Year group 6 - Living things and their habitats

The learning objectives to be covered:

Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals.

Give reasons for classifying plants and animals based on specific characteristics.

Common misconceptions:

- all microorganisms are harmful
- mushrooms are plants.

	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	
Science Knowledge LO:	To know the characteristics of different types of animal	To know who Carl Linnaeus was and how he used his classification system.	To understand what is meant by a branching key and how these are used	To know different types of invertebrates and explain their characteristics.	To know different flowering and non- flowering plants and use these to classify.	To know different types of microorganism	To know how to use data to make conclusions

Scientific Enquiry LO	To identify and group animals based on their characteristics	To research Carl Linnaeus and his classification system	To identify and create a branching key to classify vertebrates	To identify and describe some characteristics of vertebrates and invertebrates	To identify and describe the characteristics of flowering and non flowering plants	To investigate helpful and harmful microorganisms	To use data to form conclusions
Vocab to be covered	Classify, sort, group, similarities, differences, compare.	Carl Linnaeus, Linnaean, classification, standard, domain, kingdom, phylum, class, order, family, genus, species.	Characteristic classify Classification Invertebrate Vertebrate Branching key fish, amphibians, reptiles, birds, mammals.	Carl Linnaeus, Linnaean, classification, standard, domain, kingdom, phylum, class, order, family, genus, species.	Flowering plant, non flowering plant, paired statement key, pollination.	Microorganism, fungus, bacteria, virus, microscopic, mould, hypothesis	Microorganism, fungus, bacteria, virus, microscopic, mould, conclusion

Assessment	WTS: Children	WTS: With support,	WTS: With support,	WTS: With support,	WTS: With support,	WTS: With support, I	WTS: With support,
	can sort less	children can discuss	children can discuss	children can design	children can discuss	children can decide	children can record
	animals with	Carl Linnaeus and	how to use a	an animal and	flowering and non	how to plan and	their data and use
	support into	how his system works.	branching key and	discuss its features.	flowering plants.	carry out a simple	this to discuss their
	already decided		how they could split			investigation and	findings.
	categories.	EXS: Children can	vertebrates using this.	EXS: Children can	EXS: Children can	discuss this with an	
		research the work of		design an animal	identify flowering	adult.	EXS: Children can
	EXS: Children	Carl Linnaeus and	EXS: Children can use	using the knowledge	and non flowering		record their data
	can sort 32	how his classification	a branching key to	of what invertebrates	plants.	EXS: Children can	and use this to share
	animals into	system has been used	identify 8 given	and vertebrates		decide how to plan	with them their
	groups with 2	for living things.	vertebrates	have.	GDS: Children can	and carry out a	conclusion to a given
	groups already				identify flowering	simple investigation	question.
	decided for	GDS: Children can	GDS: Children can	GDS: Children can	and non-flowering	and begin to follow	
	them.	research the work of	independently use	design an animal	plants and use these	simple steps for this.	GDS: Children can
		Carl Linnaeus and	their knowledge of	using the knowledge	in a classification		record their data
	GDS: Children	how his classification	branching keys and	of what invertebrates	key.	GDS: Children can	and use this to share
	can	system has been used	choose 8 vertebrates	and vertebrates		decide how to plan	with them their
	independently	for living things.	to sort.	have. Children are		and carry out a	conclusion to a given
	identify how to	Children can present		able to talk about		simple investigation.	question. Children
	split the animals	their findings to others		this in detail and also		Children can take	can identify where
	into groups and	and make reference		talk about this as part		control and	improvements were
	use their	to animals within		of the Linnean		recognise how they	needed to improve
	characteristics	specific kingdoms.		system.		are going to record	the validity of the
	as reasoning for					this data including	investigation.
	this.					graphs and charts.	

Activities	Bia Question:	Bia Question: How can	Bia Question: How	Bia auestion: What	Bia auestion: What	Bia auestion: What	
	How can	we classify living	can we use a	are the features of	do vou already know	are microorganisms?	Begin by revisiting
	vertebrates be	things?	branchina key to	vertebrates and	about flowering and	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	the bread from last
	classified?		classify vertebrates?	invertebrates?	non-flowering plants?	Beain by explaining	week's investigation.
		Plants come in many	· · · · · · · · · · · · · · · · · · ·			what microorganisms	
	You can also	shapes and sizes.	Investigate Spread	Children discuss the	Why are the flowers	are. Discuss	Children look at their
	classify animals	What makes plants	out about 10	different features of	of some plants	helpful/harmful.	findings to make
	as vertebrates –	different from	different liquorice	both vertebrates and	brightly coloured		conclusions on their
	with a	animals? Watch this	allsorts. Talk or think	invertebrates.	and those of other	Matching activity -	given question.
	backbone, or	short BBC clip about	about their features:		plants a dull green or	children could	
	invertebrates –	plants	 Round or square? 	Whole class explores	brown? - Insect-	match the helpful	Once again,
	without a	https://www.bbc.co.u	 Number of different 	one animal together	pollinated plants	and harmful	encourage
	backbone.	k/bitesize/clips/z2k4d2	colours?	such as a platypus	usually have	microorganisms.	independence with
		Þ	 Smooth or rough 	and looks at its	coloured petals.		this.
	Watch BBC		surface?	features. What	Many trees and	On the side of the	
	bitesize to find			animal group do we	grasses have dull,	room put a variety of	
	out whether	Watch this clip about		think this belongs to?	hanging flowers as	materials for the	
	ladybirds, crabs	Carl Linnaeus. He was	Move on to using the		they rely on the wind	children to look at.	
	or tortoises have	an eighteenth century	branching key to	Children design their	for pollination. Using		
	a backbone.	scientist interested in	identify vertebrates.	own creature with an	the PowerPoint	Different types of	
	https://www.bbc	organising plants and		accompanying	explore examples of	bread (longer	
	.co.uk/bitesize/t	animals into groups.	For example:	factfile to	non-flowering plants.	life/shorter life)	
	<u>opics/zn22pv4/a</u>	He wasn't successful	Birds and mammals	describe/show their	Explain how a paired	Different bags	
	<u>rticles/z8mbqhv</u>	the first time!	are warm blooded;	creature. They use	statement key works		
		https://www.tigtagwor	fish, reptiles and	their understanding	using the PowerPoint.	Encourage children	
	https://www.bbc	<u>ld.co.uk/film/carl-</u>	amphibians are cold	of the different	Activity: use a paired	to think about what	
	<u>.co.uk/bitesize/t</u>	<u>linnaeus-PRM00688/</u>	blooded.	features to talk	statement key to	we could test when	
	<u>opics/zn22pv4/a</u>		Fish and reptiles have	about their creature	classify hazel tree,	thinking about	
	<u>rticles/zp6g7p3</u>	Provide the children	scales; birds,	and give reasons for	buttercup, bracken,	bacteria.	
		with the picture cards	mammals and	the choices they	moss, spruce free		
	Explore the	ask them to classify	amphibians do not.	make.	and grass.	Examples -	
	characteristics	these living things by					
	that help classify	grouping into Animals,	Vertebrates can be			Does the	
	vertebrates. For	Plants and Fungi /	classified using a			temperature impact	
	example, birds	Microorganisms	branching key. Think			the amount of	
	are warm		about some			bacteria that grows?	
	blooded, lay	Give children	questions you could				
	eggs with hard	something living that	ask when making a			Does the type of	
	snells and have	they have to research	key for vertebrates.			pread impact?	
	teathers.	and explain how it fits					

Activity: Create a mind map of the five	into the Linnaean system.	Activity: Create a branching key for a mammal, a fish, a reptile and a bird.		etc	