What Sank the *Mary Rose*?

Teacher's Guide – Key Stage 3

A practical STEM session that combines historical inquiry with scientific experimentation to uncover the most likely reasons for the sinking of the Mary Rose. Was it unstable or overloaded? Was it a design flaw? Which factors combined to cause this disaster? Pupils test predictions relating to stability and the load-bearing capacity of the models and use scientific and historic evidence to support or refute theories.

Skills covered:

- Exploring historically valid enquiries
- Understanding different types of historical and archaeological evidence
- Making predictions using scientific knowledge and understanding.
- Interpreting observations and data

Links to the aims of the National Curriculum for Science

- 'develop understanding of the nature, processes and methods of science through different types of science enquiries that help them to answer scientific questions about the world around them'.
- 'relate scientific explanations to phenomena in the world around them and start to use modelling and abstract ideas to develop and evaluate explanations'.
- 'ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience'.
- 'make predictions using scientific knowledge and understanding'.
- 'select, plan and carry out the most appropriate types of scientific enquiries to test predictions'.
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- 'identify further questions arising from their results.'

Links to the subject content of the National Curriculum for Science

- 'opposing forces and equilibrium: weight held by stretched spring or supported on a compressed surface'.
- 'moment as the turning effect of a force'.

Links to other areas of the National Curriculum

History: ‘make connections, draw contrasts, analyse trends, frame historically-valid questions and create their own structured accounts, including written narratives and analyses’.

History: ‘understand the methods of historical enquiry, including how evidence is used rigorously to make historical claims, and discern how and why contrasting arguments and interpretations of the past have been constructed’

Links to the Curriculum Review (November 2025)

- This workshop demonstrates the links between history and science and how the need for critical thinking is an essential skill for many areas of life.
- It also provides an opportunity for pupils to participate in practical work, ‘building students’ procedural confidence with scientific equipment, reinforcing key scientific concepts and fostering curiosity and engagement’.

Expanding the Learning:

Here at the Mary Rose, we understand the importance of making the most of educational trips and giving students experiences and memories to last. We aim to support teachers in giving their students the chance to reflect upon their time here at the museum and relate that to their classroom work to make it more fun, enjoyable and memorable.

The following are some ideas for classroom activities that could aid students in recalling what they have learnt here at the Mary Rose Museum and to solidify that understanding.

Students can…

- Write up their experiments and think about what they could do differently next time.
- Watch the experiment on the sinking from the Channel 4 documentary ‘What Sank the Mary Rose?’.
- Investigate the Vasa, the Swedish ship that sank on her maiden voyage, about 80 years after the *Mary Rose* https://www.vasamuseet.se/en. Does her sinking help our understanding of the *Mary Rose*?
- Write a survivor’s account of the sinking – what was it like to be on there?
- Create a news report about the sinking as if you were there on the day.
- Conduct an investigation into the sinking – either modern forensics one, or a historical one led by Henry and his court.