

Naval architect

NUSTEM Workshop Teacher's Guide



Overview

Naval architects design and create vehicles and structures that go in, on or under water, from boats to submarines to oil rigs. During the session, children will be designing and building boats with different materials and investigating which shaped boats float or sink.



Curious Organised Creative

Supporting the Workshop

NUSTEM workshops are at their best when actively supported by the classroom teacher. Your knowledge of the children allows us to get the best from the activities and resources we've created. You can support us by:

- Actively engaging with the workshop
- Taking a lead role in behaviour management
- Providing support to any children who might find the workshop challenging
- Praising children when they show the three workshop attributes

The NUSTEM Approach

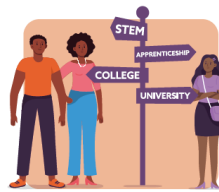
NUSTEM is an outreach and research group based at Northumbria University. We believe that STEM should be accessible to everyone, for study and for pleasure, from early years, through school, to employment, and beyond. We support children, with the help of their families and teachers, to feel more confident that a career in STEM is for 'people like them'.



Start working with families and children from a young age.



Use attributes of people working in STEM to help children to see what they have in common with them.



Show parents and carers the different routes into STEM careers.



Support teachers to include careers in their subject lessons. Showcase local opportunities.

Session Logistics

This activity involves water! We will bring water trays and towels but will need access to a tap (warm if possible). This activity works best if children are in five or six mixed ability groups working around a group table with the water tray in the centre. Children will first be using playdough to create their boats. This can be quite difficult to manipulate at first so will require perseverance. Children will also be using tin foil, which can be quite delicate and will need to be handled gently and with care.

Extending the Learning

For this workshop you could:

- Design, make and test boats using different materials.
- For another floating shapes and materials activity, visit our floating flowers STEM at home page: <https://nustem.uk/activity/floating-flowers/>