

**National Curriculum Objectives:**

- Describe the changes as humans develop to old age

**Key Vocabulary:** Foetus, Embryo, Womb, Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty, Hormone, Physical, Emotional

**Lesson 1: Human Lifecycle**

**Identify & Classify**

**Enquiry Question – What are the different stages in the human life cycle?**



Pose questions for the children to consider: how are you different to a baby? How are you different to a teenager? How is a teenager different to an adult? How are you different to an elderly adult? Encourage the chn to think about their looks, how they act, what they can and can't do. Discuss the main stages of human growth. Show How do humans change during their lifetime? Chn to read a text on the human life cycle and to use this to support them in drawing and labelling their own. Provide a safe space/box for children to ask or write any questions they may have about the changes.

**Working Scientifically Skills:** asking questions – asking questions about the stages of the human lifecycle, recording data – draw and label a scientific diagram of the human lifecycle

**Key Knowledge:** humans change as they age, children can describe the changes to humans as they age

**Lesson 2: Gestation**

**Research & Observation over time**

**Enquiry Question – How does a foetus develop?**



Introduce the terms foetus, embryo and gestation and ask if the children know what these mean. Chn to research a range of animals (gestation, life span, number of offspring per pregnancy, size of animal) and to present their findings in a table. Chn to create a graph using the information they have gathered. Teach chn about the changes in a human foetus as pregnancy progresses. Discuss the three trimesters, viable pregnancies, premature births. What makes a healthy pregnancy (smoking, alcohol, drugs).

Ch to create a timeline showing how a foetus develops in the womb.

How the human body grows  
Stages of foetal development

**Working Scientifically Skills:** recording data – draw a bar graph to show gestation period to compare different animals, draw a timeline to show foetal development

**Key Knowledge:** different animals have different gestation periods, chn know the different stages of foetal development

**Lesson 3: Child Development**

**Enquiry Type**

**Enquiry Question – How does a child change as it grows?**



Show the chn pictures of different children at different ages (birth – 10) and ask them to discuss what they see. Discuss milestones and how these are different for each child. Ask the chn what they think chn should be able to do at different stages in their life cycle e.g ride a bike on the road, feed themselves, stay home alone etc. Chn to order different activities and suggest an age at which these can be done.

Chn to investigate the question – The older you are, the taller you are.

**\*child led investigation**

**Working Scientifically Skills:** making predictions – using prior knowledge to suggest an answer to the question, observing & measuring – using equipment to take measurements using standard units, recording data – construct and record data in a complex table, drawing conclusions – discuss whether the evidence supports their prediction

**Key Knowledge:** children reach different milestones as they grow and they become more independent as they get older

**Prior learning:**

In Year 4 the children learnt to:

- 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.

**Future Learning:**

In Year 6 the children will learn to:

- 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.

**Working Scientifically Skills:**

- Asking questions
- Making predictions
- Setting up tests
- Observing and measuring
- Recording data
- Interpreting and communicating results
- Evaluating

**Things to include each half term:**

- 1 x active learning
- 1 x outdoor science lesson
- 3 x experiments/investigations
- 1 x child-led investigation
- 3 x enquiry type lesson

**Science Display:**

Enquiry types  
Photographs  
Vocabulary

**Lesson 4: Puberty**

**Enquiry Question – How do we change through puberty?**

Chn to discuss the changes they have already gone through from birth to now. Provide the chn with information about puberty and they are to play fact or fiction (Twinkl PPT).

Discuss the changes and explain that they can happen at different times for different children. Explain to the chn that there are emotional changes during puberty as well as physical. Go through menstruation.

Children to create their own Venn diagram to show the changes and create a glossary to accompany it. Children to create a poster to explain the changes that happen during puberty.

**Working Scientifically Skills:** asking questions – asking questions about puberty, recording data – drawing poster to show changes during puberty

**Lesson 5: Adulthood**

**Enquiry Question – Do we stop changing when we get old?**

Provide chn with a selection of photos of well known older people and ask them to order them by age. Discuss how people generally stop growing around 20 and then spend most of their adult life aging. Discuss how the children ordered the photos – what features did they look at? Ask the chn what they think happens to bones, hair, muscles, height, hearing etc. as people age. Discuss the age that people have children and ask why. Chn to create a mind map of the different things to expect in old age.

**Working Scientifically Skills:** asking questions – asking questions about how people age and why people age, recording data – mind map to show changes as people age.

**Lesson 6: Human Timeline**

**Enquiry Question – What do you know about the stages in the human lifecycle?**







Explain to the children that they now need to present the information they have learnt about the human lifecycle to the rest of the class. Children to work in groups and present their work any way they want.


**Working Scientifically Skills:** recording data – chn choose how to record their knowledge of the human lifecycle, presenting data – communicate their findings to an audience using relevant scientific language

**Key Knowledge:** children know there are many different changes inside and outside the body, humans go through the same lifecycle but this happens at different rates for different people



<b>Key Knowledge:</b> puberty happens to different children at different times, puberty is physical and emotional changes,	<b>Key Knowledge:</b> chn know about different changes as we age, people stop growing but there are changes that we can't see as people age		

<div>  <div> Year 5 Medium Term Science Planner  <b>Animals, including humans (Biology) – Formative Assessment</b> </div> <div>      </div> </div>				
<b>National Curriculum Objectives:</b> - Describe the changes as humans develop to old age			<b>Key Vocabulary:</b> Foetus, Embryo, Womb, Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty, Hormone, Physical, Emotional	
Enquiry Question 1: What are the different stages in the human life cycle?  <b>Working Scientifically Skills:</b> asking questions – asking questions about the stages of the human lifecycle, recording data – draw and label a scientific diagram of the human lifecycle <b>Key Knowledge:</b> humans change as they age, children can describe the changes to humans as they age  Below:  Absent:	Enquiry Question 2: How does a foetus develop?  <b>Working Scientifically Skills:</b> recording data – draw a bar graph to show gestation period to compare different animals, draw a timeline to show foetal development <b>Key Knowledge:</b> different animals have different gestation periods, chn know the different stages of foetal development  Below:  Absent:	Enquiry Question 3: How does a child change as it grows?  <b>Working Scientifically Skills:</b> making predictions – using prior knowledge to suggest an answer to the question, observing & measuring – using equipment to take measurements using standard units, recording data – construct and record data in a complex table, drawing conclusions – discuss whether the evidence supports their prediction <b>Key Knowledge:</b> children reach different milestones as they grow and they become more independent as they get older  Below:  Absent:	Enquiry Question 4: How do we change through puberty?  <b>Working Scientifically Skills:</b> asking questions – asking questions about puberty, recording data – drawing poster to show changes during puberty <b>Key Knowledge:</b> puberty happens to different children at different times, puberty is physical and emotional changes Below:  Absent:	

<p><b>Enquiry Question 5:</b> Do we stop changing as we get old?</p> <p><b>Working Scientifically Skills:</b> asking questions – asking questions about how people age and why people age, recording data – mind map to show changes as people age.</p> <p><b>Key Knowledge:</b> chn know about different changes as we age, people stop growing but there are changes that we can't see as people age</p> <p>Below:</p> <p>Absent:</p>	<p><b>Enquiry Question 6:</b> What do you know about the stages in the human lifecycle?</p> <p><b>Working Scientifically Skills:</b> recording data – chn choose how to record their knowledge of the human lifecycle, presenting data – communicate their findings to an audience using relevant scientific language</p> <p><b>Key Knowledge:</b> children know there are many different changes inside and outside the body, humans go through the same lifecycle but this happens at different rates for different people</p> <p>Below:</p> <p>Absent:</p>	<p><b>Notes:</b></p> 
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