

Science

Animals, including Humans Year 5

Remember when

Grouped animals by vertebrates, invertebrates, fish, reptiles, amphibians, birds and mammals. (Y1/Y2/Y4)

Life cycles (including those of plants and humans) (Y2)

Reproduction and growth are two of the seven life processes. (Y3/Y4)

Healthy lifestyles include healthy eating, exercise and personal hygiene. (Y2/Y3/Y4)

Sticky knowledge

- The life cycle of a human has 6 stages including foetus, baby, child, adolescence, adulthood and old age.
- Humans have a gestation period of around 40 weeks. Different animals have different gestation periods for example an elephant's lasts about 22 months whilst a squirrel lasts only about six weeks.
- Children will know that babies grow rapidly and depend on their parents
- Children will know that at puberty a child's body changes: boys grow hair and get a deeper voice. Girls develop breasts and start menstruating
- Children will know that in old age people's hair goes grey, bones become brittle, skin becomes wrinkly and you can get liver spots

Key vocabulary

adolescence
adulthood
baby
child
development
elderly / old age
embryo
foetus
gestation
growth
humans
puberty
reproduction
womb

National Curriculum

Describe the changes as humans develop to old age.

Common Misconceptions

Some children may think:

- a baby grows in a mother's tummy
- a baby is "made"

Enquiry Questions

LO	Knowledge and Skills	Lesson outline
<p>Lesson 1</p> <p>LO: To understand the stages of human development.</p> <p>Enquiry Type: Grouping and classifying/ Research</p>	<p>Sticky Knowledge: The life cycle of a human has 6 stages including foetus, baby, child, adolescence, adulthood and old age.</p> <p>Skill: Record data and results of increasing complexity using scientific diagrams and labels</p>	<p>Children to order a human life cycle in groups using photographs of real people.</p> <p>Go over the different stages in the human lifecycle, what changes happen and why? At which stages does a human develop most? Is the life cycle linear (does the old person have a baby, or is it a younger adult?)</p> <p>Time line of changes</p> <p>LA- timeline, cut and stick.</p> <p>ARE - Draw and create and explain</p> <p>GD- changes in each stage.</p>
<p>Lesson 2</p> <p>LO: To understand how babies develop in the womb.</p> <p>Enquiry Type: Pattern Seeking</p>	<p>Sticky Knowledge: Children will know that babies grow rapidly and depend on their parents</p> <p>Skill: Record data and results of increasing complexity using line graphs</p>	<p>Recap stages of human life and the life cycle from last lesson. What can we remember?</p> <p>Show diagram of the growth of babies, and data about growth, size, etc. What do you notice about this?</p> <p>What does the data show us?</p> <p>Children to create graphs to represent the data given. Cross curricular maths links (representing and interpreting data.</p> <p>LA - TA support basic bar graph.</p> <p>ARE - comparison graphs</p> <p>GD - analysis of data.</p>
<p>Lesson 3</p> <p>LO: To be able to compare the gestations of different animals.</p>	<p>Sticky Knowledge: Humans have a gestation period of around 40 weeks. Different animals have different gestation periods for example an elephant's lasts about 22 months</p>	<p>Recap Year 2 – animals have offspring that grow into adults.</p> <p>Compare how different animals reproduce and grow using prompt questions:</p> <p>Do all animals give birth to live young or lay eggs?</p>

<p>Enquiry Type: Pattern Seeking</p>	<p>whilst a squirrel lasts only about six weeks.</p> <p>Skill: Record data and results of increasing complexity using scatter graphs</p>	<p>Why do some animals lay more eggs than they need?</p> <p>Can any male animals have babies?</p> <p>How do interesting animals (seahorses, sharks, stick insects, freshwater turtles) have babies?</p> <p>Focus question: Are all animals pregnant for the same length of time? Does this correlate to the size of the animal.</p> <p>Children should research the gestation periods of each animal and record in their own way (pupil-led).</p> <p>LA – Order animals according to size, then according to gestation period. What do they notice?</p> <p>GD – Create a line graph to show the pattern, in addition to however they choose to record the information.</p>	
<p>Lesson 4</p> <p>LO: To understand how boys change in adolescence.</p> <p>Enquiry Type: Research</p>	<p>Sticky Knowledge: Children will know that at puberty a child’s body changes: boys grow hair and get a deeper voice.</p> <p>Skill: Record data and results of increasing complexity using scientific diagrams and labels</p>	<p>What is puberty? Puberty quiz to see what we can remember.</p> <p>What can you remember from previous years (Jigsaw – Changing Me). Specifically – what changes do boys go through during puberty?</p> <p>Discuss the changes and answer any (appropriate) questions the children may have.</p> <p>LA - fill in the label the sheet using the words</p> <p>ARE - Label the male body using the key words.</p> <p>GD- label the male body and explain.</p>	
<p>Lesson 5</p> <p>LO: To understand how girls change in adolescence.</p> <p>Enquiry Type: Research</p>	<p>Sticky Knowledge: Children will know that at puberty a child’s body changes: Girls develop breasts and start menstruating</p> <p>Skill: Record data and results of increasing complexity using scientific diagrams and labels</p>	<p>What is puberty? What can you remember from previous years (Jigsaw – Changing Me). Specifically – what changes do girls go through during puberty?</p> <p>Discuss the changes and answer any (appropriate) questions the children may have.</p> <p>LA - fill in the label the sheet using the words</p> <p>ARE - Label the female body using the key words.</p> <p>GD- label the female body and explain.</p> <p>Puberty quiz to see what we have learned.</p>	
<p>Lesson 6</p> <p>LO: To understand how humans change in old age.</p> <p>Enquiry Type: Observation</p>	<p>Sticky Knowledge: Children will know that in old age people’s hair goes grey, bones become brittle, skin becomes wrinkly and you can get liver spots</p> <p>Skill: Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</p>	<p>Old age- what is it? What happens?</p> <p>Whole class discussing about physical changes and other changes that happen as people develop into old age.</p> <p>True or false quiz – what actually happens when we get old?</p> <p>Show.time lapse video of what happens when we get old. – liver spots, wrinkles, shrinking</p> <p>Create a “Preparing for old age” poster displaying the changes that happen. Mixed ability task.</p> <p>90 Years Old in Less Than 3 Minutes (morph sequence) - YouTube</p>	
<p>Working towards</p>	<p>End of unit assessment Working at Age related expectations</p>		<p>Working at a greater depth</p>

