



# The Whitstable School **STEM** Academy

## **STEM Learning Journey** **Year 7**

The curriculum has been planned to encompass six projects.

The projects have been carefully designed to incorporate all STEM phases of learning.

Term 1 & 2: We focus on product design and creative engineering skills.

Term 3 & 4: A focus on water on Earth and beyond.

Term 5 & 6: We focus on climate, habitats, ecosystems, and plastic pollution.

This years overall theme encompasses creative research and problem solving based around water.

Our students will focus on the Whitstable coastline, local water ways and how humans have impacted on the ecosystems that have been affected.

# STEM LEARNING JOURNEY YEAR 7

## TERM 1 & 2

Innovating new technologies and products through collaboration between engineers and designers, enhancing functionality and aesthetics.

### SUCK IT UP

Investigate sustainable practices in the design and production of Tyson products, focusing on reducing carbon footprint and using recyclable materials.

### MASTERPIECE

Research the Creative Arts, Stepping into the careers of a Stage Manager, Visual Effects Director, Museum Curator, Sound Engineer. Developing communication skills, time management, engineering and design, alongside mathematics and technology.

## TERM 3 & 4

Researching strategies to improve and sustain water quality of Whitstable and beyond.

### THE BIG CLEAN UP

Assessing the impact of pollution and contamination in Aquatic ecosystems, that have biological effects on the community and its surrounding habitats. Integrating Science, technology, engineering and maths.

### LETS TALK WATER

Inquire into the ideas of life beyond Earth. Taking part in thought-provoking studies of subsurface liquid deposits on other moons and planets. The research uses mathematical models to estimate that a quarter of known exoplanets may have liquid water.

## TERM 5 & 6

Promoting sustainability and social responsibility through projects focused on environmental conservation, health, and general improvement

### BUG OUT AND URBAN INTERACTIONS

Analysing how local urban areas affect biodiversity, levels of pollution, and habitat. Design urban green spaces that enhance insect habitats, alongside mammals that test the effectiveness of supporting biodiversity.

### KEEP IT GREEN

Reusing Earth's resources to reduce pollution, by developing biodegradable materials, optimising waste management, promoting sustainable practices. Develop scientific research skills, technological innovations, and community awareness.