



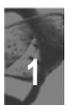
# Progression ladder

Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

Tick the boxes that apply.

Or use traffic lights to show how confident you are (red = 'I don't know this'; orange = 'I'm not very confident about this'; green = 'I'm confident I can do this').

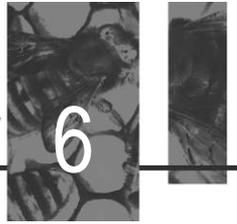
Level	At the end of the section	I can do this	I need more work on this
5	Identify the main characteristics of organisms in the five kingdoms and their subgroups, including phylum, class, order, family, genus and species.		
5	Define the term 'species' as a group of similar organisms that can interbreed.		
5	Describe examples of variation caused by inherited and/or environmental factors, and identify examples of continuous variation.		
5	Describe the link between DNA, chromosomes and genes.		
5	Define the term 'allele'.		
5	Describe how sex is inherited in humans.		
5	Describe fossils as the preserved remains of organisms that lived millions of years ago.		
5	Describe evolution as the change of organisms over time.		
5	Draw conclusions from patterns in results and describe how to evaluate a conclusion.		
6	Create an identification key for a group of organisms using visible characteristics.		
6	Explain how the characteristics of groups of organisms limit which environments they can inhabit.		
6	Explain why organisms within a species show less variation than organisms in different species.		
6	Explain how sex inheritance in humans always results in one of two options.		
6	Describe the difference between dominant and recessive alleles and their effect on the characteristics of an organism.		
6	Use a Punnett diagram to identify possible offspring from a simple cross.		





Level	At the end of the section	I can do this	I need more work on this
6	Explain how fossils can be formed from the remains of dead organisms.		
5	Describe natural selection as the survival or death of organisms depending on how well they are adapted to the environment.		
5	Describe the link between natural selection and evolution.		
5	Recognise that variation must be present before natural selection can bring about evolutionary change.		
5	Explain whether the evidence is sufficient for the conclusion given in research.		
7	Explain how genetic and environmental factors can lead to variation in organisms.		
7	Use a Punnett diagram to explain the proportions of possible offspring from a simple genetic cross.		
7	Explain how evolution can lead to the formation of new species.		
7	Describe how conclusions can be distorted as a result of limitations in the data collected.		
8	Explain why variation (in genetics and anatomy) must be present before natural selection can lead to evolutionary change.		
8	Explain natural selection in terms of the interaction between the environment and variation in organisms.		
8	Explain how conclusions of other scientists have been distorted as a result of limitations in their data.		
8	Recognise that the theory of evolution is based on a great deal of evidence of different types drawn from a range of biological disciplines (DNA, biochemistry, fossils, anatomy, geological record, etc) and that they all point to the same general conclusion.		
8	Describe the opposition that Darwin faced when he published his theory of evolution, and attribute this to the prevailing social and religious norms of the day as well as the limited biological knowledge (genetics, DNA, biochemistry, mutations) which was accepted by the scientific community.		





Level	At the end of the section	I can do this	I need more work on this
EP	Explain why evolutionary theory was poorly received when it was initially published because of the prevailing religious sensibilities which held that creation theory could account for the variation in living organisms.		
EP	Explain why the evidence for evolutionary theory points to a consistent conclusion, but also describe how the evidence is incomplete in parts but is continuously being added to.		

