



Animals including Humans

We teach the units from Developing Experts and this document shares parts of the knowledge organiser from Developing Experts.

Year 5 Science Knowledge Organiser Summer Term

Lesson Sequence



1. Identify the key stages of a mammal's life cycle



2. Explore the gestation periods of mammals



3. Learn about foetal development



4. Investigate the hand span of different aged children



5. Learn about the changes experienced in puberty



6. Describe the changes humans may experience during old age

Human Gestation Period (9 months*)

The gestation period is when the **foetus** develops inside the **female**. It is different in all **mammals**.



Some animals give birth to 1 baby – the North American Opossum has between 16 and 20!

- Humans - 9 months
- Elephants – 23 months
- Basking shark – 42 months
- North American Opossum - 12 days

Human Young (0-3years*)

Young mammals (babies) are **dependent** - they:

- need milk
- have poor muscle control
- need lots of sleep
- cannot control toileting



Puppies are born with their eyes closed.

Human babies see light and dark.

Toddlers begin walking between 1-2 years.

offspring

foetus

dependent

adolescent

puberty

gestation

pregnant

toddler

prenatal

breeding

embryo

hormones

Human Adults (21-100 years*)

- Adults are fully grown.
- A dog reaches adulthood at about 2 years.
- Adults reproduce so the whole cycle starts again.



A middle-aged adult



An elderly adult

Human Youngsters (4-11 years*)

Human and other mammal youngsters walk **independently**, eat independently and toilet independently. They begin to learn new skills.



Human Adolescents/Young Adults (12-21 years*)

- Shoulders broaden
- More muscly
- Hair on legs, chest and face
- Penis and scrotum develops
- Voice breaks

During puberty, hormones cause physical, mental and emotional changes. Some are the same for boys and girls:

- Hair on armpits and groin.
- Greasy skin/spots
- Mood swings

- Hips broaden
- Breasts develop
- Menstruation starts (periods)

***These are approximate ages – every individual is different.**



<p>Identify the key stages of a mammal's life cycle</p>	<p>Mammals have 3 key stages in their life cycle. These are: the baby stage, the young stage, and the independent stage. All mammals have similar life cycles, for example - the life cycle of a cat or dog can be classed as similar to that of humans. When young adults reach adult maturity, they can reproduce and pass their DNA onto their offspring.</p>
<p>Explore the gestation period of mammals</p>	<p>The gestation period of mammals refers to the process or period of a baby maturing inside the uterus (womb) between conception and birth. The uterus is a part of the body's reproductive system. For humans, the gestation period lasts roughly nine months; however, this changes depending on the mammal. For example, for elephants this period lasts 645 days, which is just short of 2 years!</p>
<p>Learn about foetal development</p>	<p>The gestation period in humans is usually split into 3 sections to classify foetal development. 0-2 is called the germinal stage, 3-8 weeks is called the embryonic stage, and 9 weeks to birth is called the foetal stage. The average length of a pregnancy in humans is 280 days, or 40 weeks. A premature baby is classed as one delivered before 37 weeks of pregnancy.</p>
<p>Investigate the hand span of different aged children</p>	<p>Children and young people develop at different rates. There is not a set of rules that needs to be followed for development to be considered 'correct', rather, healthy development happens at many different speeds and sequences.</p>
<p>Learn about the changes experienced during puberty</p>	<p>As mentioned above, development is not a set sequence that happens exactly – it is different for each individual. Puberty is when a child's body changes, and they start to become an adult. For girls this happens usually between 7 and 13 and for boys this happens somewhere between 9 and 15.</p>
<p>Describe the changes humans may experience during adulthood and old age</p>	<p>The human body is constantly changing as we go through life. In adulthood and old age, changes are still occurring. Adults tend to slow down as their bones become less supple, their hair may become greyer and their skin will become more wrinkled as the body slows down collagen production.</p>