



**Year: 8**

**Subject: Science**

**Topic: Ecosystems**

Knowledge and Understanding to be developed:

Pupils use and develop their skills, knowledge and understanding by investigating how humans are independent yet rely on other organisms for survival, applying this to life in countries with different levels of economic development.

**Homework:**

Work through Ecosystems booklet

Lessons		Skills/practicals
<b>Lesson 1: Variation</b>		<p><b>Practical:</b></p> <p><b>Duck weed habitat</b></p>
State what is meant by the term 'habitat'		
<p>Name some animals and the type of habitat they would live in</p> <p>Pupils investigate the preferred habitat of duckweed</p>		
<p>Numeracy</p> <p>Draw conclusion from data KS3.19 construct and select appropriate charts ks3.15 Present answers to a given number of significant figures 8N15a Measure to complete a task KS5</p>	<p>Literacy</p> <p>Summarise and synthesise information Response and analysis 8.RA3 Distinguish between bias and objectivity Response and analysis 8.RA4 in planning writing make choices about language and purpose to suit the audience meaning purposes readers8.WM3 Use whole text structure to support and communicate meaning structure and organisation8WS1 select analyse and present ideas information convincingly objectively structure and organisation8.WS2 use technical terms language expression consistent with subject content language 8.WL2</p>	
<b>Lesson 2 Representing data</b>		<p>Pupils plot a scatter graph of data</p>
<p>Pupils learn what data can tell us and how to represent it in a scatter graph</p> <p>Identify variation between organisms of the same type and of different types</p> <p>Give examples of continuous and discontinuous variation</p>		
<b>Lesson 3/4 Adaptation and seasonal and daily changes</b>		
<p>Know that characteristics are inherited from parents know that some characteristics are determined by our environment</p> <p>Describe difference between inherited and environmental variation &amp; give examples</p> <p>describe how environmental variation can be caused</p> <p>Explain the adaptations of some organisms for daily and seasonal changes.</p>		
<b>Lesson 5/6 Food Chains</b>		
<p>Draw and label food chains</p> <p>Draw and interpret food webs</p> <p>Explain how energy is lost transferred in a food web/chain</p> <p>Explain the impact of pesticides and chemicals on a food chain/web</p>		
<b>Lesson 7 : Measuring Biodiversity</b>		<p><b>Practical:</b></p> <p><b>Quadratting and sampling practice</b></p>
<p>Pupils take part in a technique to measure the biodiversity of and area/ or the green triangle (for example)</p>		
<b>Lessons 8: Pyramids of number</b>		
<p>sketch a pyramid of numbers and a food chain for the organisms</p>		