#### THE COASTAL TRAIL - KS3 - SUPPORTING NOTES



#### Welcome to the Isle of Wight Coastal Trail for Geography at KS3!

The resources cover six different locations around the island, and allow students to study a variety of different human and physical geography topics. All of the resources are closely linked to the KS3 National Curriculum Geography Programme of Study. The following notes give an overview of each location and guidance to accompany the resource for that location.

Location		Curriculum Content / Skills	Number
VENTNOR	S	<ul> <li>Processes of long-shore drift and the development of beaches</li> <li>Microclimates</li> <li>Making observations of, and categorising, human activities and land uses</li> </ul>	107
CHINES		<ul> <li>The physical processes (past and present) responsible for the development of Chines</li> <li>The key characteristics of Chines</li> </ul>	107

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		Cowww.edudest.uknage the risk of coastal flooding	
DOWN		and erosion	>,
ALUM BAY/ THE NEEDLES	The state of the s	<ul> <li>The formation of sedimentary rocks at Alum Bay, and making observations of the cliffs, including the different rock types</li> <li>Human activities and their potential impacts</li> <li>The Needles: the sequence in the formation of stacks</li> </ul>	107 574
RYDE		<ul> <li>The site and situation of Ryde settlement, and how it has grown over time</li> <li>Ryde today – making observations of land use along the seafront &amp; using evidence to assess the function(s) of the town</li> </ul>	107 5 <b>7</b> 5
ST HELENS DUVER / BEMBRIDGE		<ul> <li>Sand dune formation and key characteristics</li> <li>Human activities in the sand dune ecosystems</li> <li>Human and physical interactions; the positive and negative impacts of human activities</li> </ul>	107 5 <b>7</b> 6

### Ventnor



Ventnor, located on the south of the island, is a popular tourist destination. The resource is aimed at providing students with an understanding of both the physical and human geography of the town. The resource is set out as if students are following a 'recipe' to gradually build up their understanding of the physical and human features of Ventnor. The first two 'steps' in their recipe cover the physical geography; the physical processes responsible for the formation of the beach, and the factors which have led to a microclimate existing in this location.

continued overleaf...



The last section explores the human features of the town, and students should make a note of all of the different examples that they can see as they walk along the seafront. Walking from the car park at the eastern end of the seafront, to the Spyglass at the western end will give them a good range of land-uses and activities to record. Once they have recorded them, they can work with a partner to discuss possible categories to place them into. More able students could then be encouraged to consider the ways in which the human and physical geography of the town interact, e.g. the beach providing an economic resource for the town, or the potential impacts of coastal erosion/storms and the ways in which the seafront is being protected.



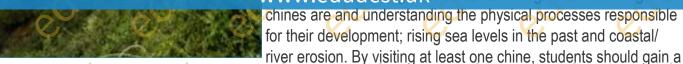
#### Chines

There are currently a total of 22 Chines on the Isle of Wight, and they each have their own character and unique features. The resource is deliberately not focused on one chine in particular, to allow you to explore more than one, or perhaps to compare different chines. However, it is equally possible to choose one Chine to visit and focus

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good understanding of how these physical processes have led to the creation of the feature that they can see, and be able to identify the key characteristics of a chine. Photos of different chines are provided in the resource if students are unable to visit more than one, and this will enable students to appreciate the differences between different chines around the island. There is also some information about the history of the Chines; smuggling, shipwrecks, lifeboat stations and the Chines during the war, as well as how they are used today and how they may change in the future. Students use all of the information in the summary activity, where they must draw a field sketch of a chine and label/annotate it using a colour coded system to describe and explain all that they have learnt. An excellent website on the Isle of Wight Chines gives a wealth of information about them, as well as providing information on access and facilities at each: http://www.iwchines.org.uk/

### Freshwater Bay / Tennyson Down

Freshwater Bay is a small cove on the south coast of the Isle of Wight. This resource examines the human and physical geography of this location, as well as taking it a step further to look at how the two interact. A 'starter activity' gets them thinking by looking at the Bay from a good vantage point and writing down three physical and three human features that they can see. Erosion is described as a key process in the formation of the physical geography of the bay, and the main physical features of the bay itself, the surrounding headlands, and the stacks are explained. A field sketch enables students to summarise their understanding of the key landforms, and how they have been created. Then, they will examine the human geography of the bay by conducting a simple land-use survey.

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Students will label/plot different land uses that they observe around the OS map provided. More able students



could be encouraged to use their observations to decide what the main function of the settlement is, and they should be able to justify their ideas using evidence (their observations).

Freshwater Bay is extremely vulnerable to coastal flooding and, finally, students will consider how humans are addressing the risks posed by the physical processes in the Bay.

They should identify the forms of management/protection that they can see and try to explain how each works. More able students could consider the likely impacts of coastal flooding and therefore the need for coastal protection.

#### **Alum Bay & The Needles**

The multi-coloured cliffs of Alum Ray are well-known and

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nere, a type of sedimentary rock, formed millions of years ago. Students should be able to identify the different geologies here; the sandstones, clay and chalk, and label them on the photo. They should also draw a sketch of the cliffs and label the different colours, the vertical layers visible in the sandstones,



evidence of erosion taking place (e.g. cliff falls or cracks) and human activity. More able students are encouraged, through an extension activity, to consider the impacts of human activities here (both positive and negative!). The beach is also an excellent location to get a view of the Needles Stacks, without having to actually go up to the viewpoint near the Needles Battery on the Headland (although you can walk up here or take a bus if desired). The formation of these stacks is described in the resource, with key geographical terms in bold. Students then draw a series of simple diagrams to show this step-by-step sequence, and write a caption to go with each. There is also a 'future' box for them to think about how the Needles may look in the future. BBC Education have an excellent video which can be used to illustrate for students how the process operates, and could be shown either before or after the visit.



### Ryde

Ryde was once a straggling fishing village strung out along a narrow belt of land between a steep bank and the sea, but has come a long way since then and it is now one of the largest towns on the island. Its proximity to the mainland (only about 5 miles!) benefits islanders and tourists alike. It has become a major transport hub for the island, with buses, trains and cross-Solent links interconnected at the transport interchange or 'Gateway'.



It's equally accessible from the mainland, and tourism is big-business. This resource focuses on human geography, and the topic of settlements. Key terms are introduced from the start, and a matching activity will help students to understand them before moving on to the other activities. They then look at the site of the settlement and are provided with an OS map extract and some secondary information, and they should use this along with their own observations to complete the table.

Activity 2 then looks at the situation, and a fill-the-gap activity will enable students to explain how Ryde's situation has enabled it to grow and develop over time. A series of historical maps will then indicate how the settlement has grown and the shape has changed, and students should either write a series of captions or a summary to describe what they can see. Activity four then involves conducting a land-use survey to assess the main types of land-use along the seafront, and then using this information to decide the main function(s) of the town. By walking from the train/bus station along the seafront to Appley Park, students will observe a wide range of transport, residential and tourism related land-uses and complete a tally. If desired, they could show this information in a graph at a later stage. Based on their observations they will reach a conclusion about the main function(s) of the town, and justify using evidence from their tally.

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#### www.edudest.ukbour is the island's most extensive and

best example of sand dunes and will give students a coastal ecosystem to study.

Through the activities in the resource they will learn, step by step, how sand dunes form and then how they develop over time into the 'fully fledged' ecosystem they can see. Sand is obviously a key ingredient and a wonderful resource to show students, either before or after their visit is this website: http://sandgrains.com/Sand-Grains-Gallery.html which shows the fascinating world of sand grains, as seen through a high-

powered light microscope! It's important that they read the information carefully and then walk around the Duver to relate what they have learnt to what they can see.

Students can add labels to the diagram on their worksheet, and also take pictures of key features. Perhaps they could add these later and display their work. Some form of identification chart, so that students can attempt to identify what they are seeing would enrich the experience. The FSC fold-out charts are particularly good for students to use and can be purchased from the FSC website at http://www.field-studies-council.org/publications/fold-out-charts.aspx.



The last section of the resource looks at human activities on the

Duver and they should identify as many different examples of human activities as they can and mark these onto their map. They should then discuss the positive and negative impacts of these activities in this ecosystem, and write their ideas in different colours around the map.

