Title:
Class 9: The Equestrian Age

Topics (CHAPTERS – Video lectures):
Class 9. Introduction Video
Chapter 1 Video. The Ancient Steppes – Uzbekistan
Chapter 2 Video. Hegra – Saudi Arabia
Chapter 3 Video. Jabal Ikmah – Saudi Arabia
Chapter 4 Video. Spanish Riding School – Austria

Subject/Course: Civics, History, Geography, Religion, Ethics, Social Studies
Grade: Secondary School Level

The Ages of Globalization book reference chapters:
Download your free copy of the AOG book here.

Timeline of Historical Events

Stage 1 – Desired Results

In this section, you will find a detailed framework that outlines the overall learning goals, the enduring understandings, attitudes and values students will develop, essential questions students should be able to formulate and/or to provoke deep thinking and discussion, and specific learning outcomes that emphasize both knowledge and skills.

Established Goals:

Summary/Overarching:

Learners will explore how the period from 3000 to 1000 BCE was a transformative era for the major civilizations of Eurasia, laying the groundwork for the larger empires that emerged in later ages. They will examine the key technological breakthroughs of the Equestrian Age, including (a) the domestication of the horse, (b) the development of writing systems, and (c) advances in metallurgy. These innovations were accompanied by significant progress in public administration, religion, and philosophy, particularly in the Fertile Crescent, which is located in the modern-day Middle East.

Enduring Understandings:

Students will

- Understand that major civilizations of Eurasia laid the groundwork for the larger empires that emerged in later ages.
- Appreciate the significance of the technological breakthroughs during the Equestrian Age.

Essential Questions:

- In what ways has the horse played a role in the development of Eurasia as a major civilization and in contributing to the rise of empires?
- How do geographical conditions, as well as human activity, affect technological advancements (in this case, during the Equestrian Age, the growth and development of animals)?

Students will know...

- ⬐ The natural habitats of horses, donkeys, camels, and camelids (e.g., llamas), as well as the factors influencing their distribution.

- ⬐ The limitations of these habitats, including the impacts of climate and disease.

- ⬐ The extinction of the horse in the Americas and its implications.

- ⬐ Why the domestication of the horse was a ground-breaking technological advancement, supported by archaeological evidence.

- ⬐ The interactions and relationships between horse-rearing and non-horse-rearing societies (e.g., China), including the influence of these dynamics on cultural and political development.

- ⬐ The role of the steppes and agricultural regions in the rise of states and the development of early civilizations.

Students will be able to...

- ⬐ Discuss the role animals (ie. horses) played in their part of the world and for the benefit of human activities.

Stage 2 – Assessment Evidence

In this section, you'll find key concepts and definitions essential for understanding the course material as well as activities, such as Vocabulary Flashcards, Check-Your-Facts and Fill-in-the-Blank to enhance your students' comprehension and retention. You can adapt these activities to suit various subjects and grade levels.

Concepts & Definition

Familiarize yourself with the provided terms, such as "Lucky Latitudes," "Copper Age" and others. Understanding these definitions will help you effectively teach the material and connect it to your lessons.

Vocabulary Activity

Create physical flashcards for each term. This hands-on approach helps reinforce terminology and aids in building a solid foundation of knowledge. Encourage students to use these flashcards for review and practice.

- ⬐ **Lucky Latitudes:** are what historians have called the band of largely temperate zones in the Eurasian region (stretching over 10,000 kilometers from Europe to China). This area has been distinctly the most prosperous and technologically dynamic part of the world throughout history. Thousands of years ago

– around 3000 BCE – it was home to the world's first urban settlements. In these regions, agriculture was so productive that a portion of the population could grow enough food to sustain non-agricultural settlements, specifically urban areas (AoG).

- ⬐ **Steppes:** are what geographers classify under climate zone code BS. These regions are semi-arid but not deserts and provide abundant energy input in the form of grass, making them ideal for raising animals such as horses. This climate zone accounts for around 10.8 percent of Eurasia's land area. (AoG)

- ⬐ **Domestication:** is what scientists describe as the process of adapting wild plants and animals for human use (National Geographic).

- ⬐ **Extinction:** is what biologists define as the dying out or extermination of a species. Extinction occurs when species are diminished because of environmental forces (habitat fragmentation, global change, natural disaster, overexploitation of species for human use) or because of evolutionary changes in their members (genetic inbreeding, poor reproduction, decline in population numbers) (Britannica).

- ⬐ **Yamnaya People:** are what historians consider to be perhaps the first major horse-based society in Eurasia. (AoG)

- ⬐ **Copper Age:** is what archaeologists identify as the period commencing around 4000 BCE, although

copper ornaments are known from earlier millennia. Copper is widely accessible in elemental form and can be melted at relatively low temperatures. (AoG).

- ◣ **Bronze Age:** is what historians mark as beginning around 3300 BCE in the Near East, the Indus Valley, and the Yellow River valley. The Bronze Age emerged with the discovery of copper-tin alloy, though the scarcity of tin – found in only a few accessible deposits in the Fertile Crescent – required long-distance transport from regions such as Western Europe (Germany, Iberia) and Central Asia along the Silk Road (AoG).

- ◣ **Iron Age:** is what archaeologists date as commencing around 1500 BCE. Iron, superior to bronze in strength per unit weight, is also more abundant than tin. However, iron requires very high temperatures for melting, necessitating vast amounts of energy, which initially limited its large-scale production (AoG).

Check-Your-Facts / Review Questions

Utilize this activity to promote critical thinking by having students verify and analyze information related to the concepts and definitions.

1. **In what ways did horses profoundly impact human civilizations and globalization?** (Horses offered unparalleled transport services, powered agriculture, enhanced military capacity, enabled rapid communication, facilitated long-distance travel, and supported the governance of large areas under unified states.)

2. **When did the domestication of horses occur?** (The domestication of horses largely took place around 3000–4000 BCE.)

3. **Where was the natural habitat of horses?** (Horses originated in the Eurasian steppes, a region with abundant vegetation capable of sustaining horse populations.)

4. **What prevented horses from spreading to certain regions of the world?** (Factors such as climate, disease, hunting, and extinction hindered the presence of horses in certain regions.)

5. **What do paleo-geneticists suggest about the genealogy of Europe's population?** (Paleo-geneticists propose that much of Europe's population reflects the admixture of two groups: early farmers from Anatolia and the Yamnaya people, who themselves were a mix of hunter-gatherer populations.)

Fill-In-The-Blank

Incorporate this activity to assess students' understanding of key concepts and historical periods. Provide a word bank to support their learning and check their grasp of the material.

1. Natural environment such as climate and geography, as well as human activities affected the existence and growth of animals in certain regions of the world:

   a. The domestication of animals occurred almost exclusively in **(Eurasia)** and **(North Africa)**, with the African tropical environment proving extremely harsh for many farm animals as well as the tropical **(diseases)**.

   a. The hunter-gatherers of North America killed off the wild horse and other megafauna; as a result, the only surviving candidates for domestication were the two camelid species of the high Andes **(the llama and the alpaca)**, the turkey, the Muscovy duck, and the guinea pig. Therefore, the early extinction of the horse in North America was a significant loss to Amerindian civilizations. The Amerindians did not encounter the horse again until the late 15th century, brought by Spanish conquistadores.

2. AoG author's summary of The Horse in Human History (Kelenkna, 2009) comparing Eurasia and the Americas:

Dimension of social life	Americas - without the horse	Eurasia - with the horse
Agriculture	American steppes - prairies and pampas - remained mostly undeveloped and unpopulated	Adoption of agriculture throughout the steppes, intensification in the **(temperate zones)**

Metallurgy	Little transport of metals, very slow **(uptake)** and diffusion of metallurgy	Long-distance **(transport)** of metals, more rapid diffusion of metallurgy
Trade	**(Short-distance)** trade	Long-distance trade, with horse-based trade encouraging other modes as well, such as canal building
Diffusion of ideas and inventions	Little diffusion of **(technologies)** such as writing, counting devices, arithmetic - role of zero	Extensive diffusion of technologies, including alphabets, arithmetic, use of the wheel

Warfare	Small polities, governed as confederations	Large **(empires)**, secured by horseback
Religion	Little diffusion	**(Long-distance)** diffusion
Language	Little linguistic **(interaction)**	Long-distance linguistic interaction

Source: Data from Pita Kelenkna, The Horse in Human History. Cambridge: Cambridge University Press, 2009.

Stage 3 – Learning Activities

In this section, you will find the different learning activities associated with this specific Class. We recommend that you begin by watching the lecture videos as a basis for the course and as a primary element for the course content. Interactive reference maps are mentioned in the lectures and activities.

Lecture Videos

Class 9. Introduction Video
Chapter 1 Video. The Ancient Steppes – Uzbekistan
Chapter 2 Video. Hegra – Saudi Arabia
Chapter 3 Video. Jabal Ikmah – Saudi Arabia
Chapter 4 Video. Spanish Riding School – Austria

Reference Maps

https://sdgstoday-sdsn.hub.arcgis.com/pages/aog-class-9

Chapter Summaries

In this section, you can find a summary of this Class for your reference. Chapter summaries provide insight into the era discussed in each class period. Should you have issues watching the videos, e.g. due to internet bandwidth, the summaries provide some of the key insight you can build on.

- Eurasia, benefiting from scale, long-distance trade, and technological innovation, saw pivotal development facilitated by the horse for over 5000 years.
- Horse domestication around 5500 years ago led to the rise of the first empires in Eurasia, marking the Equestrian Age as the third age of globalization.
- The steppes of Asia served as crucial regions in Eurasian history, providing energy and acting as long-distance highways.
- Animal domestication, starting with the dog in the Paleolithic Age, continued over millennia, with horses being domesticated around 3500 BCE in the western Eurasian steppes. The African wild ass was also domesticated around 5000 BCE in Nubia, while donkeys played a crucial role as pack animals in arid lands.
- The absence of large domesticated animals in the Americas until the Columbian Exchange limited their development.
- Camels, llamas, and alpacas played vital roles in desert regions, with domestication occurring later than horses.
- Advances from the Neolithic to the Equestrian Age included the Metal Ages, with copper, bronze, and iron being crucial for tool and weapon development.
- The Yamnaya people, one of the first major horse-

based societies in Eurasia, migrated westward, influencing Corded Ware culture.
- Comparing Eurasia and the Americas highlights the impact of horses on various aspects of development, including agriculture, metallurgy, trade, warfare, and language.
- Hypotheses suggest migrations from the western steppes and Anatolia influenced the spread of horse-related technologies and Indo-European languages.
- The Eurasian steppes were regions of low population density but fierce, horse-based warrior societies, influencing early equestrian empires.
- The period from 3000 to 1000 BCE witnessed significant advancements in the Fertile Crescent, including breakthroughs in agriculture, writing, public administration, and trade.
- Unified kingdoms, like Egypt and Sumer, emerged around 3000 BCE, with various dynasties ruling Egypt and Mesopotamia.
- Fertile Crescent civilizations achieved breakthroughs in various fields, contributing to the emergence of city-states and larger political units.
- Chariots and cavalry became integral to Near Eastern military strategies around 1500 BCE, with horses and donkeys playing crucial roles in trade.
- By 1000 BCE, numerous urban centers had emerged across Eurasia, mainly in favorable latitudes, indicating significant development during the period.
- The Equestrian Age, characterized by horse domestication, marked transformative advancements in Eurasian civilization, setting the stage for large land empires in the Classical Age.

Activities

In this section, you can find a range of interactive activities involving graphics, community engagement and a capstone project, designed to engage students in exploring

geographic, historical, and environmental concepts. These activities foster critical thinking and help students connect personal and community experiences with larger global

patterns, encouraging them to take positive action in their schools and communities. You can use these activities in their entirety or select certain sub-sections, use them as in-class activities or assign them as homework or both, providing you with additional materials to help students showcase their understanding of the desired learning outcomes. For the maps, you can work with [ArcGIS](#) to develop these maps or you can use your own maps.

Graphics Activites (Map, Data, Diagrams)

Activity: "Mapping the Equestrian Age: Key Developments" (60 minutes)

Students will explore the major innovations of the Equestrian Age, focusing on the domestication of animals, the development of metallurgy, and the origins of language and writing systems. This activity integrates historical analysis with spatial visualization and critical thinking about data reliability.

Preparation for the activity (10 minutes)

Looking at the [reference maps](#) and before starting the mapping exercise, guide students through understanding the origins, collection methods, and reliability of the data they will use. Facilitate a class discussion using the following prompts:

- Who produced this data?
- Examine data sources such as historical records, archaeological findings, and scientific publications.
- How was the data collected?
- Discuss methods like satellite imagery, sediment analysis, or historical texts used to determine key developments during the Equestrian Age.
- What type of data is this?
- Identify whether the data is qualitative (descriptive) or quantitative (numerical). Discuss why each type is important for understanding historical trends.

Mapping Directions (40 minutes)

Using the [reference maps](#), ask your students to create layered maps to visualize key developments.

Step 1: Domestication of Animals

- Create a sketch layer marking regions where animals like horses, camels, and donkeys were first domesticated.
- Use points or polygons for each area, and assign different colors for each species.
- Example: Use red for horse domestication regions, blue for camels, and green for donkeys.

Step 2: Origins of Language and Writing Systems

- Add another layer to indicate the emergence of major languages and writing systems (e.g., cuneiform, hieroglyphs).
- Use distinct shapes or symbols for each writing system and apply pop-ups to include additional details (e.g., approximate dates, cultural context).

Step 3: Spread of Metals

- Create layers to show the diffusion of metals like bronze and iron across regions.
- Use lines or polygons to illustrate the routes of metal trade and the areas where metallurgy began.
- Example: Highlight the Fertile Crescent for early bronze metallurgy and use dashed lines to show trade routes.

Step 4: Visualization Techniques

- Customize the map's appearance:
  - Assign specific colors, shapes, and sizes to differentiate sketch layers.
  - Use pop-ups to include relevant information for each layer, such as dates, materials, or cultural significance. (For guidance, refer to [Styling a Map](#).

Map Analysis (10 minutes)

Guide students to analyze their completed maps and discuss the following questions:

1. Patterns and Trends:
   - What patterns can you observe regarding the domestication of animals, the spread of metals, and the emergence of writing systems?

2. Data Interpretation:

- How does visualization enhance your understanding of the interconnectedness of ancient civilizations?

3. Reflection on Data Sources:

- How does knowing the origins of the data influence your trust in the map's accuracy?
- Are there any limitations or gaps in the data that you noticed during the activity?

Encourage students to identify the ways in which these developments contributed to larger global patterns of innovation, trade, and cultural exchange.

Journal Activity

Encourage learners to reflect deeply on the historical and local significance of animals and transportation in their communities. Provide the following prompts for journaling:

1. Animals and Society:

- Identify an animal species that has significantly impacted human activity in your region (e.g., horses, camels, donkeys).
- What role did this animal play in shaping societal or economic development?
- How do these roles compare to the uses of animals in the Equestrian Age?

2. Transportation and Sustainability:

- How does transportation in your community reflect historical patterns of development?
- What types of transportation are most commonly used (personal, public, or non-polluting like cycling or walking)?
- What changes could improve sustainability in your community's transportation system?

Community Engagement & Student Action Considerations & Capstone Project

1. Research Local Transportation Systems:

- Study the current modes of transportation available in your community and their environmental impact.
- Survey local community members to understand attitudes toward public and sustainable transportation.

2. Promoting Sustainable Transportation:

- Identify challenges and opportunities for increasing public transit or non-polluting transportation use in your area.
- Propose actionable solutions, such as awareness campaigns, community bike-sharing programs, or better pedestrian infrastructure.

Capstone Project

As a culmination of this unit, students will design a project that addresses transportation and sustainability challenges in their community. Steps:

1. Review the 17 Sustainable Development Goals (SDGs).

2. Select one or more SDGs relevant to transportation in your locale (e.g., SDG 11: Sustainable Cities and Communities, SDG 13: Climate Action).

3. Develop a project plan that:

- Identifies specific transportation challenges.
- Proposes realistic solutions (e.g., community-based initiatives or policy recommendations).
- Engages local stakeholders, such as schools, city councils, or community groups.

4. Present your project proposal to peers, teachers, or community members to gather feedback and refine your ideas.

*Wiggins, G., & McTighe, J. (2005) Understanding by design (2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development ASCD