

INTRODUCTION

The marine world is so often overlooked and seen as something a million miles away. **Project Seagrass** wants to change this and bring the ocean to the classroom, inspiring a new generation of ocean lovers that are aware of the effects of their actions and how to make positive, sustainable choices.

The activities have been designed for KS3 students between 11 - 14 years old. The activities complement various aspects of the Welsh, English, and Scottish curriculums.

The resources have been written as part of a five-day residential course but are accessible as standalone activities or themed activity packages to enable wider accessibility. The proposed residential site is **Porthdinllaen**, North Wales. Porthdinllaen is a special area of conservation known for its large seagrass meadow, making it the ideal place to highlight the wonders of this little-known ecosystem. However, all activities can be adapted to other UK coastal sites and many to non-marine or classroom settings.



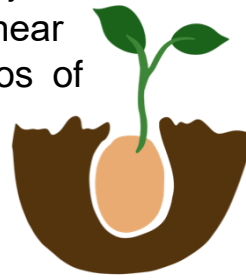
Some activities require specialised equipment, however wherever possible easily accessible household items have been suggested and resources have been kept to a minimum.

Project Seagrass is not responsible for mitigating risk or injury to participants or leaders whilst undergoing an activity. Risk assessments and precautions are your responsibility. Please see our coastal tips for baseline advice for working on the beach and in the shallows.



If you find yourself in an emergency or spot someone else in trouble, you should call **999** or **112** and ask for the coastguard.

We hope these activities inspire curiosity and care for the natural world. Please get in touch with Project Seagrass via social media - we'd love to hear your stories and questions and see photos of your seagrass adventures!



Content:

- Introduction
- Coastal tips
- Activity guides
- Extra resources
- Glossary

Activities:

The original design was for the **site comparison** activities to happen over the first two days, giving the participants a baseline knowledge to build on for the **green future** activities over the second two days.

- Site comparison activities were designed to highlight the differences between a bare sand sea scape and a complex seagrass environment. It is advised to spend a day conducting activities at one habitat and the second day at the other. If following this set up, the intent was for the species hunt and samples for the water filtration and microplastic activity for a site to be collected in one go and then repeated at the second site the following day.
- The litter activity involves a daily mini beach clean through the residential but can equally be done as one large session.
- Most beach activities are recommended to be done at a low tide, which may mean a flexi hours approach to timetabling is needed (early starts and late finishes!).

| Site comparison activities | Green future activities |
|--|---|
| <ul style="list-style-type: none"> • Species hunt (minimum 30 mins) • Water filtration (2-3 hours) • Microplastics (3-4 hours) • Coastal defence (20 mins) • Hide & Seek (10 mins) • Geology intro (2 hours) | <ul style="list-style-type: none"> • Habit breaker (5 mins) • Climate change introduction (5 mins) • Underwater gardener (2 lots of 3 hours sessions) • Stakeholder meeting (1.5 hours) • Litter and the environment (1-2 hours) • Resource rampage (30 mins) • Home audit (20 mins) • Making changes (1-2 hours) |

Suggested timetable/activity combinations, with a day for travel. Morning activities are at the beach, afternoon activities can be classroom or outdoors depending on the weather.

| | Day 1 | Day 2 | Day 3 | Day 4 |
|-----------|--|---|---|---|
| Morning | Species hunt, Water filtration, and Microplastic Sample collection from site 1 | Species hunt, Water filtration, and Microplastic Sample collection from site 2 | Seed collection | Planting and Litter collection analysis |
| Afternoon | Hide & seek, Coastal protection, and an Introduction to geology | Follow up indoor activities for Species hunt, Water filtration, and Microplastics | Climate change, Resource rampage, and the Stakeholder meeting | Habit breaker, Home audit, and Making changes |

Extra resources:

- Nature photography guide
- Persuasive writing guide

Activity structure:

You will find a teacher's guide and a matching workbook for each activity. The teacher's guide provides extra tips on leading the activities and answers to the workbook.

Teachers guides begin with an overview of learning objectives and curriculum links, followed by a key information box with 4 bullet points:

KEY INFORMATION

- Location of activity – indoor, outdoor or both
- Individual, partner or group activity
- Length of activity
- Activity type- teacher presentation/practical/workbook

Each then works through the following structure:

- **Learning tips.** Some activities complement each other, these are highlighted here! There may also be alternative ways to run the activity. Links to recommended external activities and resources are also provided. Still, Project Seagrass does not take responsibility for the content provided and can only recommend the available content at the time of creation.
- **Key words.** Check the glossary for extras!
- **What's it about?** A broad introductory topic explanation.
- **What to do.** Followed by a list of **necessary and optional resources** to complete the task and **Health and safety points** - any major hazards involved with the activity. Always do a thorough risk assessment for your individual circumstance prior to an activity.
- **Workbook questions and answers.** Some activities have follow-up questions and activities in the student workbook. When appropriate, answers for these have been added here.
- **A fun fact!**

If you're inspired, check out and get involved with these citizen science projects!

- Seagrass spotter! <https://seagrassspotter.org/>
- Great egg case hunt- resources from the Shark Trust- <https://www.sharktrust.org/great-eggcase-hunt>
- Surfers against sewage have initiatives such as plastic-free schools and ocean school, organise mass unwraps, and beach cleans <https://www.sas.org.uk/our-work/education/>
- Wildlife trusts have lots of citizen science projects to get involved with from shore searches, hedgehog hunts to river searches <https://www.wildlifetrusts.org/citizen-science>
- Marine conservation society has lots of initiatives, including beach cleans and seaweed hunts. <https://www.mcsuk.org/get-active/>
- Capturing our coast records everything on our beaches and provides lots of gear to get your id skills trained up <https://www.capturingourcoast.co.uk/Specific-investigations>
- Garden BirdWatch <https://www.bto.org/our-science/projects/gbw>
- Natural history museum has a list of lots of different nature-based citizen science projects <https://www.nhm.ac.uk/take-part/citizen-science.html>
- CJS has a whole collection of different projects in different areas <https://www.countryside-jobs.com/volunteers/citizen-science>