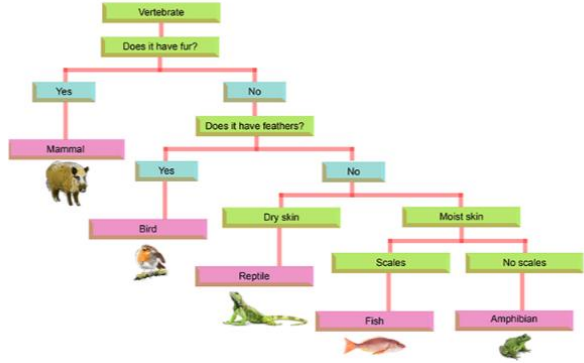


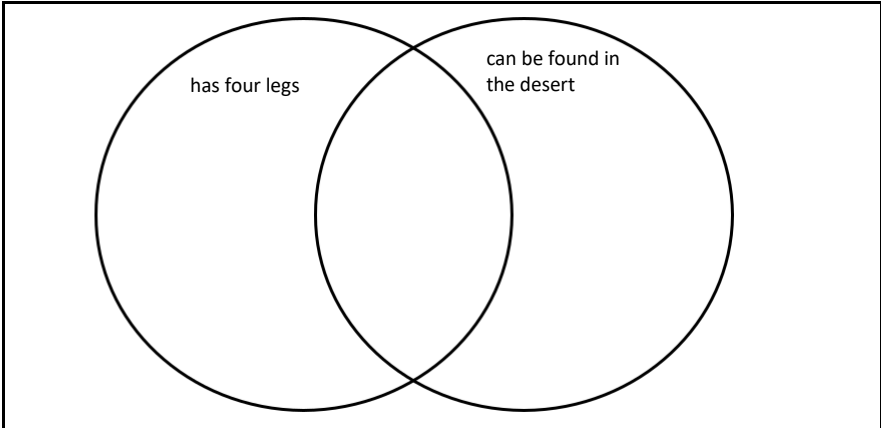
St. Veronica's Primary School – Science Knowledge Organiser

Topic: Living things and their habitats	Year: 4	Strand: Biology																																															
What should I already know? Animals can be grouped into vertebrates (and then further into fish, reptiles, amphibians, birds and mammals) and invertebrates Animals can be grouped into carnivores, herbivores and omnivores The differences between the teeth of carnivores and herbivores. The names of some common wild and garden plants and deciduous and evergreen trees. Examples of habitats (including microhabitats) and the animals and plants that can be found there. Living things depend on each other to survive. How food chains and food webs work. How land use has changed over time and the effects this has on the environment (e.g. urban development)	What will I know by the end of the unit? How can living things be grouped? All living things, which can also be called organisms, have to do certain things to stay alive. These are the life processes: movement respiration sensitivity growth reproduction excretion nutrition  Living things can be grouped according to different criteria (where they live, what type of organism they are, what features they have). For example, a camel can belong in a group of vertebrates, a group of animals that live in the desert, and a group of animals that have four legs.																																																
Vocabulary <table><tr><td>biomes</td><td>a natural area of vegetation and animals</td></tr><tr><td>carnivore</td><td>an animal that eats meat</td></tr><tr><td>classification key</td><td>a system which divides things into groups or types</td></tr><tr><td>criteria</td><td>a factor on which something is judged</td></tr><tr><td>deciduous</td><td>trees that lose leaves in the autumn every year</td></tr><tr><td>environment</td><td>all the circumstances, people, things, and events around them that influence their life</td></tr><tr><td>evergreen</td><td>a tree or bush which has green leaves all the year round</td></tr><tr><td>excretion</td><td>the process of eliminating waste from the body</td></tr><tr><td>food chain</td><td>a series of living things which are linked to each other because each thing feeds on the one next to it in the series</td></tr><tr><td>habitat</td><td>the natural environment in which an animal or plant normally lives or grows</td></tr><tr><td>herbivore</td><td>an animal that only eats plants</td></tr><tr><td>invertebrate</td><td>a creature that does not have a spine, for example an insect, a worm, or an octopus</td></tr><tr><td>life processes</td><td>There are seven processes that tell us that living things are alive</td></tr><tr><td>microhabitat</td><td>a small part of the environment that supports a habitat, such as a fallen log in a forest</td></tr><tr><td>minibeast</td><td>a small invertebrate animal such as an insect or spider</td></tr><tr><td>nutrition</td><td>the process of taking food into the body and absorbing the nutrients in those foods</td></tr><tr><td>omnivore</td><td>person or animal eats all kinds of food, including both meat and plants</td></tr><tr><td>organism</td><td>a living thing</td></tr><tr><td>reproduction</td><td>when an animal or plant produces one or more individuals similar to itself</td></tr><tr><td>respiration</td><td>process of respiring; breathing ; inhaling and exhaling air</td></tr><tr><td>sensitivity</td><td>responding to the external environment</td></tr><tr><td>urban</td><td>belonging to, or relating to, a town or city</td></tr><tr><td>vegetation</td><td>plants, trees and flowers</td></tr><tr><td>vertebrate</td><td>a creature which has a spine</td></tr></table>	biomes	a natural area of vegetation and animals	carnivore	an animal that eats meat	classification key	a system which divides things into groups or types	criteria	a factor on which something is judged	deciduous	trees that lose leaves in the autumn every year	environment	all the circumstances, people, things, and events around them that influence their life	evergreen	a tree or bush which has green leaves all the year round	excretion	the process of eliminating waste from the body	food chain	a series of living things which are linked to each other because each thing feeds on the one next to it in the series	habitat	the natural environment in which an animal or plant normally lives or grows	herbivore	an animal that only eats plants	invertebrate	a creature that does not have a spine, for example an insect, a worm, or an octopus	life processes	There are seven processes that tell us that living things are alive	microhabitat	a small part of the environment that supports a habitat , such as a fallen log in a forest	minibeast	a small invertebrate animal such as an insect or spider	nutrition	the process of taking food into the body and absorbing the nutrients in those foods	omnivore	person or animal eats all kinds of food, including both meat and plants	organism	a living thing	reproduction	when an animal or plant produces one or more individuals similar to itself	respiration	process of respiring; breathing ; inhaling and exhaling air	sensitivity	responding to the external environment	urban	belonging to, or relating to, a town or city	vegetation	plants , trees and flowers	vertebrate	a creature which has a spine	What is a classification key? A classification key is a tool that is used to group living things to help us identify them. 
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Investigate! Complete Venn diagrams to show if living things can be grouped into two or more groups . Use criteria to sort living things in a Carroll diagram. Sort vertebrate and invertebrate animals into groups, describing their key features. Use a classification key to identify which group of vertebrates animals belong to and then create your own. Sort plants into groups (e.g. flowering plants and non-flowering plants) and then create a classification key to help others identify plants. Carefully observe minibeasts in a microhabitat and use a classification key to identify them. Use simple computer software programmes to create a branching classification key. Explore examples of human impact (both positive and negative) on environments.	How can environments change? Habitats can change throughout the year and this can have an effect on the plants and animals that live there. Humans can have positive and negative effects on the environment: positive effects: nature reserves, ecological parks negative effects: litter, urban development																																																

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Question 1: Which of these is not a vertebrate?	Start of unit:	End of unit:	Question 2: A duck and a fish are similar because...(tick three)	Start of unit:	End of unit:
bird			they are both vertebrates		
mammal			they both need food and water to survive		
reptile			they both breathe using gills		
insect			they are both invertebrates		
amphibian			they both lay eggs		

Question 3: Write the word of each living thing in the Venn diagram to show where they belong.	Start of unit:	End of unit:
 camel  cactus  polar bear  whale		

Question 4: Write the word of each living thing in the Carroll diagram to show where they belong.	Start of unit:	End of unit:									
 salmon  sparrow  rabbit  frog	<table border="1"> <tr> <td></td><td>can fly</td><td>can not fly</td></tr> <tr> <td>lays eggs</td><td></td><td></td></tr> <tr> <td>does not lay eggs</td><td></td><td></td></tr> </table>		can fly	can not fly	lays eggs			does not lay eggs			
	can fly	can not fly									
lays eggs											
does not lay eggs											

Question 5: Complete the table by adding the name of the minibeast in the right place.	Start of unit:	End of unit:															
 fly  spider  worm  ants																	
<table border="1"> <tr> <td>name</td><td>legs</td><td>wings</td></tr> <tr> <td></td><td>6</td><td>0</td></tr> <tr> <td></td><td>0</td><td>0</td></tr> <tr> <td></td><td>8</td><td>0</td></tr> <tr> <td></td><td>6</td><td>2</td></tr> </table>	name	legs	wings		6	0		0	0		8	0		6	2		
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Question 6: Which three things do all animals do?	Start of unit:	End of unit:
move		
walk		
reproduce		
grow		

Question 7: What can we use to help us accurately identify living things?	Start of unit:	End of unit:
a food chain		
looking after the environment		
a classification key		
living processes		

Question 8: Name one thing that makes these animals similar and one thing that makes them different.	 swan	 owl	Start of unit:	End of unit:				
<table><tr><td>similar</td><td>different</td></tr><tr><td></td><td></td></tr></table>	similar	different						
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Question 9: Look at the following classification key. Which question belongs in each box?	Start of unit:	End of unit:								
Does the animal lay eggs? Yes No Box 1 Box 2 Yes No Box 3 frog giraffe cow Yes No owl penguin <table><tr><th>Question</th><th>Box Number (1, 2 or 3)</th></tr><tr><td>Does the animal have a long neck?</td><td></td></tr><tr><td>Is the animal a bird?</td><td></td></tr><tr><td>Does the animal fly?</td><td></td></tr></table>	Question	Box Number (1, 2 or 3)	Does the animal have a long neck?		Is the animal a bird?		Does the animal fly?			
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Is the animal a bird?										
Does the animal fly?										

Question 10: List one way in which we help the local environment.	Start of unit:	End of unit: