The Durlston Guillemots

Introduction

The lesson unit looks at the Guillemot colony at Durlston Country Park. Using the provided resources pupils are encouraged to look at how Guillemots are adapted for their lifestyle, the advantages and disadvantages of living on a cliff and how their life cycle is adapted to ensure breeding success. As an extension more able pupils should be encouraged to use this information to suggest threats to the Guillemots and conservation methods to ensure the survival of the colony. The unit should take between one and two lessons (approximately two hours).

The lesson matches with elements of the Science National Curriculum. The lesson would fit into Schemes of Work:

Unit 5B: Life Cycles

Through this unit children learn that plants and animals reproduce as part of their life cycle and that in every life cycle there are distinct processes and stages. They should begin to understand how reproduction is important to the survival of the species.

Experimental and investigative work focuses on:

- making observations and comparisons
- drawing conclusions

Unit 6A: Interdependence and Adaptation

In this unit children extend their knowledge of the way in which plants and animals in different habitats depend upon each other and are suited to their environment. They relate feeding relationships to knowledge of plant nutrition.

Experimental and investigative work focuses on:

- making careful observations and measurements
- using results to draw conclusions and suggesting explanations for these using scientific knowledge and understanding

Work in this unit also offers children opportunities to explain feeding relationships in a habitat in terms of scientific knowledge and understanding and to consider ways in which the living things and the environment need protection.

Learning Objectives and Outcomes Pupils should be taught…	Lesson structure	Useful website links
Science 1 – Scientific Enquiry … to use observations, measurements and other data to draw conclusions. **Science 2 – Life and Living Processes** … to make links between life processes in familiar animals and plants and the environment in which they are found. … about different animals and plants found in different habitats. At the end of the unit all pupils should be able to: •List three adaptations that help a Guillemot be adapted to its environment. •State the main stages of the guillemot life cycle. Most pupils should be able to: •List the advantages and disadvantages of living on a cliff. •Describe the key times and events in the Guillemots' life cycle. Some pupils should be able to: •Describe the threats that the Guillemots could face during the course of their life. •Suggest conservation methods that would	**Starter:** (5 mins) Working in pairs, pupils should look at the starter sheet and try and answer the questions. After five minutes bring the class together and ask groups to feed back their ideas. (*Differentiation by support)* **Main:** **Activity 1** (20 mins) Provide pupils with copies of the Guillemot Sheets. For brighter pupils there is a copy with just the picture, for most pupils there is a sheet with prompts about what to focus on and for less able pupils there is an additional sheet which has the key points on. These can be written on the main sheet or cut out and stuck on. (*Differentiation by resource)* **Activity 2** (30 mins) The pupil information sheet, "The Durlston Guillemots" is a narrative by "Tufty", one of the Durlston Guillemots. It explains the life cycle of the bird. The exercise uses this sheet as the basis of a DART (Directed activity related to text) exercise. Each pair of students should have the information sheet and three coloured pencils. The pair should read the information sheet	The website for Durlston Country Park: www.durlston.co.uk During the breeding season (April – July) the Park operates a live camera that looks at the breeding colony. The images can be viewed live at the Visitors' Centre or on the website where there is a live feed that is updated every 30 seconds. The website has details of the park and has a facility to allow a virtual tour of the site looking at the wildlife, habitats, history and management. The Park runs a full education programme and sessions can be booked through the website.

help ensure the survival of the Durlston colony. **Assessment criteria** **Level 2** Pupils working around level 2 should be able to describe obvious adaptations (simple webbed feet for swimming). They should be able to list the basic stages of the Guillemot life cycle (adult mate – egg laid – chick hatches – young fledge – birds leave the cliff – young birds mature). **Level 3** Pupils working at this level should e able to identify and describe most of the ways in which the Guillemot is adapted to its life style (feet, beak, shape in which an animal is suited to its environment). They should begin to describe the life cycle more fully and assign times to the different stages. **Level 4** Pupils working at this level should be able to identify and fully describe how the Guillemot is physically adapted to its lifestyle. They should be able to describe the advantages of living on the cliff. They should be able to describe the stages in the life style and suggest why certain stages occur when they do (moulting at sea and leaving the ledge at night for protection. **Level 5** Pupils working at this level should be able to describe how the guillemot is physically	and underline any information about when an event (e.g. laying eggs) happens in one colour. Using another colour they should label any fact about the Guillemot (e.g. egg shape) Using the third colour the pupils read the sheet and underline any information about places. *(Differentiation by support)* Pupils then use this information to fill in the life cycle worksheets. There are 3 versions of this sheet. The sheet for the most able pupils has blanks boxes to fill in. The sheet for most pupils to fill in has some information in the boxes to fill in. The sheet for the less able pupils has the contents of the boxes to cut out and stick on the outline sheet. *(Differentiation by resource)* **Activity 3** (60 mins) This exercise brings together the work that the pupils have been carrying out and allows them to choose which task they wish to carry out. The prompt sheet uses Tufty to introduce the tasks. *(Differentiation by task)* **Plenary:** (10 mins)	

adapted and how its life style helps its cope with its environment. They should be able to list advantages and disadvantages to life on the cliffs. They should be able to fully describe the Guillemot's life cycle and how this helps them survive. They should be able to identify environmental threats to the Guillemot based on the information they have found out. **Level 6 (exceptional performance)** Pupils working at this level should be able to compare the similarities and differences between how a Guillemot is adapted to its environment and other marine creatures (e.g. Dolphins, other seabirds, fish). They should be able to identify strengths and weaknesses in how its life cycle helps it breed successfully. They should be able to identify environmental threats to Guillemots and suggest actions that would overcome these threats. They should also be able to describe other threats to the marine environment based on their own knowledge.	**Option1** Pupils can work individually or in small groups. Using the concept of FAQ's (frequently asked questions) that often appear on websites etc. they should write four questions that would help someone understand about the life of the Guillemots. **Option 2** Show pupils the pictures of three animals found at Durlston (Dolphin, Seal and Kestrel). Ask pupils to write how they think these animals are adapted to live in their environment.	