

# Year 7: ASK Yourself!

Subject: Science

Unit 7.9: Variation for survival

	Launching 1-2	Developing 3-4	Progressing 5-6	Mastering 7-9
<b>S</b> kills				
	<p>I need to explain whether characteristics are inherited, environmental or both.</p> <p>I need to plot bar charts or line graphs to show discontinuous or continuous variation data.</p>	<p>I can partially explain how variation helps a particular species in a changing environment.</p> <p>I can partially explain how a lack of biodiversity can affect an ecosystem.</p> <p>I can partially use a diagram to show how genes are inherited.</p>	<p>I can partially explain how characteristics of a species are adapted to particular environmental conditions.</p> <p>I can partially use evidence to explain why a species has become extinct or adapted to changing conditions.</p>	<p>I can expertly use the ideas of variation to explain why one species may adapt better than another to environmental change.</p> <p>I can expertly suggest an explanation, based on data, for how a particular evolutionary change occurred.</p>
<b>K</b> knowledge				
	<p>I need to know that there is variation between individuals of the same species.</p> <p>Some variation is inherited, some is caused by the environment and some is a combination.</p> <p>I need to know that natural selection is a theory that explains how species evolve and why extinction occurs.</p>	<p>I partially know that variation between individuals is important for the survival of a species, helping it to avoid extinction in an always changing environment.</p> <p>I partially know that biodiversity is vital to maintaining populations.</p> <p>Within a species variation helps against environment changes, avoiding extinction.</p>	<p>I confidently know that inherited characteristics are the result of genetic information, in the form of sections of DNA called genes, being transferred from parents to offspring during reproduction.</p>	<p>I understand that chromosomes are long pieces of DNA which contain many genes. Gametes, carrying half the total number of chromosomes of each parent, combine during fertilisation.</p>