

Grindon Infant Science Medium Term Planning – Year 2 Animals including Humans

End of Unit Goals

Pupils will be able to:

- Notice that animals, including humans, have offspring which grow into adults
- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)
- Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

Prior Knowledge

Can classify into vertebrate (groups) & invertebrates. Can classify into carnivores, herbivore & omnivores (Animals Yr1)

Can link 5 senses to sense organs (Animals Yr1)

Knows 7 processes of life – growth, nutrition (Living things Yr2)

Habitat provides basic needs – water, heat, food (Living Yr2)

Plant life cycle (comparative stages) (Plants Yr2)

Matter exists as solids, liquids & gases (Materials Yr2)

Skill Objectives

Explaining Science			Data, Tables & Graphs		
I use & remember science words during an activity	I use & remember science words over a short time	I use & remember science words I have used before	I measure numbers with a number track	I measure labelled divisions on a number line	I measure unlabelled divisions on a number line
I use science to describe what is happening	I use science to describe & recall what I have seen	I begin to use science models to describe	I use a simple table recording in words & numbers	I use a simple table recording in words & numbers (inc. tally)	I use a frame to construct a simple table of results
I add science word labels to diagrams	I add science labels & information (help) to diagrams	I add science labels & information to diagrams	I use a frame to add to pictograms & block charts	I construct pictograms & block charts	I use a frame to construct a bar chart

Enquiry Types



Researching



Finding Patterns



Observing over time



Fair testing

Key Vocabulary

Baby, offspring, toddler, child, adolescent, teenager, adult, reproduction, growth, water, hydrated, food, nutrition, diet, balanced, air, oxygen, breathing, respiration, exercise, fitness, heart rate, pulse, hygiene, microbes (bacteria, viruses, fungi), number track, number line, division, table of results, cause, effect, pictogram, block, block chart, bar, bar chart, axes, coordinate.

Important Scientists



Maurice Hilleman (1919-2005) American scientist who developed the MMR vaccine that greatly reduced childhood deaths for measles, mumps and rubella. In 2010 Andrew Wakefield falsely linked MMR with autism. This is still causing significant harm through reduced vaccinations by worried parents.



Joseph Lister (1827-1912) British Doctor who revolutionised surgery by using antiseptics (carbolic acid) to prevent infections. He used Louis Pasteur's earlier 'germ theory' in his work. His results though weren't without problems – carbolic acid is toxic.

Common Misconceptions

All baby animals are little versions of their parents. Animals only need food & water to live. Some animals, like worms, eat soil. Fats are bad for you. Dieting & fruit drinks are good for you. Running is bad for your knees. Exercise can overcome a bad diet. Exercise takes too much time. Exercise needs to hurt for you to get fit. Everyone knows how to wash their hands.

Session	Knowledge Objective	Skill Objective	Enquiry Opportunities	Extension Opportunities	SEN
1	WOW- Change for Life Visit (Smoothie Making) Explore and discuss skills and knowledge that will be covered in unit.				
2	What happens as we grow?	I can recognise different stages of the life cycle.	Recap Link to Y1 coverage Main Provide small groups of children with pictures of humans at different stages.	Construct own table and headings	Pre-teach vocabulary for stages. Provide with labels for

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			<p>(baby, toddler, teenager). What order can we put them in? What labels can we use? Allow time for chn to label different stages. Provide with word bank to support. What is different about each stage? Discuss each stage.</p> <p>Plenary Stages game. Give definition of stage and children give the name of the stage to reinforce vocabulary.</p> <p>Key Vocabulary Growth, baby, toddler, child, teenager, adult,</p>		different stages to cut and stick.
2	What happens as we grow?	I can use a simple table to record numbers.	<p>Recap Work in small groups to record as many stages learned from previous session.</p> <p>Main Investigate e.g. handspan, arm length, foot length (Will get longer as we get older?)- Allow opportunity for chn to discuss what we could investigate. Take ideas from chn and set up investigation e.g. When we grow our handspan gets wider. Chn to measure handspan of chn in Reception, Y1 and Y2. How can we record the results? Show chn table. Chn complete a simple table to record measurements.</p> <p>Plenary Discuss what the table shows. Provide with stem sentences to support.</p> <p>Key Vocabulary Growth, baby, toddler, child, teenager, adult, handspan. measure</p>	Describe the variation.	Support with measuring and reading scale.
3	What do we need to survive?	I can sort foods into different groups.	<p>Recap Recap processes of life from previous unit. Can you recall Mrs Gren? What do we need to survive. Discuss. (Food, water, oxygen). What happens if we don't get these?</p> <p>Main Go through ppt. Introduce a balanced diet. Why do we need it? What foods should we eat a lot of, small amount of etc, use</p>	Describe why it's important to have carbohydrates, protein etc. Use stem sentences and word bank to support.	<p>Pre-teach vocabulary using widgets.</p> <p>Provide with only 2 sorting criteria.</p>

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			<p>food pyramid to look at this and introduce the children to the vocabulary for different food groups (carbohydrates, fruit and vegetables, proteins, fats and sugars. Chn sort food pictures into three groups, eat lot of, more, least.</p> <p>Key Vocab Water, food (nutrition) air (breathing, respiration, balanced, obesity, starvation</p> <p>Plenary Recap groups. Why do we need _? Discuss Chn to keep food diary for a week for next session of making block graph. Clip to watch https://www.youtube.com/watch?v=sQN8HWI6Svk</p>		
4	What do we need to survive?	I can make a block graph.	<p>Recap Why do we need a balanced diet. What food groups can we name? Why do we need _?</p> <p>Main Model using 2simple graph tool to make block graph of fruit eaten over a week. Chn make block graph using 2simple graph tool to show the number of fruit eaten each day using the diary.</p> <p>Plenary What does our block graph show us? Discuss</p> <p>Key Vocabulary Block graph, most/least popular</p>	<p>Chn to answer questions about block graph. Which day did you eat the most fruit? Which day did you eat the least fruit?</p>	<p>Pre-teach fruits using widgeits. Have real life examples.</p>
5	How can we be more healthy?	I can label what happens to my body before and after exercise.	<p>Recap What have we been learning over the past few sessions?</p> <p>Main Focus upon how children are in a rested position. Discuss. Think about heart, face, skin, legs and breathing before exercise. Talk about our pulse and what it is. How does it feel when we are rested? Allow time for chn to feel their pulse.</p>		<p>Pre-teach vocabulary Provide with before/after exercise table and main areas to look at for the body changing. Provide with a word bank of words to choose from</p>

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			<p>Chn stick picture of themselves into book and label body before exercise.</p> <p>Get chn to carry out different exercises. How do you feel now? Take pulse – what is happening? Why?</p> <p>Chn label themselves about what has happened to their body after exercise.</p> <p>Plenary What new word have you learned from this session? Discuss</p> <p>Key Vocab exercise, fitness (heart rate/pulse), lungs</p>		
6	How can we be more healthy?	I can construct and use a tally chart table.	<p>Recap What happens to our body when we exercise?</p> <p>Main What is our favourite type of exercise? Discuss. How can we show this? Model showing our favourite exercise in a tally chart.</p> <p>Plenary Which is the most popular/least popular exercise?</p> <p>Key Vocabulary Tally chart, exercise</p>	Explain in a sentence which is the most popular/least popular exercise	Adult support to read exercises and guidance with marking tallies.
7	Why is it important to be clean?	I can recognise ways to keep clean. I can observe and record	<p>Recap</p> <p>Main Using ppt discuss ways of keeping clean. Make class mind map and add to working wall. Carry out experiment using one table for each image to record for.. Put glitter on hand. Record: Hand before cleaning Hand after wiping with a paper towel Hand after washing in cold water Hand after washing in warm water</p> <p>Chn explain what happened using stem sentences:</p> <p>When the hand wasn't clean it was ___fully___ covered with glitter.</p>		<p>Pre-teach vocab with widgeits.</p> <p>Verbally describe to adult . Adult to scribe.</p>

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			<p>When the hand was wiped with a paper towel it was <u>half</u> covered with glitter. When the hand was washed with cold water it was <u>partially</u> covered with glitter. When the hand was washed in warm water and soap it had <u>no</u> glitter on.</p> <p>Plenary Finish lesson with chn in circle. Each child shakes hand with child next to them to demonstrate how bugs are passed around when we touch each other.</p> <p>Key Vocabulary hygiene, microbes (bacteria, fungi, viruses)</p>		
<p>Useful Texts, Website & Resources Purple Mash- 2simple graph Ready Steady Mo! Oliver's Fruit Salad- Vivian Frensh & Alison Bartlett Keeping my body healthy- https://www.youtube.com/watch?v=sQN8HWI6Svk</p>					