

# Passages of Man and Word

## Developments in Written Communication (Information for Day 6 and Day 7)

It is hard to imagine a world without writing. Such was the case for prehistoric man, or people living in cultures before writing. As people began to come together and live in towns and cities, a need for a form of record keeping for business and government arose. Officials and priests probably had difficulty remembering who had made donations and what land people owned.

The first systems of writing used pictographs and petroglyphs. A **pictograph** is a *painted* depiction of people, animals and other shapes and forms left on rock surfaces. Early man painted these symbols on cave walls. **Petroglyphs** are *carved* depictions of people, animals and other shapes and forms left on rock surfaces. Messages were also carved and drawn on bones and later on clay tablets. Archaeologists discovered a large number of tablets with pictographic writing in the ancient city of Uruk in Sumeria.

The pictographs used too many symbols. Through repeated use over time pictographs began to look simpler, even abstract. They eventually became “wedge-shaped” and led to another system of writing called cuneiform writing. The word **cuneiform** means, “wedge-shaped”. Cuneiform writing is made of wedge-shaped marks that represent sounds, and could be combined to form words. Cuneiform was usually written with a cut reed or wedge shaped stylus on soft, wet clay. The clay was shaped into “tablets”. The tablets were often dried or baked to make them more durable.

Ancient Egyptians developed a system of writing that also used picture symbols called **hieroglyphics**. The word hieroglyphic comes from the Greek words hiero, which means sacred, and glyph, which means carving. In its earliest use, the writing consisted of simple pictographs to record important events. The system was based on combinations of different uses of the pictures. Some signs stood for entire ideas and others conveyed only sounds. Hieroglyphics had more highly developed phonetic elements than earlier languages. The hieroglyphic script has about 750 signs. Most are pictures of animals, people, plants or objects.

The next major event in written communication was the age of alphabets, which began around 1500 BC. The Phoenicians were a seafaring trading nation who lived near the Mediterranean Sea. They built sturdy trading ships and used them to transport and trade spices, perfumes, grain, wine, papyrus, wine, fabric, wood, ivory, tin, silver, iron, copper, animals, jewelry, and slaves. A need arose for a simple writing system to record inventories, accounts, bills of sale, and other commercial activities. This was accomplished when some unknown Phoenician scribe removed the pictograms and ideograms of existing complex writing systems and was left with only alphabetical symbols. The development of the first **alphabet** had a tremendous effect on mankind. It made written communication faster, easier, and more effective. Later the Greeks and Romans

used the Phoenician alphabet as a basis for their alphabets. The Romans needed a writing system to help them keep better records for church, business, and trade purposes. By 476 AD (thus bringing us into the Middle Ages) the Roman alphabet was established. This progression of events led to the development of our present alphabet.

Another significant accomplishment that occurred around 100 AD was the creation of the bound book by the Romans. Until this time scrolls were used for written communication. They were long, continuous rolls of papyrus sheets attached together. The text was written in columns and the reader unrolled the scroll to read. The ends of the scrolls were tagged with strips of leather or attached to dowels. With the development of the bound book, reading could occur much faster and easier. It saved the reader hours when it came to looking up information. It made it easier to keep written financial and legal records. Books were smaller and easier to carry. The binding of books allowed for a table of contents to be used.

The fall of the Roman Empire occurred soon after the development of the bound book. The tribes that invaded Rome and overthrew the government were barbaric and illiterate. During the Middle Ages, written communication regressed because of the infiltration of these illiterate tribes. As a result very few people could read or write. Picture symbols were used to convey meaning or identity on coat of arms, guild signs, and seals and signet rings.

The symbols on the **coat of arms** were usually of an event, occupation, or outstanding quality in one's life. A herald (editor) was selected to supervise the selection of colors and symbols so no two looked alike. Symbols on the coat of arms made it easier to distinguish friend from foe on the battlefield. They served as marks of identity.

With the growth of towns during the Middle Ages, peasants began to leave the fields. Many settled in the towns and sought work. They developed crafts and trades independent of the feudal system. They eventually banded together and formed groups called **guilds** to control their industry and maintain standards of workmanship. As businesses developed in the towns, the people needed a way of communicating what service or craft could be found at each location. Thus, the creation of guild signs developed. **Guild signs** had symbols of a craft or trade on them so people could locate the services they needed. This was another way picture symbols served as a form of communication during the Middle Ages.

Finally, picture symbols were used as a means of personal identity to sign documents. Families adopted **seals**, or symbolic representations of their heraldry. The seal was sometimes made into a smaller design called a **signet** and engraved into a ring. When the wearer of the signet ring was ready to sign the document, he just turned his hand over and pressed the ring into a small ball of hot wax. This conveyed that he had seen the document.

Scribes performed the only other significant written communication during the Middle Ages. They were some of the few who could read and write due to their religious training. **Scribes** were monks who lived in monasteries. They worked in a special room called the scriptorium. They wrote manuscripts, or books. Because of the prominence of the church, these manuscripts were often religious books or copies of the Bible. Nonreligious books included books about beasts called bestiaries, works of ancient Greek and Roman authors, and romances. It could take a whole day to copy one page, thus the number of manuscripts available was limited. These manuscripts were usually written on parchment or vellum. Production of these manuscripts was specialized. The monks divided the tasks. One group prepared the vellum and another did the writing. A third group decorated the manuscripts with beautifully ornate **illuminations**. These designs, pictures, and decorations were added to make the manuscript more interesting to the reader and to help tell the story. They were done in a variety of colors. Gold or silver leaf was often used on beginning letters and the decoration. Animals, branches with leaves or berries, geometric designs, ornamental letters, braids, and scrollwork were the basic forms of these designs. Upon completion, a final group of monks transported the manuscripts to the library, traded them to other monasteries, or sold them.

Around 1150 AD paper arrived in Spain as a result of the crusades. The first paper industry in Europe was established. The next significant event was the invention of the **printing press** with movable type by Johann Gutenberg around 1450 AD. Needless to say, it made printing of books easier and faster. The printing press greatly increased the amount of information made available for man to read. Its impact is similar to the impact technology and the Internet have had on our society today. This monumental development coincided with the end of the Middle Ages. The printing press would serve as the catalyst to renew written communication during the Renaissance.

### **Developments in Transportation (Information for Day 8 and Day 9)**

**Transportation** is the movement of man and/or goods from one place to another. Man himself was the first beast of burden, sometimes attaching a light yoke to his shoulders to carry his belongings. Next he learned to place his belongings or goods on a framework, possibly made of branches, and dragging them behind him. Sometime near 6000 BC, he began to domesticate animals. Oxen, donkeys, and camels were trained in warm countries. Dogs were beasts of burden in the north. Horses were used in southwest Asia.

An example of man's use of domesticated animals is the camel. There is evidence that single-humped camels were being domesticated as early as 3000 BC. **Camel caravans** played an integral part in early transportation in the vast stretches of Central Asia, North Africa, and parts of the Middle East. Because these regions did not possess many navigable rivers or a network of canals, camels were a primary source of transportation. Camels could travel faster and longer with little food or water than any other pack animal. A camel could endure

from four to nine days without water and could survive much longer without food, getting energy from the reserved fat stored in its hump. During the period from 300 to 1300 AD, caravans could typically carry goods cheaper, faster, and with less chance of seasonal interruption than other forms of land transport. Luxury goods between China, India, the Middle East, and Eastern Europe were transported on these routes. As a result, an exchange of cultural ideas also occurred.

After man's earliest attempts to domesticate animals, the next important development was his attempt to use vehicles with these animals. The sledge was the earliest vehicle. It was made first of hide or tree bark mounted on runners and was usually pulled by draft animals. Later Sumerians made them of wood with a boxlike contraption on top – ancestor to the four-wheel wagon. The slide car, an early version of the travois, was another means of transportation in ancient times. Two poles were tied to one or two animals at one end, with the other end, carrying the load, dragging behind.

Around 3000 BC the wheel was invented. The first wheels were rough discs of wood that were cut from tree trunks. This really changed things. By this time other versions of the travois had developed which were shaped like a platform. The actual contact with the ground had been greatly reduced. Only the ends of the poles supporting the platform dragged along the surface. This is where the friction was greatest. Placing a revolving wheel at the end of each of the dragpoles greatly improved the device. This was the forerunner to the two-wheel cart.

Increased use of carts, wagons, and other wheeled vehicles led to a need for roads. Roads helped the spread of goods, innovations, and ideas. The Romans were great road builders. **Roman roads** were built primarily for military purposes, so the Roman Empire could be easily defended. Roman officers traveled on horseback carrying communications and supplies. The Roman army had stations along the way at which an officer could exchange a tired horse for a fresh mount. The Roman roads were well constructed and could shed water during the rainy season. This permitted travel at a rapid pace during all kinds of weather. Roman road development reached its peak around 200 AD. Many of these roads are still in existence today.

During the early Middle Ages little advancement in land transportation occurred. Due to the establishment of the feudal system, people moved less frequently over shorter distances. The roads established by the Romans began to deteriorate, thus making land transportation less pleasant and costly.

One exception was the advancement of harnessing of draft horses. Improved harnessing allowed for one horse to do the work of two. Shafts were added which allowed the horse to use its chest to pull the wagon. The amount of distance covered rose to 15 - 20 miles a day. Also during this period, the Celts improved the pivoting front axle making steering of wheeled vehicles more manageable.

## Sea transportation

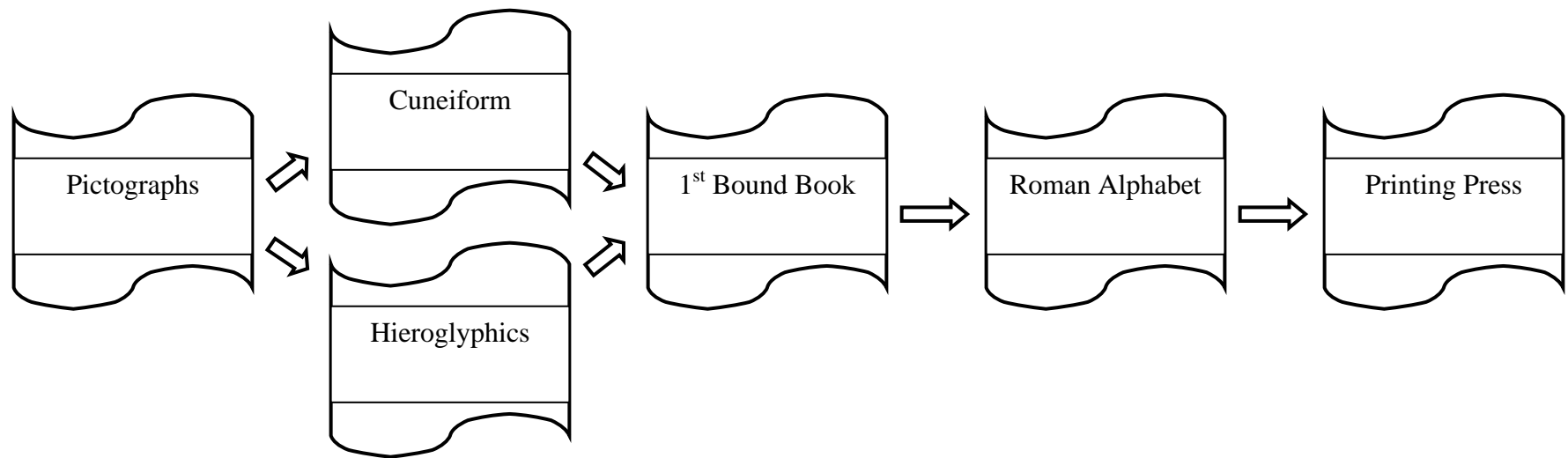
Though the Phoenicians were among the first peoples to venture out into the sea in search of trade, for the purpose of our study about the Middle Ages we will focus on the contributions of the Vikings. The **Vikings** were Nordic peoples - Danes, Swedes, and Norwegians. In a typical Viking town, there would be traders and craftsmen. Beyond the town's limits would be many Scandinavians living on scattered farms. They lived off the land growing crops and raising cattle and sheep. Over time some farmers were more successful than others. The more successful farmers became chieftains. A chieftain's power and authority was proportional to his ability to provide for the people who followed him. The struggle for power amongst chieftains increased in the early years of the Viking Age due to an increase in population and an increase in the number of chieftains. Simultaneously, the Vikings' contact with other lands was increasing. The Viking sailors visited thriving ports and experienced new products and ideas. A lot of money was generated from the trade of these new items. This led to an unstable society in which more people were trying to become chieftains. Due to this atmosphere in the Scandinavian countries, some chieftains found sea exploration mighty enticing. They wanted to set out for adventure and seize any wealth they could even if it was by force. This movement led to the Viking raids throughout Europe during the Middle Ages. The Vikings raided and settled in large areas of eastern and western Europe from about 800 to 1100 AD. The advancement that enabled the Vikings to become fierce explorers was the **longship**. The longship was a technological achievement, which surpassed anything Europe had experienced. It had a simple design. It was easily maneuvered with a single side rudder. It was sleek, smooth, and streamlined. It was more than 118 feet long and would have needed a crew of about 100 men, with 40 oars on each side. Longships were extremely low and light for their length. This made them easy to land on a beach and then push off with little effort. With the help of their longships, the Vikings had a significant impact during the Middle Ages. They introduced the idea of long distance trade. As a result of their raids, new trade markets were opened. The spread of commerce increased throughout Europe.

Another significant advancement in Europe during the Middle Ages was the invention of the **magnetic compass**. Sometime in the 12<sup>th</sup> century, mariners in both China and Europe discovered that a naturally occurring magnetic ore called lodestone, when floated on a stick in water, tends to align itself so as to point in the direction of the polestar. Shortly thereafter another discovery occurred: an iron or steel needle touched by a lodestone for long enough also tends to align itself in a north-south direction. Knowing which way is north enabled mariners to determine other directions. The magnetic compass greatly enhanced navigation. It made it possible for sailors to follow longer, more complicated routes. It made sea travel safer and more effective in moving large cargoes.

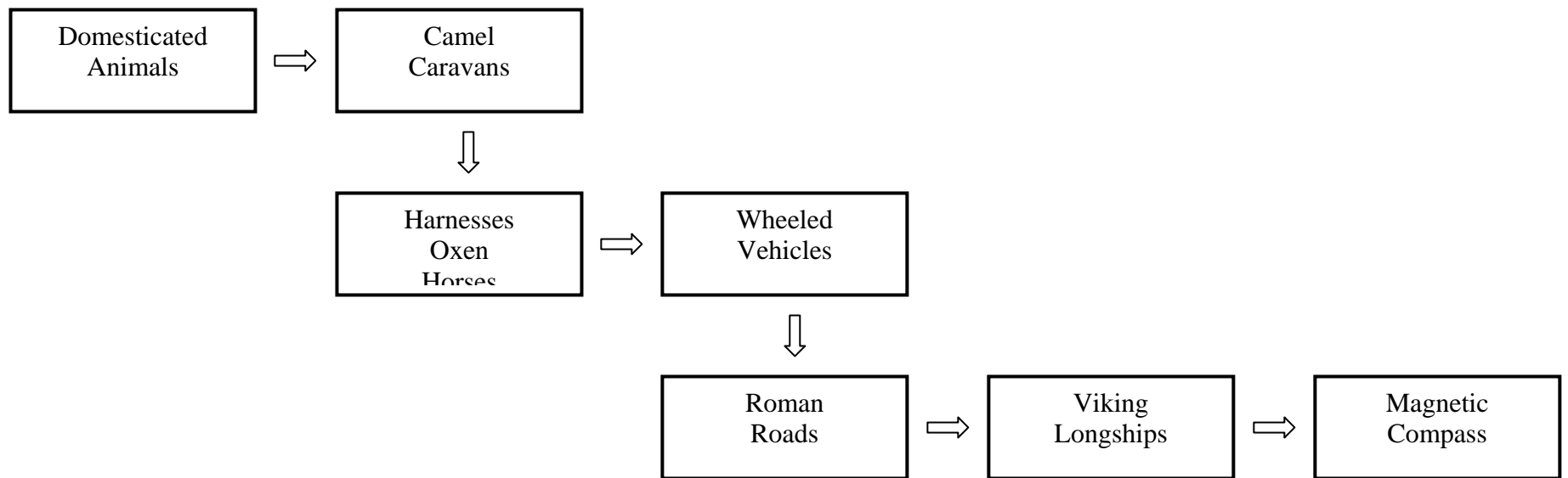
## Literature Links:

Erik of the Dragon Ships, Abraham, Norma J., Windsong Graphics, 1984.  
Hiccup, the Seasick Viking, Cowel, I Cressida, Orchard Books, 2000.  
The Hottest Boy Who Ever Lived, Fienberg, Anna, Albert Whitman & Co., 1994.  
One Norse Town: The Case of the Suspicious Scrolls, Warner, Justin, McGraw Hill Professional Publishing, 1997.  
Viking Ships at Sunrise, Magic Tree House, Osborne, Mary Pope, Random House, 1998.  
Who Were the Vikings?, Starting Point History Series, Chisholm, Jane, EDC Publications, 1995.  
Seeker of Knowledge: The Man Who Discovered Egyptian Hieroglyphs, Rumford, James, Houghton Mifflin, 2000.  
Write Around the World, French, Vivian, Larousse Kingfisher Chambers, 1998.  
At the Beach, Lee, Huy Voun, Henry Holt & Co., 1998.

## Selected Developments in Written Communication

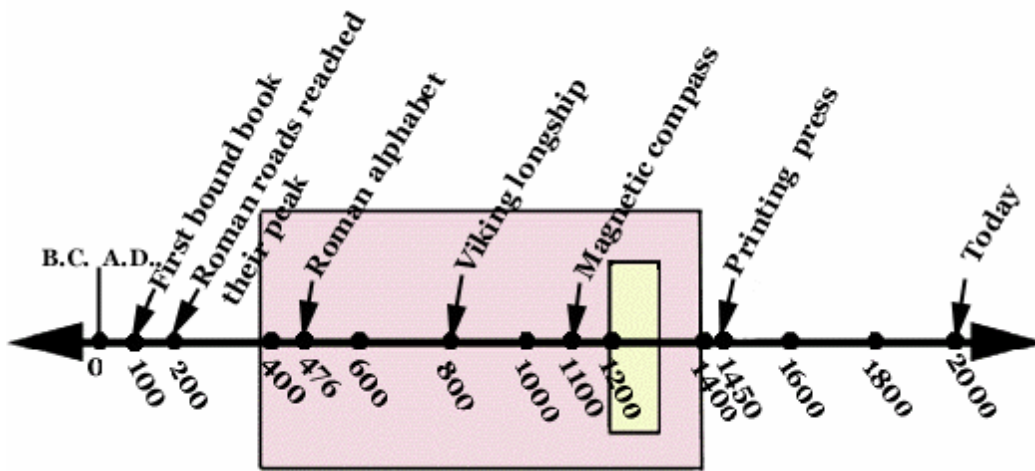


## Selected Developments in Transportation





### Timeline #4 Developments in Written Communication and Transportation



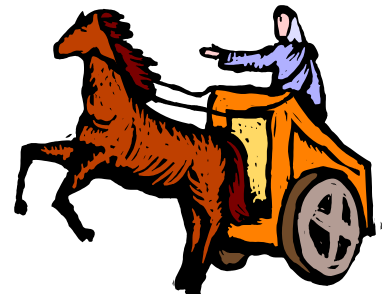
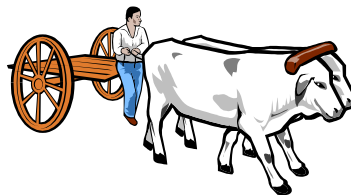
## Graphics for Passages of Man and Word

The following graphics can be used as posters, writing starters, or to create interest and an atmosphere for learning about developments in transportation and written communication. Clicking on the graphic, then pulling the bottom right corner in a diagonal direction can enlarge any of these graphics. All graphics have had the copyright researched and are free for your use.

1. The **camel** was one of the first domesticated animals used in warm countries to transport man and goods.



Some other examples of **domesticated animals**, a **cart**, and a **chariot**.



\*An early wheeled-plow graphic is also available in the downloadable file from Lesson 2 of this unit.

A camel caravan moves along.



Viking longships sailed the seas.



Viking voyage routes



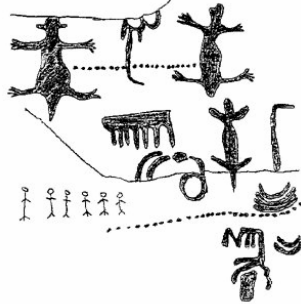
A Viking



A modern **magnetic compass**



Early man used **pictographs** to communicate.













This is the Ugaritic **cuneiform** writing system that was used in the city of Ugarit in western Syria around 1300 BC. Clay tablets written in this system provided the first evidence of the modern ordering of letters.

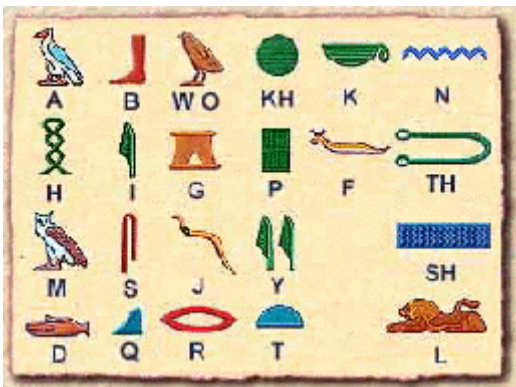

This graphic was originally created by Lawrence Lo and used with his permission; <http://rabbitmoon.home.mindspring.com/asw/>

The Egyptians developed a form of writing called **hieroglyphics**.

### Egyptian Hieroglyphics

				
arm	hand	reed leaves	water	basket
				
cobra	arm	bread	knotted rope	mouth

Used by permission from the University of Pennsylvania Museum of Archaeology and Anthropology, [www.upenn.edu/museum](http://www.upenn.edu/museum).



Another example of hieroglyphics. Used with permission from Mark Millmore, [mark@emailartcards.com](mailto:mark@emailartcards.com)

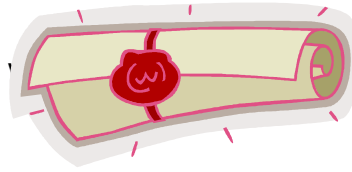
During the Middle Ages people used wax **seals** to fasten their letters and other documents. The seals usually bore the symbol of the writer's **signet ring**.

seal



signet ring

scroll



**Scribes** copying manuscripts during the Middle Ages.



An example of an **illumination** from a Gutenberg Bible.





More examples of illuminations.



Printing press



Guild sign



## **In Days of Old Student Information Checklist**

### **Lesson One and Two**

**(In Days of Old, Travel Back in Time and Kings, Knights and Countrymen)**

#### **Day One**

- A timeline is used to show when events in history happened.
- The Middle Ages lasted from year 400 until about 1400.
- We can find out about the Middle Ages from many different sources.

#### **Day Two**

- Feudal Government
- The Manor
- The Power Pyramid

#### **Day Three**

- Noble
- Kings, Lords, Knights, and their families
- Dress, home, food, work, play
- Coat of Arms

#### **Day Four**

- Peasant
- Serf
- Dress, home, food, work, play

#### **Day Five**

- Summative #1

### **Lesson Three**

**(Passages of Man and Word)**

#### **Day Six**

- Pictographs
- Cuneiform
- Hieroglyphics
- 1<sup>st</sup> Bound Book
- Roman Alphabet
- Printing Press
- Coat of Arms
- Guild Signs
- Seals, Signets

#### **Day Seven**

- Illuminations
- Scribes

#### **Day Eight**

- History of Transportation
- Roman Roads



**Day Nine**

- Viking Longships
- Magnetic Compass

**Day Ten**

- Summative #2

**Lesson Four****(Times Are Changing)****Day Eleven**

- Scientific Achievements
- Parchment Paper
- Magnetic Compass
- Printing Press
- Gun Powder

**Day Twelve**

- Technological Achievements
- Tools
- Weapons

**Day Thirteen**

- Cultural Achievements
- Troubadour
- Gothic Architecture
- Stained Glass
- Intellectual Achievements
- Printing, Bookbinding
- Magnetic Compass

**Day Fourteen**

- Trade led to exploration
- Magnetic Compass
- Vikings
- Marco Polo
- The Crusades

**Day Fifteen**

- Summative Assessment #3

**Day Sixteen**

- Summative #4