Knowledge:
1. What is the aim of the Archaeological Investigations of Colonial Maryland project?
2. What is spectroscopy?

Comprehension:
3. Why are non-destructive techniques becoming increasingly prioritised within archaeology?
4. Why is a holistic perspective important for archaeological research?

Application:
5. How do you think the team deciphered that the cannonball they found was from 1812? What historical and chemical clues might have been employed?

Analysis:
6. What is significant about Maryland’s history?
7. Compare the academic skill sets of Scott, Nichole, Isaac and Becky. How do you think they interact with one another to form one effective project?
8. How important do you think it is for the artefacts discovered to be available for the public to see and learn about?

Evaluation:
9. Liza believes that the future of archaeology lies in curation and collections rather than fieldwork. How might this influence the type of people who pursue a career in archaeology? To what extent would you enjoy this focus and why?
10. What do you think are the main positive outcomes of the project for society? Do you think the most benefits lie in the discoveries made, or the skills and experiences gained by students?

Improve your understanding of Archaeology and its various components by exploring the following resources:

• More about the project and its various components can be found on the project website: [www.smcm.edu/research/nsfreu](http://www.smcm.edu/research/nsfreu)

• This paper provides an insight into how analytical chemistry can be combined with archaeology to discover new historical information. It details a study that looked into the chemical composition of makeup used by ancient Egyptians: [https://pubs.acs.org/doi/10.1021/ac902348g](https://pubs.acs.org/doi/10.1021/ac902348g)

• This video from Chemical & Engineering News explains how researchers are examining historically significant North American rock paintings using X-ray fluorescence technology: [www.youtube.com/watch?v=sc6O7OnuDoU](http://www.youtube.com/watch?v=sc6O7OnuDoU)

Imagine you are in charge of planning a season of the Archaeological Investigations of Colonial Maryland project. This includes ensuring that project leaders, mentors and students are given appropriate responsibilities and tasks and have the right equipment and support. Before beginning, read back over the roles of the different people involved in the project and think about how these all intersect with one another.

Approach the tasks through the following steps. Feel free to use diagrams, mind-maps, illustrations, or anything else you feel would make it easier to conceptualise and communicate your plan.

1. What are the aims of the project? This should include both scientific outcomes and professional development outcomes.
2. What should the fieldwork component of the project entail, in terms of personnel, equipment and other logistical considerations?
3. What should the lab-based component of the project entail, in terms of personnel, equipment and other logistical considerations?
4. How will the project report on its findings?
5. How will the project evaluate its success?