



MARITIME FUTURES

KS3



Geography

How does maritime make our community unique?

How is Cowes high street influenced by the maritime industry?

What does land use tell us about how maritime influences the economy of Cowes?

Science

What is the science behind maritime exploration?

What stress does diving put on our bodies and how do forces operate under water?

How does pioneering science support the underwater study of our maritime heritage?

How does science enable maritime artefacts to be preserved?

Technology

What makes maritime technologies so advanced?

How is the maritime industry supporting aerodynamic international development?

How do I use an electrical circuit as a control device for maritime safety?

What is the science behind a hovercraft?

Can I use planning, preparation and quality task design to work out how a boat sails?

YR7



Visit from the Shipwreck Museum

A professional maritime artefact diver visits the academy to talk to students about their work and how science supports them.



Technology in action visit to CECAMM: Sea Rescue

Maritime Electronics: Students visit CECAMM (Centre of Excellence for Composites, Advanced Manufacturing and Marine) and engage in a practical activity to explore the links between technology and the maritime industries. Students tour the industry standard facilities, hear careers talks and build electrical circuit boards which result in a light sending an SOS signal.

SAILING CLUB

Art

Who are our maritime heroes?

How can maritime inspire our creativity?

How does Art record significant maritime people and what impact does this have on how we remember history?

Geography

What makes our maritime environment unique?

How has the Isle of Wight coastline changed over time?

How is land used in Cowes?

How effective is coastal management in Cowes?

Boat field trip on the Solent

This unique visit takes all students out on a boat to see the varied coastal features on the north coast of the Isle of Wight. The students hear from local experts about how the coastal management techniques were conceived, funded and received by the local people. Students judge how effective the coastal management techniques are and their potential impact on residents. The tour is led by the Cowes Harbour Master who brings his extensive knowledge of the workings of Cowes Harbour.

REGATTA

YR8



History

How has maritime changed the world?

How did ships help migrants travel to Britain in the past?

Why has travel by water been significant in the development of Britain?

Geography

How can maritime connect the world?

Where do the ships we can see in the Solent come from?

How does shipping contribute to the economy?

How has containerisation accelerated globalisation?

Technology in action visit to CECAMM: Sea Rescue

Naval Architecture: Students visit CECAMM (Centre of Excellence for Composites, Advanced Manufacturing and Marine) and participate in a carousel of activities to explore naval architecture. In particular, students learn about welded joint structures, how to set a lathe or mill and how a CNC (computer numerical control) machine is programmed.

Science

Is our maritime environment vulnerable?

How do environmental changes affect our coastal wildlife?

How can our future be wilder?

How can I be a citizen scientist?

Visit to the Mary Rose in Portsmouth

This visit is an student led enquiry into how students can independently draw inferences from the artefacts found on the wreckage of the Mary Rose. Students will have a guided tour of the museum and each student will have their own thematic focus, for example multiculturalism or warfare technology. Each theme will be drawn back to wider inferences about life in Tudor England and address any misconceptions about the perceived mono-cultural nature of Tudor England. Students learn how England was a maritime lead and attracted people from around the world.

History

How did maritime skills and warfare bring people together from across the world in the Tudor period?

How did naval warfare make Tudor England multicultural?

Visit from the Hampshire and Isle of Wight Wildlife Trust

Students learn about the impact of global environmental change on our local environment here on the Isle of Wight. We study marine life as an indicator of the health of our sea and how our marine life is unique and important.

SAILING CLUB



Technology

What are modern methods of sealing and creating hulls?

How do boats of different weights float according to their shape?

How can something be both light and strong?

What are different methods of coating the hull of a boat?

How can a styrofoam model be coated with the correct materials using a variety of different infusion methods?

Technology in action visit to CECAMM: Sea Rescue

Maritime Engineering and Composites: Students visit CECAMM (Centre of Excellence for Composites, Advanced Manufacturing and Marine) and participate in a carousel of three activities and experiment with different types of metals and joints to investigate the properties of materials. They learn about a working marine engine, solder electrical components to repair helm equipment and experiment with composite materials to repair boat hulls.

Technology

How do the properties of materials affect the design solutions to a problem?

How do we join together parts of boats?

Which properties of materials are best suited to boat manufacturing and why is this?

How do forces between particles affect the properties of materials?

Science

What impact have advances in material science and technology had on the maritime industry?

How do the properties of aramid and carbon fibres lend themselves to uses in the maritime industry?

How are marine composites used?

What are the advantages and disadvantages of marine composites?

SAILING CLUB

KS4

YR9

REGATTA

