**The Byzantine Empire**

**Read:** *Science and Technology* (100-102)

**The Byzantine Empire (330 BCE – 1453 CE)**

* Western Rome Falls to The Fall of the Western Roman Empire
* Vandals attacked Hippo in 430 with a force of 80,000 men
* Between 455 CE and 476 CE, different Germanic groups attacked Rome
* In 476 CE, the last Roman emperor in the West was deposed
* This marks the end of the western half of the Roman Empire

**The Eastward Shift of the Empire**

* The Eastern Roman empire continued for 1000 years (Byzantine Empire)
* Marks a shift of the Mediterranean world from the Latin West to the Greek East

**The Byzantine Empire**

* Capital city: Constantinople
* Predominantly Greek
* a synthesis of Roman institutions, Orthodox Christianity, and Greek language and culture

1**. Theodosian Walls\***

**Watch**: “Engineering an Empire: The Byzantines” (12 – 21 minutes, see youtube link below)

<https://www.youtube.com/watch?v=QJ0DRhRhAtY>

**Theodosius II (r. 408 – 450 CE)**

* Only 7 years old when he came to the throne
* Theodosian walls (completed 413)
  + Had to build to withstand earthquakes
    - Limestone mortar
    - Alternating brick and stone
  + 447 earthquake worse than any previous
  + 96 towers
  + Triple line of defense:
    - Moat
    - outer wall
    - Main wall
  + Wall protected Constantinople until 1453!

**Protecting the city from water threats**

* Massive iron chain across the Golden Horn
* Floated on wooden logs

2. **Hagia Sophia**

**Watch**: “Engineering an Empire: The Byzantines” (21 – 37 minutes, see youtube link below)

<https://www.youtube.com/watch?v=QJ0DRhRhAtY>

**Justinian (r. 527 to 565)**

* Attempted to reconquer the Western Empire
* Some successes but the gains were short lived
* 542 Plague
* Wars, plague, and building programs bankrupted his empire
* Building program:
  + public works (roads, etc.
  + Hagia Sophia (Church of the Holy Wisdom)

**Hagia Sophia**

* Earthquake in 557 C.E. and dome collapsed in 558 C.E. as a result
* Diameter of dome: 102 ft 6 in
* height from floor level:182 ft 5 in
* smaller than the dome of the Pantheon
* Pendentive

\* We will return to these walls when we discuss the Ottoman Empire. In 1453 they sacked Constantinople and for the first time the wall was breached. It also marks the end of the Byzantine Empire.

**Study Guide for Quiz # 4 and Exam # 1**:

Constantinople Theodosius II

Theodosian Walls chain across the Golden Horn

Justinian Hagia Sophia

pendentive

What were the main characteristics of the Byzantine Empire?

How were the Theodosian Walls built to withstand earthquakes?

What happened the walls of Constantinople in 447?

What were the three lines of defense of the Theodosian Walls?

How did the Byzantines protect Constantinople from water threats?

How did Justinian bankrupt his empire?

How did the Byzantines support the dome?

What happened to the first dome? Why? How was problem fixed?