

Curriculum Links

AS and A level Biology - Osmington Bay, Dorset

	Brief Description	Equipment Includes	Fieldwork Location	Curriculum Information - AQA
Marine Zonation	Horizontal succession is studied using line transects across the littoral zone to measure the percentage and/or frequency cover of the organisms. Vertical zonation studies can also be carried out, using a 10cm quadrat - vertically on the rocks - to examine changes in species number and diversity on a small scale. Both methods are ideal for students undertaking projects with an emphasis on experimental design, accurate and consistent data collection, hypothesis testing and statistical analysis alongside concepts such as Ballantine's scale of exposure.	Workbook, digital camera, Pocket PC, profiling equipment, 100cm quadrat, 10cm quadrat, identification sheets and books, bug pots	 Osmington Beach	AQA Applied Science GCE AS/A2: A2 Unit 16 Ecology, Conservation and Recycling: The type and populations of organisms that live in a habitat, The relationships of organisms with their physical and biological environment. AQA Biology GCE AS/A level: 3.2 Unit 2: BIOL2 The variety of living organisms: 3.2.11. 3.4 Unit 4 BIOL4 Populations and environment: 3.4.1; 3.7 How Science Works: A, B, C, D, E, F, G, H. AQA Environmental Studies GCE AS/A level: Unit 1 ENVS1 The Living Environment: 3.1.2, 3.1.3, 3.1.5; 3.5 How Science Works AQA Biology GCE AS/A Level: 3.4 Genetic information, variation and relationships between organisms 3.4.6 / 3.7 Genetics, populations, evolution and ecosystems 3.7.
Psammoseral Succession	A Nature Reserve system is an ideal location for studying the abiotic and biotic factors of succession over sand and the factors that affect this process. Opportunities are provided to study different approaches to sustainable development and how humans impact upon succession. Data analysis and statistical tests can be used to complete a report on the investigation.	Workbook, digital camera, Pocket PC, infiltration kit, pH kit, soil thermometer, moisture meter, profiling kit, quadrat, plant ID guides, pocket ID books, anemometer	 Studland Bay	AQA Applied Science GCE AS/A2: A2 Unit 16 Ecology, Conservation and Recycling: The type and populations of organisms that live in a habitat, The relationships of organisms with their physical and biological environment. AQA Biology GCE AS/A level: 3.2 Unit 2: BIOL2 The variety of living organisms: 3.2.11; 3.4 Unit 4 BIOL4 Populations and environment: 3.4.1, 3.4.7; 3.6 Unit 6 Investigative and Practical Skills in A2 Biology: 3.6.1, 3.6.2, 3.6.3, 3.6.4; 3.7 How Science Works: A, B, C, D, E, F, G, H. AQA Environmental Studies GCE AS/A level: Unit 1 ENVS1 The Living Environment: 3.1.2, 3.1.3, 3.1.4, 3.1.5; 3.5 How Science Works. AQA Geography GCE AS/A level: Unit 3 GEOG3 Contemporary Geographical Issues: The Physical Options: Ecosystems: Change and Challenge; Unit 4A GEO4A Geography Fieldwork Investigation. AQA Biology GCE AS/A Level: 3.4 Genetic information, variation and relationships between organisms 3.4.6 / 3.5 Energy transfers in and between organisms 3.5.4 / 3.7 Genetics, populations, evolution and ecosystems 3.7.
Stream Ecology	Students investigate how a river changes along its course from source to mouth, focusing on the change in invertebrate communities. Kick and sweep sampling is employed alongside identification keys, and students record their findings on pocket computers. Digital photographs help to identify sample sites, and the reasons for changes along the river, pollution levels, land use and management are examined fully.	Workbook, Pocket PC, digital camera, channel profile kit, flow meters, sediment roundness chart, pH meters, sweep nets, bug pots, identification books and sheets	 River Wey	AQA Biology GCE AS/A level: 3.2 Unit 2: BIOL2 The variety of living organisms: 3.2.11; 3.4 Unit 4 BIOL4 Populations and environment: 3.4.1; 3.6 Unit 6 Investigative and Practical Skills in A2 Biology: 3.6.1, 3.6.2, 3.6.3, 3.6.4; 3.7 How Science Works: A, B, C, D, E, F, G, H. AQA Environmental Studies GCE AS/A level: Unit 1 ENVS1 The Living Environment: 3.1.2, 3.1.3, 3.1.5; Unit 3 ENVS3 Energy Resources and Environmental Pollution: 3.3.2; 3.5 How Science Works AQA Biology GCE AS/A Level: 3.4 Genetic information, variation and relationships between organisms 3.4.6 / 3.7 Genetics, populations, evolution and ecosystems 3.7.