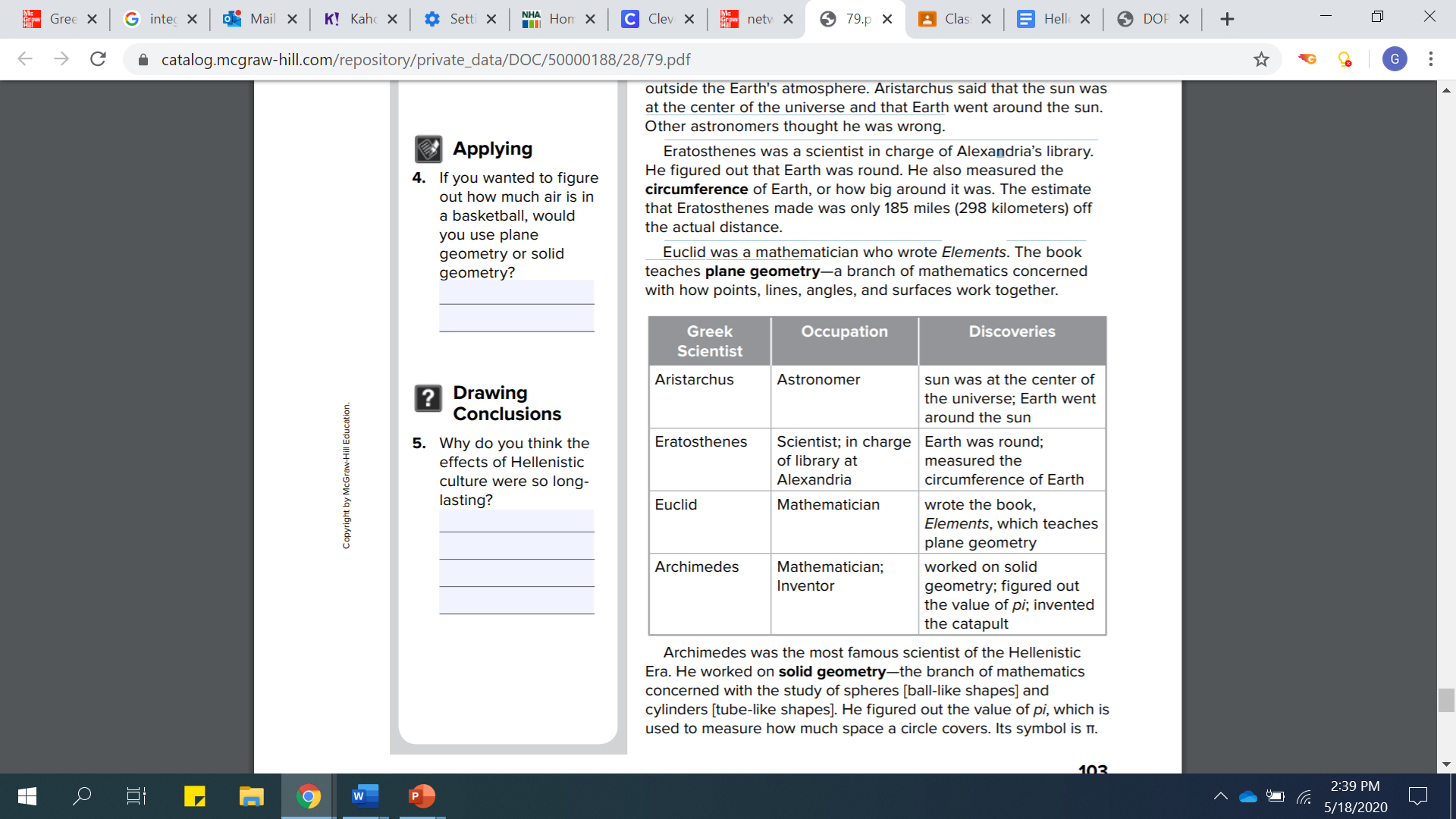
A thinker named Zeno developed **Stoicism**. Stoics believed that happiness came from following logic and reason. Emotions, like anger or sadness, caused problems. Today we call someone a stoic if they do not seem to be affected by joy or sadness. Stoics also believed that people were happy when they did their duty to the community. Science flourished during the Hellenistic Era.

Scientists of that time had only simple instruments, but they performed experiments and made discoveries. Aristarchus was an astronomer. Astronomers study stars, planets, and other objects outside the Earth's atmosphere.

Aristarchus said that the sun was at the center of the universe and that Earth went around the sun. Other astronomers thought he was wrong.

Eratosthenes was a scientist in charge of Alexandria’s library. He figured out that Earth was round. He also measured the **circumference** of Earth, or how big around it was. The estimate that Eratosthenes made was only 185 miles (298 kilometers) off the actual distance.

Euclid was a mathematician who wrote Elements. The book teaches **plane geometry**—a branch of mathematics concerned with how points, lines, angles, and surfaces work together.



Archimedes was the most famous scientist of the Hellenistic Era. He worked on **solid geometry**—the branch of mathematics concerned with the study of spheres [ball-like shapes] and cylinders [tube-like shapes]. He figured out the value of pi, which is used to measure how much space a circle covers. Its symbol is π.

Archimedes was also an inventor. He invented the catapult, a war machine that hurled rocks, arrows, and spears at the enemy. In 212 B.C. the Romans attacked Syracuse. The catapults worked so well that it took the Romans three years to capture Syracuse. Finally, the Romans got inside the city walls. They massacred most of the people, including Archimedes.

Hellenistic thinking and culture had long-lasting effects. More than 700 years after the Hellenistic Era, the mathematician Hypatia lived in Alexandria. Like the earlier Greeks, she studied philosophy and mathematics. She believed in the use of reason instead of superstition.

**Greece and Rome**

The four kingdoms that formed from Alexander’s empire often fought wars against each other. Some Greek city-states became independent, but they did not have strong armies. They were not free for very long. Rome was a city-state in central Italy. In the late 200s B.C., Rome conquered all of Italy. The Greeks tried to stop Rome. They supported Rome’s enemies in wars. The Romans won all those wars, though. Soon, Rome gained control of the Greek mainland.

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| **Questions** | **Answers** |
| 1 How did the Hellenistic kings spread Greek culture? |  |
| 2 How did Greek sculpture and drama change during the Hellenistic Era? |  |
| 3 What is Stoicism? |  |
| 4 How were Epicureanism and Stoicism similar?  How were they different? |  |
| 5 If you wanted to figure out how much air is in a basketball, which concept would you use *plane geometry or solid geometry*? Why? |  |
| 6 Why do you think the effects of Hellenistic culture were so long-lasting? |  |
| 7 How did the Greek city-states react to Rome’s growing power? |  |
| 8 People from Greece moved to cities in the Hellenistic kingdoms. List two jobs they did there. |  |
| 9 List two discoveries made in math and astronomy during the Hellenistic Era that are still important to us today. |  |