

COAST Marine Education Resource pack Introduction

This education Pack has been produced by the Community of Arran Seabed Trust (COAST). The pack is aimed at level 2 of the Curriculum for Excellence with scope for extending some of the activities beyond level 2 or adapting some for level 1. It has been designed to develop pupils' knowledge and skills and through raising their awareness, encourage them to take responsibility for the seas around us. It contains both classroom based activities and those which can be carried out on a trip to the shore. The activities can be done in any order or combination. However it is recommended that activities which involve the children preparing presentations or creating their own persuasive text are done towards the end of the sections they have studied. The method encompasses collaborative learning and a cross curricular approach. Some of the tasks are enquiry based, allowing pupils more control over their own learning, whilst others are more structured. Teachers can use or adapt as appropriate to the children they are teaching.

We have provided three planning documents:

- Learning experiences
- Outcomes
- Success criteria

These are samples, teachers may wish to compile their own.

The Power Point presentations are designed to be dipped into rather than worked through numerically. There are links to useful websites and a recommended book list.

Symbols Key:

Power Point resource provided

(P)

Worksheet/s provided

(W)

It is hoped that the educational pack will evolve over time and we would welcome teachers' input and ideas. Email info@arrancoast.com or complete the evaluation form provided with the pack and return to COAST.

The Education Pack will be on the COAST website in the 'Education' section.

www.arrancoast.com

Science

- In groups or pairs sort/classify living things according to own or given criteria.
- Use and create classification keys.
- Explore and create food chains, food pyramids and food webs.
- Create a food chain mobile.
- Record plants and animals found in different parts of the shore.
- Follow an enquiry approach in a group or with a partner to answer key questions about pressures on our seas. Prepare a presentation to deliver to an audience.
- List some of the problems plants and animals have to deal with on the shore.
- Consider questions on how plants and animals adapt to their marine environment.

Expressive arts

- Create and perform a piece of drama which communicates the message of 'The Bay', or pressures on our seas generally.
- Engage in role play activities considering the point of view of animals or humans on the issues of sea conservation.
- Keep a sketch book of observational drawings, photographs, textures, shapes, colours or patterns from the shore environment.
- Create a piece of art work using natural objects in the style of Andy Goldsworthy.
- Design an imaginary animal suited to a habitat of your choice, showing how it adapts to the conditions around it including how it will protect itself from predators.

Technology /ICT

- Use the internet to research aspects of the topic
- Use email to contact COAST or other organisations when doing research.
- Use Power Point to present information.

Social Studies

- Draw a map of the area of shore to be explored and devise a key to identify what lives there.
- Identify The Lamlash Bay No Take Zone and the proposed Marine Protected Area in the south, on a map.
- Research into other MPAs or NTZ and plot on a map of the world.
- Follow an enquiry approach in a group or with a partner to answer key questions about pressures on our seas. Prepare a presentation to deliver to an audience.
- Use photographs to generate questions on an issue relating to our seas.
- Plan and carry out a beach clean event.

COAST Second Level Learning Experiences



Health and Well Being

- Investigate the careers and work of marine biologists in the past and present and relate this to the relevance of what we are learning.
- Use the outdoor environment to learn and face new challenges.
- Do a risk assessment before taking a trip to the shore.
- Devise a guide for behaviour on the shore considering respect for the environment and the species which live there.

Literacy

- Compile questions after viewing 'The Bay' DVD.
- In groups research answers using books, internet, personal interviews, email or letters.
- Make notes on The Bay and the issues of the pressures on our seas and on the tools the film makers have used to make the audience care.
- Explore persuasive language in 'The Bay' DVD, the COAST leaflet, and in our wider lives.
- Identify and use language features, (metaphors, similes, personification, emotive language, rhetorical questions.)
- Create metaphors, similes or personification for marine life.
- Create a persuasive text, poem, newspaper article or presentation to communicate the message of 'The Bay'.
- Write a riddle using the characteristics and behaviour of marine animals.
- Write a letter to find out if the fish we eat in the school canteen is sustainably fished.

Numeracy

- Interpret graphs/charts when carrying out research
- Formulate own questions on data
- Use a tally to record the number of each living things found in different parts of the shore and draw conclusions from results.
- Produce graphs/ charts from data collected in research.
- Use timetables to plan a journey from Glasgow to Lamlash to carry out an imaginary survey dive.

Science

- I can identify and classify examples of living things past and present to help me appreciate their diversity. I can relate physical and behavioural characteristics to their survival or extinction. **SCN 2-01a**
- I can use my knowledge of the interactions and energy flow between plants and animals in ecosystems, food chains and webs. **SCN 2-02a**
- I can report and comment on current scientific news items to develop my knowledge and understanding of topical science. **SCN 2-20b**

Expressive arts

- Through observing and recording from my experiences across the curriculum, I can create images and objects which show my awareness and recognition of detail. **EXA 2-04a**
- Inspired by a range of stimuli, I can express and communicate my ideas, thoughts and feelings through activities within art and design. **EXA 2-05a**
- I can respond to the work of artists and designers by discussing my thoughts and feelings. I can give and accept constructive comment on my own and others' work. **EXA 3-07a**



Health and Well Being

- Opportunities to carry out different activities and roles in a variety of settings have enabled me to identify my achievements, skills and areas for development. This will help me to prepare for the next stage in my life and learning. **HWB 2-19a**

Social Studies

- I can discuss the impact of human activity and suggest ways in which we can live in a more environmentally responsible way. **SOC 2-08a**
- To extend my mental map and sense of place, I can interpret information from different types of maps and am beginning to locate key features within Scotland, UK, Europe or the wider world. **SOC 2-14a**



COAST Second Level Curriculum for Excellence Outcomes



Numeracy

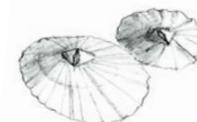
- I can use and interpret electronic and paper based timetables and schedules to plan events and activities and make time calculations as part of my planning. **MNU 2-10a**
- I have carried out investigations and surveys, devising and using a variety of methods to gather information and have worked with others to collate, organise and communicate the results in an appropriate way. **MNU 2-20b**
- I can display data in a clear way using a suitable scale, by choosing appropriately from an extended range of tables, charts, diagrams and graphs, making effective use of technology. **MTH 2-21a**

Literacy

- As I listen or watch I can make notes, organise these under suitable headings and use these to understand ideas and information and create new texts, using my own words as appropriate. **LIT 2-05a**
- I can show my understanding of what I listen to or watch by responding to literal, inferential, evaluative and other types of questions, and by asking different kinds of questions of my own. **LIT 2-07a**
- To help me develop an informed view, I can distinguish fact from opinion and am learning to recognise when my sources try to influence me and how useful these are. **LIT 2-08a**
- Using what I know about the features of different types of texts, I can find, select and sort information from a variety of sources and use this for different purposes. **LIT 2-14a**
- I consider the impact that layout and presentation will have and can combine lettering, graphics and other features to engage my reader. **LIT 2-24a**
- I am learning to use language and style in a way which engages and/or influences my reader. **ENG 2-27a**
- I can persuade, argue, explore issues or express an opinion using relevant supporting detail and/or evidence. **LIT 2-29a**
- Having explored the elements which writers use in different genres, I can use what I learn to create stories, poems and plays with an interesting and appropriate structure, interesting characters and/or settings which come to life. **ENG 2-31a**

Technology/ICT

- I enhance my learning by applying my ICT skills in different learning contexts across the curriculum. **TCH 3-04a**



The four capacities

Responsible citizens

- I can respect others who may have a different point of view.
- I can develop my own opinions on the complex issues of healthy seas.
- I can use resources responsibly as part of a group or independently.
- I understand the impact of humans on our environment and can suggest action which can be taken.



COAST Second Level Success criteria



Confident individuals

- I can express my opinion, in a variety of ways, on the issues surrounding our seas, based on my learning.
- I can plan and assess risk before a trip to the shore.



Effective contributors

- I can ask relevant questions in discussions.
- I can contribute to group work and take on a particular role, e.g. scribe, chairperson.

Successful learners

- I can research, take notes and write about pressures on our seas.
- I can work independently and collaboratively to research issues which affect our seas.
- I can use knowledge I have learned about marine food chains to explain how everything in our world is connected.

Global citizenship - I am aware of environmental issues and the impact humans have, both positive and negative.

Eco schools - I understand the importance of recycling in our school to minimise our environmental impact.



COAST's Marine Education Resource Pack evaluation

We welcome your comments on the Marine Education Resource Pack. Please take a moment to comment on the aspects below and return to COAST. Please do make suggestions as we want this Pack to be as useful as possible.

1. How relevant is the content to the curriculum?

2. What comments do you have on the level and suitability of the activities?

3. Is the general layout good, and is it easy to use?

4. What do you think of the quality of the resources provided (teachers' notes, worksheets, Power Points, film clips, web sites, recommended book list)?

5. Do you have any additional (positive/negative) comments or suggestions?

6. If you have noticed any errors (typos, formatting) please do let us know?

7. On a scale of 1-10 (1 definitely no, 10 definitely yes), would you recommend this pack to other teachers and schools?

1 2 3 4 5 6 7 8 9 10

