

Be Brave, Be
Curious, Be Kind

Lesson Breakdown - Science



Autumn – Cycle B – LKS2

Prior Learning – EYFS – PSED curriculum

- try new activities and look after their basic hygiene needs
- learning about the importance of good oral hygiene
- knowledge of looking after their hygiene as they explore the importance of handwashing

Prior Learning – KS1

- create a human timeline showing the different stages of growth
- sort healthy foods and understand healthy amounts relative food type
- understand the importance of exercise and design their own circuit
- understand the importance of keeping clean and how do this daily
- design a timetable of the day that shows healthy choices for food, exercise and hygiene

Project: <u>Animals,</u> <u>including</u> <u>humans</u>	Learning Objective	Skills	Knowledge	Resources
Engage Lesson 1	To explore and name different types of teeth. describe the simple functions of the basic parts of the digestive system in humans identify the different types of teeth in humans and their simple functions	Draw and label different parts of the human mouth.	Understand that teeth are the first step in the digestive system.	
Develop Lesson 2	To explain how carnivores, herbivores and omnivores	Compare and describe features between different animals.	Recall that carnivores eat only meat, herbivores eat only plants and omnivores eat a mix. The shapes and sizes of these animals vary depending on their diet.	

	<p>use their teeth in different ways.</p> <p>describe the simple functions of the basic parts of the digestive system in humans</p> <p>identify the different types of teeth in humans and their simple functions</p>			
Develop Lesson 3	<p>To describe the basic functions of a human digestive system.</p> <p>identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat</p>	Explore and understand different structures in the body.	Understand what are the key organs in the digestive system and their roles. The organs of the digestive system are the mouth, oesophagus, stomach, pancreas, liver, gallbladder, small intestine, large intestine and anus.	•
Develop Lesson 4	<p>To construct and interpret a variety of food chains.</p> <p>identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat</p>	Compare different organisms' roles in the food chain.	<p>Understand that a food chain is a series of organisms each dependent on the next as a source of food.</p> <p>Understand that different organisms can fulfil different roles in food chains.</p>	

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	construct and interpret a variety of food chains, identifying producers, predators and prey			
Innovate Lesson 5	To investigate how poo is made. describe the simple functions of the basic parts of the digestive system in humans	Apply scientific understanding to investigation into the digestive system. Create working models of digestive systems.	Understand what are the key organs in the digestive system and their roles. The organs of the digestive system are the mouth, oesophagus, stomach, pancreas, liver, gallbladder, small intestine, large intestine and anus.	
Express Lesson 6: Assessment	To be able to recall knowledge from this project.	n/a	n/a	n/a

Key Vocabulary:

anus canine canines chew	digestion digestive system evidence	faeces gullet incisor	incisors intestine jaw	large intestine molar mouth	nutrition oesophagus poo	question rectum saliva	small intestine stomach teeth
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Prior Learning – n/a

Unit is only taught at LKS2 level

Project: Sound	Learning Objective	Skills	Knowledge	Resources
Engage Lesson 1	To explore how vibrations cause sound (sound walk) identify how sounds are made, associating some of them with something vibrating	Ask relevant questions and use different types of scientific enquiries to answer them. Use straightforward scientific evidence to answer questions or to support their findings.	Sounds are made when objects vibrate. The vibration makes the air around the object vibrate and the air vibrations enter your ear. You hear them as sounds.	
Develop Lesson 2	To understand how sound travels. recognise that vibrations from sounds travel through a medium to the ear	Understand that sound is made through vibrations from a source. Research how sound travels. Know that sound travels through different mediums, including air, water and solids.	Sound waves travel through the air and faster through liquids and solids. The waves transfer energy from the source of the sound, e.g. a drum, to its surroundings. Your ear detects sound waves when vibrating air particles cause your ear drum to vibrate.	•
Develop Lesson 3	To investigate why the volume of sound changes. find patterns between the volume of a sound and the strength of the vibrations that produced it	Understand that sound is a form of energy and will know that the more energy that is put into creating a sound, the louder the sound that is made. Look for patterns between the pitch of a sound and features of the object that produced it.	Loud sounds are carried by waves that have a higher amplitude (height between peak and trough) than quiet sounds. The bigger the amplitude of a sound wave, the louder it sounds to our ears.	•
Develop Lesson 4	To understand how we can reduce sound.	Begin to understand some of the workings of the human ear.	There are several basic approaches to reducing sound: increasing the distance between source and receiver, using noise barriers to reflect or absorb the energy of the sound	•

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	recognise that sounds get fainter as the distance from the sound source increases	Consider some of the ways we try to reduce the sounds that we hear.	waves, using damping structures such as sound baffles, or using active antinoise sound generators.	
Innovate Lesson 5	To design and create ear defenders using previous knowledge. find patterns between the volume of a sound and the strength of the vibrations that produced it recognise that sounds get fainter as the distance from the sound source increases	Work in a group to plan an investigation that will find out which material will best reduce sound. With help, consider the different variables of their test and plan how to ensure their investigation is fair. Record the results of the investigation and use the results to draw a conclusion.	There are several basic approaches to reducing sound: increasing the distance between source and receiver, using noise barriers to reflect or absorb the energy of the sound waves, using damping structures such as sound baffles, or using active antinoise sound generators.	
Express Lesson 7: Assessment	To be able to recall knowledge from this project.	n/a	n/a	n/a

Key Vocabulary:

amplitude ears factor fair-test	frequency hear investigation listen	loud loudness muffle	noise pitch planning	prediction quiet resources	results sign language silent	sound sound waves soundwave	variable vibrations volume
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