

Subject Knowledge Organiser - Animals Including Humans - Year 5

What I have already learnt (Year 4)

- 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
- construct and interpret a variety of food chains, identifying producers, predators and prey

Key Concepts/Strands

- Biology
- Chemistry
- Physics
- Scientific Enquiry
- Science for the future

What I will have learnt by the end of the unit

- describe the changes as humans develop to old age

Key Knowledge

- Muscle mass decreases and muscles lose strength.
- Wrinkles develop on the skin, and it loses its elasticity.
- Hair begins to turn grey/ white. Many people begin to lose the hair on their heads (mainly men).
- People begin to shrink in height as bones and cartilage become worn down.
- Organs begin to lose their effectiveness, and the senses (e.g. sight, hearing, etc.) become weaker.

What are the main stages of the human life cycle?

foetus - an unborn animal or human being in the very early stages of development

newborn - this is a baby that has just been born.

infancy - this is a period of rapid change. Many toddlers learn to walk and talk at this stage.

childhood - children learn new things as they grow. They become more independent.

adolescence - this is when the body starts to change and prepare itself for adulthood. Hormonal changes take place over a few years. This is also known as puberty.

early adulthood - this is when humans are usually at their fittest and strongest.

middle adulthood - changes such as hair loss may happen. There are also some hormonal changes again and the ability to reproduce decreases.

late adulthood - there is a decline in fitness and strength. What is puberty? •

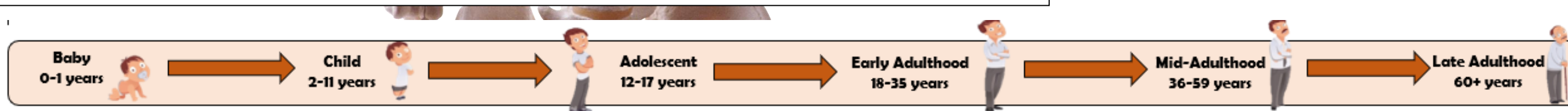
Puberty is the change that happens in late childhood and adolescence where the body starts to change because of hormones. • Some changes include growth in height, more sweat, hair growth on arms and legs, under the armpits and on genitals, and growth in parts of the body such as male genitals and breasts. Females begin to menstruate.

What I will have learnt by the end of my Key Stage

- identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood
- recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function
- describe the ways in which nutrients and water are transported within animals, including humans

Key Skills I Will Learn/Use

- planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate
- recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs
- using test results to make predictions to set up further comparative and fair tests
- reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations
- identifying scientific evidence that has been used to support or refute ideas or arguments



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KEY VOCABULARY

Vocabulary	
adolescence	the period of your life in which you develop from being a child into being an adult
adulthood	the state of being an adult
development	the gradual growth or formation of something
foetus	an animal or human being in its later stages of development before it is born
genitals	the reproductive organs
gestation	the process in which babies grow inside their mother's body before they are born
growth	an increase in something
hormones	a chemical, usually occurring naturally in your body, that makes an organ of your body do something
independent	If someone is independent , they do not need help or money from anyone else.
infancy	the period of your life when you are a very young child
life cycle	the series of changes that an animal or plant passes through from the beginning of its life until its death
life processes	There are seven processes that tell us that living things are alive
mature	When a child or young animal matures , it becomes an adult
menopause	the time during which a woman gradually stops menstruating , usually when she is about fifty years old
menstruation	the approximately monthly discharge of blood by non-pregnant women from puberty to the menopause
offspring	a person's children or an animal's young
organ	a part of your body that has a particular purpose
puberty	the stage in someone's life when their body starts to become physically mature
rapid	A rapid change is one that happens very quickly
reproduction	when an animal or plant produces one or more individuals similar to itself
toddler	a young child who has only just learned to walk
vertebrate	a creature which has a spine






My Skills and Knowledge that I may use from other subjects

Literacy- I can use my literacy knowledge to write about my findings

Mathematics- I can use my measuring skills to carry out simple tests and record my findings using diagrams and graphs

Geography- I can use my knowledge about animals and their habitats in different countries around the world.

Growth and Development of Animals

Humans	House Mice	African Elephants	Saltwater Crocodiles	Blue Whales
Gestation Period: 9 months	Gestation Period: 20 days	Gestation Period: 22 months	Gestation Period: 2-3 months	Gestation Period: 10-12 months
Sexual Maturity: 11-17 years	Sexual Maturity: 4-6 weeks	Sexual Maturity: 10-12 years	Sexual Maturity: 10-12 years	Sexual Maturity: 10 years
Life Expectancy: 80 years	Life Expectancy: 1 year	Life Expectancy: 60 years	Life Expectancy: 70 years	Life Expectancy: 90 years
				

Recall and remember

:Place these in order in which they happen using numbers 1-4

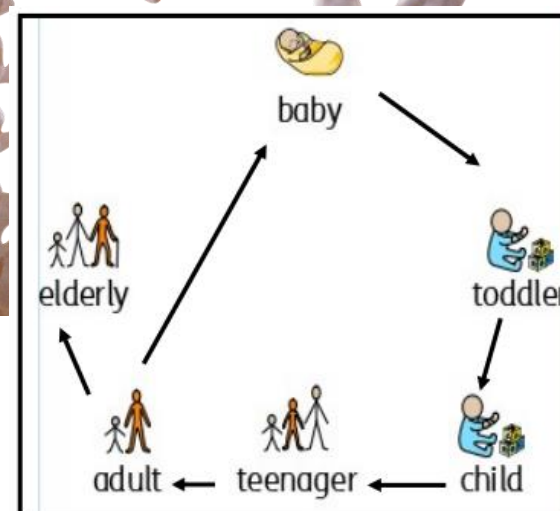
adolescent newborn adulthood toddler

Which life process happens when adults produce offspring?

growth reproduction movement nutrition

Name three things that happen during puberty.

Name a time in a human's life when there is rapid change. Give an example of something that happens during that time.



Opportunities for teaching Diversity, Equality (including protected characteristics) and expanding Cultural Capital

Get to meet a scientist! Explore people who use science in their jobs.

- I'm a Scientist, Get me out of here! - A super-curricular science outreach education & engagement activity (imascientist.org.uk)
- Science for Everyone (science4everyone.org)