



Fy nhaith ddysgu yn Ngwyddoniaeth/Thechnoleg/TGCh

My learning journey in **Science** and Technology/ICT



Uned ymholi/Enquiry unit: *Do you have what it takes to be an Oceanographer?*

Gwybodaeth a dysgu blaenorol/Prior knowledge and learning:

Previously, you have discovered about how living things compete for specific resources and depend on each other for survival, as well as the features of organisms and how they allow them to live, grow and reproduce in their environment. Furthermore, you have engaged with scientific and technological evidence to inform your own opinions.

Yn ystod eich taith mi fyddwch yn ...

During your journey you will ...

- Explore different careers within STEM, including discovering the desirable skills and attributes of an Oceanographer
- Outline reasons for why flooding may occur as well as recognise some of the effects of flooding
- Analyse tidal data to help predict flooding in coastal towns and villages
- Explore the oceanic ecosystem, recognising common food chains, food webs & pyramids
- Describe the impact of global warming on increased flooding across Wales and the world
- Using both historical records and future analysis, make predictions as to when Fairbourne is likely to flood and why
- Explain why the oceans are becoming more acidic and what impact this has on the different ecosystems that live there
- Evaluate from both a financial, moral and ethical viewpoint whether Fairbourne should be allowed to flood in the future

Yr ydym ar y daith hon oherwydd ...

We are on this journey because ...

- There are amazing career pathways and future opportunities for all of us in STEM
- Natural Resources Wales (NRW) have invested £6.8 million in a scheme to protect over 400 properties in the village of Fairbourne from potential tidal and river flooding from the Mawddach estuary. Local to Tywyn and home to many of our pupils, it is important for us to be knowledgeable about our community and act ethically
- The ocean is important - it regulates lots of global processes such as the climate and our weather, it made earth habitable, it's a huge carbon sink and it supports vast amounts of biodiversity, life and ecosystems.
- The way we live our lives influences the health of the ocean, from where our energy comes from, to the food we eat.

Eich tasgau/Your tasks:

Tasg/k 1: **Summative Assessment:** Pre and post topic quiz

Tasg/k 2: **Home Learning Task:** Creative Food Web/PoN Task

Tasg/k 3: **Practical Skills:** Coastal Erosion Investigation

Tasg/k 4: **Creative Assessment:** Careers Focused Task

