

	<b>Autumn 1: The Human body</b>
Lesson 1	<p>LO: Cells are the building blocks of the human body and we need nutrition to keep our bodies working as they should.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know All living things are made up of cells, too small to be seen without a microscope.</li> <li>• I know our bodies require nutrients to keep healthy.</li> <li>• I know nutrients are found in the food we eat.</li> </ul>
Lesson 2	<p>LO: Identify the different types of teeth in humans and their simple functions.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know there are four main different types of teeth: incisors, canines, pre-molars and molars.</li> <li>• I know incisors cut, canines tear, premolars crush, molars grind food</li> <li>• I know humans have teeth for ripping and for grinding because we are omnivores</li> </ul>
Lesson 3	<p>LO: To know how food is digested and excreted</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know the stomach stirs up the food and mixes it with acid</li> <li>• I know the intestines move the food around.</li> <li>• I know the small intestine is a long coiled up tube that winds around inside your tummy.</li> <li>• I know whilst in the intestine, the nutrients are absorbed by the blood</li> </ul>
Lesson 4	<p>LO: To know a healthy diet keeps our bodies healthy.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know our diet should include lots of different types of food.</li> <li>• I know our diet needs to provide all the nutrients our bodies need.</li> <li>• I know sugars are already naturally produced in many foods, such as fruit</li> </ul>
Lesson 5	<p>LO: To understand the essential vitamins and minerals needed in our body</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know vitamins and minerals are important nutrients.</li> <li>• I know many vitamins and minerals are found in our food.</li> <li>• I know your body needs the mineral iron to build blood cells, and calcium for strong bones and nails.</li> </ul>
Lesson 6	<p>LO: To design a balanced meal or explain digestion</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know all living things are made up of cells, too small to be seen without a microscope. Cells make up tissues. Tissues make up organs. Organs work in systems. Scientist use a powerful magnifying glass, called a microscope, to look at cells.</li> <li>• I know signals are sent from the brain to the salivary glands and then to the stomach. You have different teeth that have different jobs. The stomach stirs up the food and mixes it with acid, The intestines move the food around. The small intestine is a long coiled up tube that winds around inside your tummy. Whilst in the intestine, the nutrients are absorbed by the blood.</li> <li>• I know that they need a balanced meal to be healthy and get all the nutrients they need. Understanding the parts of the food pyramid. To know the essential vitamins and minerals needed in our body</li> </ul>

	<b>Autumn 2: States of matter</b>
Lesson 1	<p>LO: To know that there are three main states of matter: solid, liquid and gas.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know there are three states of matter that water can form: solids, liquids and gases.</li> <li>• I know water exists in these states of matter in nature.</li> <li>• I know water can change into each state in both directions, we call this the Water Cycle.</li> </ul>
Lesson 2	<p>LO: To know that evaporation occurs when water turns into gas.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know water evaporates from all water sources (puddles, lakes, oceans even a cup).</li> <li>• I know when water evaporates, it becomes water vapour.</li> <li>• I know the amount of water in the air is called humidity.</li> </ul>
Lesson 3	<p>LO: To know that condensation occurs when water vapour turns into liquid water. (gas into water)</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know that condensation is when water vapour turns back into liquid.</li> <li>• I know that high in the sky the air is cooler and turns vapour back into water droplets.</li> <li>• I know there is always water vapour in the air and the temperature changes its appearance.</li> </ul>
Lesson 4	<p>LO: To know that precipitation returns water to the surface of the Earth.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know clouds are formed of millions of water droplets or ice particles if the air is very cold, their shape, size and colour can tell us what the weather will be like.</li> <li>• I know when the water droplets get large enough, often in dark cumulonimbus or nimbostratus clouds they precipitate and fall as rain, sleet, hail or snow.</li> <li>• I know that precipitation returns water to the surface of the earth within the water cycle.</li> </ul>
Lesson 5	<p>LO: To know how water changes state within the water cycle.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know that water evaporates from all water sources (puddles, lakes, oceans even a cup).</li> <li>• I know that condensation is when water vapour turns back into liquid.</li> <li>• I know that precipitation returns water to the surface of the earth within the water cycle</li> </ul>
Lesson 6	<p>LO: To know that water changes state within the water cycle.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know water evaporates, it becomes water vapor.</li> <li>• I know condensation is when water vapour turns back into liquid.</li> <li>• I know not all water evaporates and that some of this will soak into the ground and become groundwater.</li> <li>• I know high in the sky the air is cooler and turns vapour back into water droplets.</li> <li>• I know there is always water vapour in the air and the temperature changes its appearance. Precipitation returns water to the surface of the earth within the water cycle.</li> </ul>

	<b>Spring 1: Electricity</b>
Lesson 1	<p>LO: To know that electricity is useful, but it can also be very dangerous.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know electricity can be very dangerous.</li> <li>• I know we must use electricity safely to make sure it is not a danger to us.</li> <li>• I know we can use electricity safely by; not putting fingers in plug sockets, not using electrical items with wet hands and checking that wires are not frayed.</li> </ul>
Lesson 2	<p>LO: To construct an electrical circuit.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know an electrical circuit is a loop that allows electricity to travel around it.</li> <li>• I know an electrical circuit must have wires and a battery.</li> <li>• I know if a circuit is broken, electricity will not be able to flow around it.</li> </ul>
Lesson 3	<p>LO: To know switches open and close a circuit.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know a switch opens and closes a circuit.</li> <li>• I know opening a circuit prevents electricity from flowing.</li> <li>• I know sometimes we need to stop electricity from flowing for safety reasons, switches help to do this.</li> </ul>
Lesson 4	<p>LO: To know that the lightbulb was a very important invention.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know Thomas Edison invented the first lightbulb suitable to use in homes.</li> <li>• I know Lewis Latimer invented a lightbulb that could last for a long time.</li> <li>• I know a long time ago, electric lighting was used in streetlights before it was used in people's homes.</li> </ul>
Lesson 5	<p>LO: To identify materials that conduct electricity.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know materials that allow electricity to pass through them are conductors.</li> <li>• I know materials that do not allow electricity to pass through them are insulators.</li> <li>• I know many, but not all metals conduct electricity.</li> </ul>
Lesson 6	<p>LO: To know that electricity flows around a circuit and can make components, such as a light bulb, work</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know electricity is an energy that we can store or use to make things work.</li> <li>• I know an electrical circuit is a wire loop that allows electricity to travel around it.</li> <li>• I know materials that allow electricity to pass through them are conductors.</li> </ul>

	<b>Spring 2: Sound</b>
Lesson 1	<p>LO: To understand how sound is produced and how it travels</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know sound is caused by a back and forth movement called vibration</li> <li>• I know sound waves move out from a vibrating object</li> <li>• I know sound can travel through different types of matter Sound is fainter further from the source</li> </ul>
Lesson 2	<p>LO: To know sound travels through the air.</p> <p>Success criteria:</p> <p>I know in warm air, sound travels at about 340 metres per second.</p> <p>I know the speed of sound in water is about four times faster than in air.</p> <p>I know there are jet aeroplanes that can travel as fast as sound.</p>
Lesson 3	<p>LO: To know the difference between pitch and volume.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know loud sounds are made by big vibrations.</li> <li>• I know more energy is needed to make louder sounds.</li> <li>• I know quiet sounds are made by small vibrations.</li> <li>• I know more vibrations every second makes higher pitched sounds.</li> </ul>
Lesson 4	<p>LO: To understand how the human voice makes different sounds.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know when you sing a high note, your vocal cords vibrate very fast, hundreds of times a second. When you sing a low note, your vocal cords vibrate more slowly.</li> <li>• I know faster vibrations make a sound with a higher pitch.</li> <li>• I know slower vibrations make a sound with a lower pitch.</li> <li>• I know the larynx is in the throat and the muscles vibrate the vocal cords.</li> </ul>
Lesson 5	<p>LO: Vibrations in sound waves travel through the different parts of the ear.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know we hear sounds when sound waves enter our ear, travel through it and messages are sent to our brain.</li> <li>• I know the structure of the ear includes ear drum, bones called the hammer, anvil, and stirrup, cochlea.</li> <li>• I know hairs inside the cochlea are connected to nerves that carry the signals to the brain.</li> </ul>
Lesson 6	<p>LO: To show my knowledge and understanding of sound</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know sound is caused by a back and forth movement called vibration.</li> <li>• I know sound waves move out from a vibrating object in all directions.</li> <li>• I know in warm air, sound travels at about 770 miles per hour (340 metres per second).</li> <li>• I know sound becomes quieter further from the source. Loud sounds have larger vibrations. Quiet sounds have smaller vibrations. High pitched sounds have faster vibrations. Low pitched sounds have slower vibrations. The larynx is in the throat and the muscles vibrate the vocal cords.</li> <li>• I know the structure of the ear includes many vibrating parts: ear drum, bones, cochlea.</li> </ul>

	<b>Summer 2: Classification of Plants and Animals</b>
Lesson 1	<p>LO: To know that living things depend on their habitat.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know there are seven life processes which living things all have in common.</li> <li>• I know a habitat is the natural home or environment of an animal, plant, or other organism.</li> <li>• I know living things depend on each other within their habitat.</li> </ul>
Lesson 2	<p>LO: To understand that living things are linked within a food chain.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know a producer makes their own food using sunlight, water and nutrients.</li> <li>• I know a consumer eats other living things to gain their energy.</li> <li>• I know a decomposer breaks down the remains of dead living things into smaller pieces which leaves nutrients in the soil.</li> </ul>
Lesson 3	<p>LO: To know that living things depend on each other in an ecosystem.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know an ecosystem is the interaction of organisms in their environment.</li> <li>• I know every ecosystem is very delicately balanced, so if one organism is removed or a new one introduced it can have a negative impact on other organisms.</li> <li>• I know human beings are part of many ecosystems and things that we do can affect them greatly.</li> </ul>
Lesson 4	<p>LO: To understand that air pollution is a human threat to the environment.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know pollution is any substance that is introduced into an environment that can damage or affect quality of life.</li> <li>• I know exhaust and smoke often contain harmful chemicals that pollute the air.</li> <li>• I know air pollution can damage ecosystems.</li> </ul>
Lesson 5	<p>LO: To know how humans have changed the environment in our local area.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know humans have made an impact on our local environment.</li> <li>• I know humans make choices which impact our environment.</li> </ul>
Lesson 6	<p>LO: To show my knowledge and understanding of ecology.</p> <p>Success criteria:</p> <ul style="list-style-type: none"> <li>• I know that living things depend on each other within a habitat.</li> <li>• I know the 7 life processes which living things have in common: Movement; Reproduction; Sensitivity; Growth; Respiration; Excretion; Nutrition.</li> <li>• I know the three groups of living things which the cycle of nature depends on: producers, consumers and decomposers.</li> <li>• I recognise that environments can change and that this can sometimes pose dangers to living things.</li> </ul>