Date	Class Level 5th and 6th	Subject Geography

Strand Environmental Awareness and Care	Strand Unit Caring for my locality Environmental awareness Caring for the environment

Title
Organising a Beach Clean and Survey

Objective(s)
The children will conduct a beach clean to show the benefits of caring for their local environment and ocean, as well as becoming environmentally aware and active.

Skills Required
Students will have developed a sense of place and space knowing learning about their local seashore. Students will develop their investigation skills through: questioning, observing, investigating, estimating and measuring, analysing, recording and communicating and evaluating.

Learning Objectives	Learning Activities
The child will be enabled to: Working in groups to gather, identify, provide an analysis, as well as record and communicate information about the litter found on the seashore. Understand degradation of items and the effects this can have on the marine environment. Actively care for the environment and how to become more environmentally aware and active.	**KWL chart:** Begin the lesson using a KWL chart, where students can track information before and after the lesson. Ask students leading questions from the chart: • What do you already 'know' about this topic? • What things do you 'want' to learn about the topic? • What did you 'learn' from doing your research? **Teacher Directed Approach:** Begin the lesson with an anecdote about plastics and litter found in the ocean. Explain how litter can affect the ocean habitat e.g. quality of the water as well as harming the animals that live in the ocean through entanglement. **Talk and Discussion:** Ask where the students think the litter on the seashore comes from. Elicit answers including: • People leaving rubbish at the seashore on purpose. • People forgetting to take their rubbish away with them after a day at the beach. • Rubbish blown out to sea by the wind e.g. from overloaded rubbish bins, rubbish dumps (and then being

washed up onto the shore).
- Rubbish washed out to sea by drainage systems e.g. cigarette butts.
- Items falling off boats and ships.

Investigative approach:
Ask the students to consider what we can do to help stopping rubbish from ending up in the ocean. Highlight the importance of beach cleans and caring for our environment.

Prior to the beach clean remind students of their safety on the shore – in the event of finding hazardous or sharp objects get assistance from the teacher / supervisor.

The Beach Clean and Survey
Split the class into groups and provide the team with the materials required.
Go through the different types of litter on the Survey Form so everyone is familiar with the items they are likely to find.
Delegate responsibilities e.g. Get the students to take turns between ticking off the litter collected, collecting it, and carrying the bin bag.

During the Survey the following things should be considered:

- Know your time limit and capabilities. Split the teams to cover different areas of the beach. Depending on the size of the beach area, focus on a small section and ensure it is cleaned well and surveyed accurately. The teacher should measure the total area surveyed (e.g. estimate on walking the area).
- Remove and record every piece of litter within the survey. Make sure that you have room to take bags of rubbish to the local dump / or contact the council for pickup.
- Natural debris (seaweed and driftwood) MUST be left on the beach, as these form important habitats for wildlife.
- Items should be counted using ⊬⊬⊬ (a tally system of lines which makes things off in sets of five). Don't use words such as 'lots' or 'many',

as these cannot be used in data analysis.

- Unusual items - include these in the relevant category on the Survey Form and make a special note so it can be discussed when back in the classroom.
- Take a photo to record or make a note of any stranded, entangled or dead animals – Do not touch.
- Note the presence of other pollutants such as oil or tar separate piece of paper. The teacher should inform the local council.

Talk and Discussion:
On the Seashore (or back in the classroom):
Explain what degradation is. Use the Explorers What is Degradation Presentation to guide you through this if needed.
Take a photo of all of the bags of rubbish with the students highlighting their success in cleaning up the beach area. (This can be used at a later date for writing a news item / blog etc). Discus and elicit suggestions of how everyone can continue to keep the seashore clean (e.g. Create a new habit: always take a small rubbish bag - that fits into your pocket - when going for a walk along the beach. If you see any litter left on the beach, pick it up. Then leave it in a bin when you have finished your walk. You don't have to clean the whole beach – but just removing a little bit always helps).

Back in the Classroom:
- Calculate how much of each item on the Survey Form was found?
Discuss with the students the data collected – it can be used to form graphs as a visual aid. Elicit a discussion with the students asking them questions such as:
- What was the TOTAL amount of litter found on the beach area surveyed?
- Estimate how much rubbish they think be on the whole beach (teacher to provide estimate size of survey area and beach size)?
- What was the most common type of litter found?
- Can the rubbish be divided into

categories e.g. plastic, cloth, metal etc?
- What was the most unusual item found?
- Where do they think the rubbish came from?

Get the students to draw a large graph showing the results of marine litter collected from the seashore.

Each group should present their results communicating what they have learned from the data collected.

The students should also complete their KWL charts and highlight their experiences.

This may include their awareness and attitudes towards litter on the beach, the enjoyment of working together in groups / as a class to conduct a beach clean and keeping their local environment clean, as well as what they would like to do to actively do more about marine environmental care.

Resources
- KWL chart
- Degradation information sheet
- Explorers what is Degradation Presentation.
- Seashore Beach clean:
  - Waterproof shoes or wellies - are a must!
  - Waterproof parka, jacket etc
  - Gloves / Rubbish bags
  - Beach Clean Survey Forms, clip boards and pens / pencils
  - Wipes for cleaning hands and feet etc / access to running or fresh water.
  - First Aid kit
  - Mobile phone and whistle
- Paper and materials for making graphs

Differentiation
Higher and Lower order questioning. Differentiate group activities and roles to account of individual needs, by support, task. Mixed ability pairing.

Assessment
Students: KWL chart (What I know, What I want to know, What I learned)
Teacher observation and questioning: Mind Mapping

Examine learning outcomes before and after e.g. knowledge, understanding, skills.
Evaluation: Reflect on learning experiences that lead to the outcomes e.g. attitudes, enjoyment, as well as motivation to learn about the subject.

Linkage and Integration
Science: Environmental Awareness and Care – see lesson plan on biodegradation quiz and information sheet.
Maths: Recognising and interpreting data, representing and interpreting data
English: Writing, Oral language

BEACH CLEAN SURVEY FORM

Use the following form to record items found on the seashore.

Beach Name:				Total No. of Bags collected:	
Group Name:				Total No. Foreign or traceable items:	
Date of Survey:					
Weather Conditions:				Total No. of Unusual Items:	
Example of how count items	Drink Cans	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~	TOTAL: 20		
	Caps / lids	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ IIII	TOTAL: 24		

Total for each item		Total for each item	
Plastic		**Cloth**	
Bags		Cloth pieces / string	
Bottles / Containers		Clothing / shoes	
Caps / lids		Other (specify)	
Cigarette lighters		**Metal**	
Crisp / sweet wrappers		Cans	
Cutlery / straws		Drink cans	
Fishing Net		Fishing weights	
Rope		Foil wrapper	
Toys		Food cans	
Traffic cones		Metal pieces	
Plastic pieces		Oil drums	
Polystyrene		Wire and wire mesh	
Fast food containers		Other (specify)	
Polystyrene pieces		**Medical**	
Packaging		Plasters	
Other (specify)		Syringes (Ask an adult for help)	
Rubber		Wet wipes	
Balloons		Nappies	
Gloves		**Paper**	
Tyres		Bags	
Rubber pieces		Cardboard	
Other (specify)		Cigarette stubs	
Glass (be careful picking up broken glass)		Newspaper / magazines	
Bottle		Paper pieces	
Glass pieces		**Wood (note: driftwood should be left on the seashore)**	
Faeces (DON'T TOUCH!)		Pallets / crates	
Dead Animals (DON'T TOUCH!)		Ice Lolly sticks	
		Other (specify)	
Other Pollutants			