Group Research on Non-Greek Science

Assignment: This week you will work in groups of 3 or 4 to investigate science in a particular society and examine how the scientific theories and concepts from that time interacted with and were shaped by that society. We ask that you avoid researching a "modern" (post 1400) science, as we will be covering many of those later on this year. By the end of the project your group will create a poster and make a formal presentation to the class.

Guiding Questions:

1) How was *this culture's* model of the universe coherent for *that* society at *that* time?
2) What assumptions did each society make in order to create a coherent model to understand their natural world?

Possible Topics: Please note that this is a partial list of *possible* topics that you can pursue. If there's a topic that you and your peers come up with, please share with your teacher for approval.

- Tibetan medicine
- Mayan cosmology
- African science
- Chinese acupuncture
- Science of the Islamic empires: optics, medicine, geometric art or algebra
- Qin dynasty: standardization of weights and measurements
- Han Dynasty inventions: papermaking, compass, printing, gunpowder
- Medieval Islamic astronomy, astronomy or medicine
- Navigation of the early Ming Dynasty
- Egyptian embalming and other sciences
- Medieval European medicine or science

Expectations of Presentation:

- 4-7 minutes
- You may use notecards for reference, but do not read straight from them.
- Clear public speaking - you may want to practice.
- Poster and bibliography are the only thing your group hands in.

Grading: Your group will be graded on:

- Quality of research.
- Ability to convey connections between science and the society.
- Presentation skills.
- Quality of poster. Your poster should:
    - Be visually appealing.
    - Include a detailed bibliography.

Day 1 - Wed, Sept., 21: Setting up Goals & Expectations (in library)

By end of the day, each group will have:

1. Defined a culture and a field of science to explore (to hand in)
2. Found at least two reputable sources (to hand in)
3. Each student has posed two questions, one open-ended and one closed-ended, about what they would like to know more about their science, culture, or both. (to hand in)

HW, due on Friday, 9/23:

Research your two questions and come in with information to share with your group.

Day 2 - Friday, Sept. 23: Research (in classroom 424 with laptops)

By end of the day, you should have…

1. Made a link between science practiced and a single aspect of culture (religion, art, politics, trade, economics,, etc…)
2. Determined how this science was practiced and supported in this culture in this time
3. Determined how the culture responded to and was shaped by the practiced science (summary for #1-3 to hand in)
4. Found at least one more reputable source (total of 3 needed, to hand in)
5. Create a rough outline of your poster and presentation (to hand in)

HW, due Monday, 9/26: Further research and clarification of project, as needed. (Most of 3rd day will be devoted to producing final product).

Day 3 - Monday, Sept 26: Research (meet in library)

By end of the day, you should have…

1. Nearly completed presentation and poster
2. Answered any lingering questions you may have about your culture and science
3. Have created a detailed bibliography (to hand in)

HW, due 10/1: Prepare final presentation and poster for Tuesday

Day 4 - Tuesday, Sept 27: Group presentations

-Presentations should include posters.

-Audience needs to pay attention with an eye towards HW (below).

Reflection HW:

Reflect on one connection between your topic and a topic from a peer-group. This could be a similarity or difference. What's the takeaway you have about the relationship between science and culture? This should be approx. 200-250 words with clear paragraphs, proper grammar, and complete sentences.

- What struck you?
- What did each culture believe and why?
- What did each culture practice?