

Ancient Civilizations

PRELIMINARY RESEARCH



You will investigate different ancient civilizations (e.g., Egypt, Mesopotamia, Greece, Rome, China, and India) and use historical sources to complete your handout.

SECTION 1 Key Facts

Name of Ancient Civilization	
Location (modern-day countries)	
Time period (start and end dates)	
Important Historical Figures	

SECTION 2 Geography & Environment

List 3–5 river/s, sea/s or landform/s and explain their significance to the ancient civilization.

SECTION 3 Mathematicians

List 3–5 mathematicians from this ancient civilization and explain why they were important.

SECTION 4 History & Math

Categories	List 3-5 examples for each category. Provide examples and explain why they were important.
Agriculture	
Water	
Construction	
Astronomy	
Extra	

SECTION 5 *Achievements & Contributions*

Name and/or draw 6 important inventions, buildings, or ideas this civilization developed. Explain why these were important to help not only develop but also sustain societies. You may use components from pages 1 and 2 to support your answers.

1.

2.

3.

4.

5.

6.

MESOPOTAMIA



Information Card

- Name** : Babylonian Scribes
- Who** : Highly educated members of upper class nobility who were trained in reading and writing.
- Math** : Place value, fractions, geometry (volume and area), base-60 number system (e.g. 60 minutes in 1 hour).

MESOPOTAMIA



Information Card

- Name** : Sumerian engineers
- Who** : Architects and engineers who famously build the famous temples called ziggurats.
- Math** : Used geometry and ratios to create structures made from mud brick.

MESOPOTAMIA



Information Card

- Name** : Tapputi-Belatekallim
- Who** : Worked as a perfumer for the palace.
- Math** : Considered the first historically recorded female chemist. She used measurement and quantity.

EGYPT

Information Card



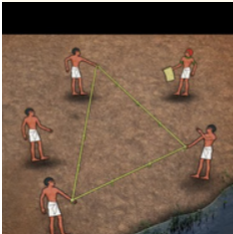
Name : Ahmes (Ahmose)

Who : Pharaoh and scribe who transferred famous mathematical equations from old documents so that other could have access to it.

Math : The papyrus he helped revive included the basis of division and multiplication.

EGYPT

Information Card



Name : Rope Stretchers/ Harpedonaptae

Who : Ancient land surveyors who used geometry and the mapping of the ground to help plan the creation of the pyramids.

Math : Geometry, ratios, angles, proportions.

GREECE



Information Card

- Name :** Pythagoras
- Who :** A greek philosopher and mathematician.
- Math :** Developed the pythagorean theorem which connects the side lengths of right triangles.
$$a^2 + b^2 = c^2$$

GREECE



Information Card

- Name :** Euclid
- Who :** A greek mathematician considered the “father of geometry”
- Math :** Wrote the book, *Elements*, which discussed geometrical proofs and definitions.

GREECE

Information Card



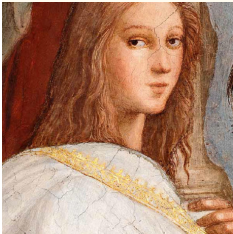
Name : Archimedes

Who : A greek mathematician, engineer, and scientist.

Math : Circles, spheres, and measurement.

GREECE

Information Card



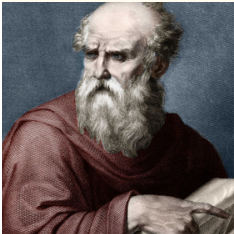
Name : Hypatia of Alexandria

Who : Philosopher, astronomer, and mathematician.

Math : First well documented female mathematician. She was the head of school at a famous institution in Roman Egypt.

ROME

Information Card



Name : Vitruvius

Who : Roman architect and military engineer

Math : He wrote, *On Architecture*, which connected geometric concepts to the study of architecture.

ROME

Information Card



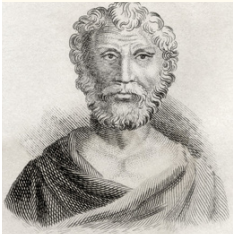
Name : Sextus Julius Frontinus

Who : Roman engineer who studied the aqueduct system, which helped provide water to Rome and is the system we still use today.

Math : Used properties of measurement and geometry to help build the city of rome.

ROME

Information Card



- Name :** Marcus Junius Nipsus
- Who :** Roman surveyor who wrote about geometry and land measurements.
- Math :** Used geometry and measurement to help develop and construct the city of Rome.

CHINA

Information Card



Name : Liu Hui

Who : Chinese mathematician.

Math : Worked with geometry and pi (π), and developed more complex methods for solving volume and area.

CHINA

Information Card



Name : Zu Chongzhi

Who : Chinese mathematician and astronomer.

Math : Developed a more accurate calculation of pi which we are familiar with today.