

TOPIC 1 – COASTS

Week 1: Coasts – the big picture

Objectives & Resources	Lesson Notes
<p>Lesson 1 The action of waves on our coastline produces different landforms</p> <p>Objective To understand the key processes relating to coastal landforms</p> <p>To identify the key ideas</p> <p>To look at the overview of the topic</p> <p>Resources <i>geog.2 Section 4</i></p> <p>Geography file plus file paper and dividers</p>	<p>Starter Discuss with your teacher what you already know about coasts, and in particular, one you have visited.</p> <p>Main Lesson</p> <ul style="list-style-type: none"> • The coast is made by nature, and shaped and changed by waves, and humans. Look at the photographs in <i>geog.2. Section 4</i>. There you will see several different kinds of coastline. Which ones have you been to? • Your goals for this section are shown on this page. Read through them and discuss them with your teacher. • We expect that you know something about the power of waves already. What do you remember? • Read the 'facts' in the bubbles on that page. Which ones are surprising to you? • Talk about coasts with reference to the questions under 'Your chapter starter' at the bottom of the page. <p>Plenary Throughout this section of the book, we will use real examples of coasts in the UK to help us understand the processes at work. If you live in a country where you can reach the coast easily, see if you can draw parallels with the coasts that you will study, with real examples where you live.</p> <ul style="list-style-type: none"> • Open the OS map and look at the long line of coastline shown on that map. Which of the photographs on <i>geog.2 Section 4</i> is of this coastline? • Looking at photo D, and your OS map, find Handfast Point (055826). Is it part of the Jurassic Coast? • Draw a copy of that landform in photograph D and label any coastal features you recognise.

Week 1: Waves and tides

Objectives & Resources	Lesson Notes
<p>Lesson 2 Waves are caused by wind and tides by the moon.</p> <p>Objectives To learn about waves and what causes them</p> <p>To be able to identify the different parts of a wave and what they do</p> <p>To find out what tides are</p> <p>To understand about the action of the moon in determining tides</p> <p>Resources <i>geog.2 Section 4.1</i> <i>geog.2 Workbook, Worksheet 4.1 – Waves and tides</i></p>	<p>Starter Waves have an interesting action that you have probably noticed before. If you like water skiing or surfing, then you are already well versed in the topic of waves.</p> <p>Main Lesson</p> <ul style="list-style-type: none"> • Turn to <i>geog.2 Section 4.1</i> and look at the page about waves. The action of waves is clearly described, and you should note the new words fetch, swash, uprush, and backwash. • Write a definition of each of those words. • Draw a series of waves, labelling each part. • Discuss the answers to <i>questions 1-3 in geog.2 Your turn</i>. • Read and discuss the way 'tides' occur. What would your definition of a tide be? • Answer <i>question 6 in Your turn, geog.2 Section 4.1 in proper sentences</i>. <p>Plenary Recap what you have found out about waves by discussing the answers to <i>geog.2 4.1 Your turn, question 5</i>.</p> <p>Test your knowledge of waves by completing <i>geog.2 Workbook, Worksheet 4.1</i>.</p>



Week 1: The waves at work

Objectives & Resources	Lesson Notes
<p>Lesson 3 Waves both erode coasts and deposit materials on the coast</p> <p>Objectives To understand the wave forces at work</p> <p>To understand the forces at work that cause erosion by waves</p> <p>To start to learn about the depositional activities of waves</p> <p>Resources <i>geog.2 Section 4.2</i> <i>geog.2 Section 4.3</i></p> <p><i>WES Worksheet 1- Erosion and deposition features of waves</i></p> <p><i>Jurassic Coast</i></p> <p>Homework Resource <i>geog.2 Workbook,</i> <i>Worksheet 4.2 – The waves at work</i></p>	<p>Starter You have probably stood on a beach at some time and felt the waves pulling stones and sand from under your feet or been battered by sand and stones in waves that run up the beach. Those are small examples of what waves can do. What else do you think waves can do?</p> <p>Main Lesson.</p> <ul style="list-style-type: none"> • Waves carry material from areas of the coastline with soft rocks to other areas of the coastline, where they are deposited. The general direction of the sea, dependent on the prevailing winds, will tell you which direction the sea is moving, and which areas could be eroded. Further along the coast of that prevailing wind, some of the material will be deposited. • Look at the section on erosion in <i>geog.2 Section 4.2</i>. • Write definitions of hydraulic action, abrasion, solution and attrition. You may have met these terms before in other water topics. If you are in doubt about these definitions, look them up in the glossary in the back of <i>geog.2 textbook</i>. • The illustration at the top of <i>geog.2 Section 4.3</i> shows some erosion features. Discuss them in the light of what you have just found out about the wave forces at work. • Use <i>WES Worksheet 1</i> and start to make a table of erosion and deposition features caused by waves. Try to fill in all the erosion features. • The illustration, in the section 'transport', shows simply the direction of travel of a small stone on a regular coastline where the winds are mainly from the south west. • Groynes are simple man-made structures that have been inserted on beaches to stop longshore drift? What is longshore drift? • Discuss the answers to <i>geog.2 Section 4.2 Your turn question 4</i>. <p>Plenary</p> <ul style="list-style-type: none"> • To recap your knowledge of wave features so far, discuss <i>geog.2 Section 4.2, Your turn, question 5</i>. • Look at the section on Lulworth Cove in <i>Jurassic Coast</i>. <p>Homework for Week 1</p> <ul style="list-style-type: none"> • Do <i>geog.2 Workbook, Worksheet 4.2</i>.

NOTES TO THE TEACHER

Week 1: Topic Coasts

Preparation

Always read the whole set of topic pages before starting it with the student. That will give you a good overview of the topic – *Coasts* in *Section 4* in *geog.2*.

Lesson 1

- This lesson is primarily a discussion lesson, based around the opening pages of this section. The idea is just to discuss what is already known about coasts. The map work element of this topic will focus on the Purbeck and South Dorset coast of England. You may have visited this, which would be an advantage! Do use the OS map as much as you can in this topic, and familiarise yourself with it, as well as encouraging your student to do so. The set written work is very limited and just a drawing to be done. This lesson may therefore be quite short. If you live near a coast this would be an ideal place to visit during this topic.

Lesson 2

- This lesson is about the action of waves. Much of this will be known and therefore will be revision. Please pay attention to the topic words in bold in the text and perhaps, make a list of topic words to add to. Ensure secure understanding of each word. When helping a student with clear drawing, encourage simplicity rather than too much detail. Labels to diagrams should always be horizontal, and just indicated with a line (and not an arrow).
- You have the answer book for *geog.2 Workbook*.

Lesson 3

In this lesson we look specifically at the work waves do on the coastline. Their action, as seen last lesson, can be strong or weak, and can carry material or not. The action of the water in waves is divided into 4 groups. Make sure the student understands the different actions for each word.

- ~The answers to *WES Worksheet 1* are in the *Appendix*. It should just be started in this lesson
~You have the answer book for *geog.2 Workbook*.

