

Information for Teachers

The Science of Archaeology: Water Analysis

KS3 Session at Flag Fen



Flag Fen is an internationally important Bronze Age archaeological site; it houses many Bronze Age artefacts, found around a wooden causeway and platform, and is home to some recently discovered Bronze Age log boats which are currently being conserved.

The survival of this archaeology for over three thousand years is due to the distinct chemistry of the area, and this chemistry is being changed by the way people use the landscape.

In this hands-on session students will explore the water chemistry of the site: they will collect and examine water specimens from different areas and measure variables including, pH, conductivity and dissolved oxygen using scientific techniques and equipment.

Students will analyse their results, looking at how the factors measured vary across the site and consider the likely causes of any variation.

Finally, students will be asked to consider how the factors measured could affect the archaeology of the site and its survival, and discuss whether the preservation of the past should be a priority.

National curriculum links: Science, Mathematics.

Learning objectives

At the end of the session students will be able to:

- understand the application of scientific investigation to issues in the real world.
- carry out appropriate and safe methods of sample collection.
- understand the different methods of measuring variables, their accuracy and appropriate use in different circumstances.
- consider what may cause sample bias, and how to lessen it.
- have collected a body of results that can be presented graphically, and analysed mathematically to demonstrate central tendency and spread.
- understand the effects of different environmental variables on the preservation of archaeology.
- have an understanding of pH, conductivity, dissolved oxygen and chemical pollutants and their effect on environment.
- be able, through observation and evidence gathered, to postulate what may cause these variables to change.
- understand why monitoring variables is important, the importance of preserving archaeology.

Vivacity Heritage Education Service
Peterborough Museum, Flag Fen and Longthorpe Tower
01733 864 700 or email: museum.education@vivacity-peterborough.com

Other information:

Duration:	Half-day
Cost:	£135 (Peterborough City Council schools) /£150 (other schools). If there are less than 20 pupils: £120 (Peterborough City Council schools) /£140 (other schools).
Maximum group size:	Maximum number per group is 30.
Recommended ratio:	Minimum 1 adult to 8 students.
Booking information:	To book, please contact us by phone or email. When the activities and date are agreed, a booking form and risk assessment is emailed to you. To confirm the visit we ask that you complete the booking form and email it back to us.
A note about behaviour:	School staff have overall responsibility for the behaviour of their pupils and we expect you to support Museum staff with this where necessary. As you know, pupils benefit significantly when school adults also get involved in the workshops, so please join in where appropriate.
Optional and additional activities:	If you would like to extend your visit to a full day, the following session works particularly well. Please contact us for more information. Extra charges are applicable. We are able to cater for up to 60 students. The Science of Archaeology: Excavation – allow 2 hours Students will further explore the science of archaeology by experiencing its process, undertaking a reconstructed dig using proper archaeological methods and recording the excavation.

"Today has been great! We are very keen to come back with another group of students next year to do another Archaeological Science Session at Flag Fen."

(Teacher at Thomas Deacon Academy)

"At Flag Fen I liked testing the water samples."

(Student at Thomas Deacon Academy)

"I enjoyed collecting data."

(Student at Thomas Deacon Academy)



We are happy to adapt the session according to your needs.
We welcome and encourage pre-visits.