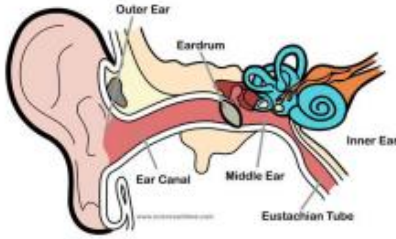
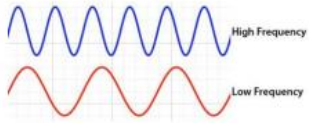



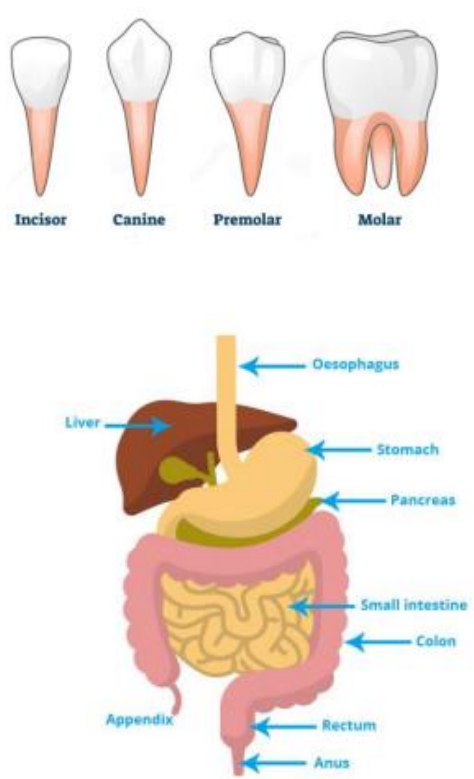
Year 4 Autumn 1: Science Knowledge Mat

Sound

Key Vocabulary		Images/ diagrams	Core Knowledge
frequency	A measure of how many times per second the sound wave cycles.	  	<ul style="list-style-type: none"> ➤ I know how to identify how sounds are made, associating some of them with something vibrating ➤ I know how to recognise that vibrations from sound travel through a medium to the ear ➤ I know how to find patterns between the pitch of a sound and features of the object that produced it ➤ I know how to find patterns between the volume of a sound and the strength of the vibrations that produced it ➤ I know how to recognise that sounds get fainter as the distance from the sound source increases.
medium	The transfer of energy from one location to another.		
pitch	How high or low a sound is.		
power	Power is energy that is obtained from a fuel source and used to operate lights, heating, and machinery		
sound waves	Invisible waves that travel through air, water, and solids as vibrations.		
source	Where something comes from.		
transmit	To pass from one place or person to another.		
travel	How something moves around.		
vibrations	Invisible waves that move quickly.		
volume	How loud or quiet a sound is.		

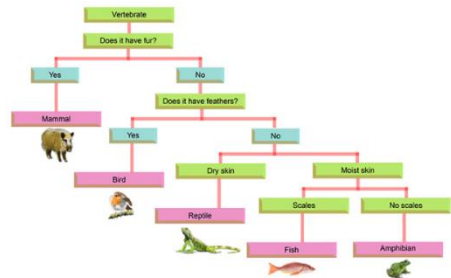

Year 4 Spring 1: Science Knowledge Mat

Animals Including Humans

Key Vocabulary		Images/ diagrams	Core Knowledge
digestion	The process by which the stomach and intestines change food into a form that the body can use as energy.	 <p>The top diagram shows four types of human teeth: Incisor, Canine, Premolar, and Molar. The bottom diagram shows the human digestive system with labels: Oesophagus, Liver, Stomach, Pancreas, Small intestine, Colon, Appendix, Rectum, and Anus.</p>	<ul style="list-style-type: none"> ➤ To know how to identify and name the parts of the human digestive system. ➤ To know the functions of the organs in the human digestive system. ➤ -To know the different types of human teeth and identify them. ➤ To know the functions of different human teeth. ➤ To know how to use and construct food chains to identify producers, predators and prey.
intestine	Intestines are organs, or body parts, that are shaped like long tubes. They help break down food so that the body can use it for energy.		
incisors	A tooth for cutting.		
canines	A pointed tooth next to the incisors used for tearing.		
molars	A large tooth near the back of the mouth with a broad surface used for grinding.		
premolar	A double-pointed tooth that comes between the canines and molars.		
prey	An animal that is hunted or killed by another animal for food.		
producer	Plants are called producers because they produce their own food.		
predator	An animal that lives mostly by killing and eating other animals.		
food chain	The order in which organisms, or living things, depend on each other for food.		

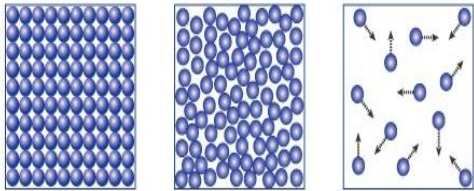
Year 4 Spring 2: Science Knowledge Mat

Living things and their habitats

Key Vocabulary		Images/ diagrams	Core Knowledge
Climate	The weather conditions <u>prevailing</u> in an area in general or over a long period.	 	<ul style="list-style-type: none"> ➤ To use classification keys to group, identify and name living things ➤ To know how changes to an environment could endanger living things ➤ To identify how the local habitat changes over time ➤ To use classification keys to differentiate between closely related animals
Classification Key	A series of questions that determine an organism's physical characteristics.		
Species	A group of similar living organisms capable of exchanging genes or <u>interbreeding</u> .		
Habitat	The natural home or environment of an animal, plant, or other <u>organism</u> .		
Extinction	The fact of a species, family, or other group of animals or plants no longer existing.		
Carnivore	An animal or person that only eats meat.		
Omnivore	An animal or person that eats a variety of food of both plant and animal origin.		
Herbivore	An animal or person that only eats plants.		

Year 4 Summer 1: Science Knowledge Mat

States of Matter

Key Vocabulary		Images/ diagrams	Core Knowledge
States of matter	A state of matter is one of the forms in which matter can exist. Three states of matter are often found in everyday life: solid, liquid and gas.	 <p>Solid Liquid Gas</p>	<ul style="list-style-type: none"> ➤ I know the temperature at which materials change state ➤ I know about and explore how some materials can change state ➤ I know the part played by evaporation and condensation in the water cycle ➤ I know if water always melts at the same speed. ➤ I know how to observe and record as ice melts in different conditions and record data. ➤ I know how to observe and record evaporation in different temperatures over time and record data.
Solid	A firm shape which retains its shape and volume such as metal.		
Liquid	A substance that can be poured and flows and retains its volume but not shape such as water.		
Gas	A substance that has not set volume or shape and moves independently such as oxygen.		
Melting	The process of a solid turning into a liquid.		
Evaporation	The process of a liquid turning into a gas.		
Freezing	The process of a liquid turning into a solid.		
Condense	The process of a gas turning into a liquid.		

