Knowledge Organiser: **Science – Animals, including humans** **YEAR 5:** Spring term 1

**Scientific vocabulary:**

**Challenge**

Gestation period -Foetal development period from the time of conception until birth

Embryo -An animal or a plant in its earliest stage of development. Embryo is the name given to an unborn baby for the eight weeks following fertilization.

Asexual reproduction – Offspring get genes from one parent so are clones of their parents

Classification - the arrangement of animals and plants in groups according to their similarities.

**Subject Specific**

Offspring – A person’s child or children/ an animal’s young.

Fertilization- A baby's birth starts with a process called fertilization, which is the joining of an egg and a sperm.

Puberty – The period during which adolescents reach sexual maturity and become capable of reproduction.

Reproduction – The production of offspring by a sexual or asexual process

Sexual reproduction – Offspring get genes from both mum and dad, inheriting a mix of features from both

Foetus – An unborn or unhatched offspring of a mammal, in particular an unborn human more than eight weeks after conception

Cells- All living things are made up of cells. Cells are the basic building blocks of all animals and plants.

**Basic**

Adult – A person who is fully grown or developed

Child – A young human being below the age of puberty or below the legal age of majority

Mammal- An animal that breathes air, has a backbone, and grows hair at some point during its life. In addition, all female mammals produce milk to feed their young.

Human life cycle- Starts from egg or seed then birth. Then they become adults and reproduce at this stage.

**Scientific knowledge:**

The human body constantly develops and changes throughout the human life cycle, and food provides the fuel for those changes. The stages of the human life cycle include pregnancy, infancy, the toddler years, childhood, puberty, older adolescence, adulthood, middle age, and senior years.

**Puberty**

Puberty is the stage of development between childhood and adulthood. Physical growth occurs and the body changes from that of a child to an adult.

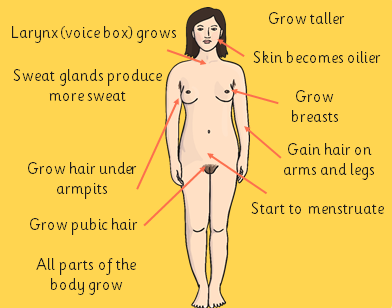
Puberty occurs at any time between 11 and 17. It is different for each person and this is perfectly normal. Both boys and girls develop more body hair. Overall boys grow more hair and grow it on more body parts than girls (including the face and chest).

**Puberty**

**for boys**

**Key objectives:**

* Describe the changes as humans develop to old age.



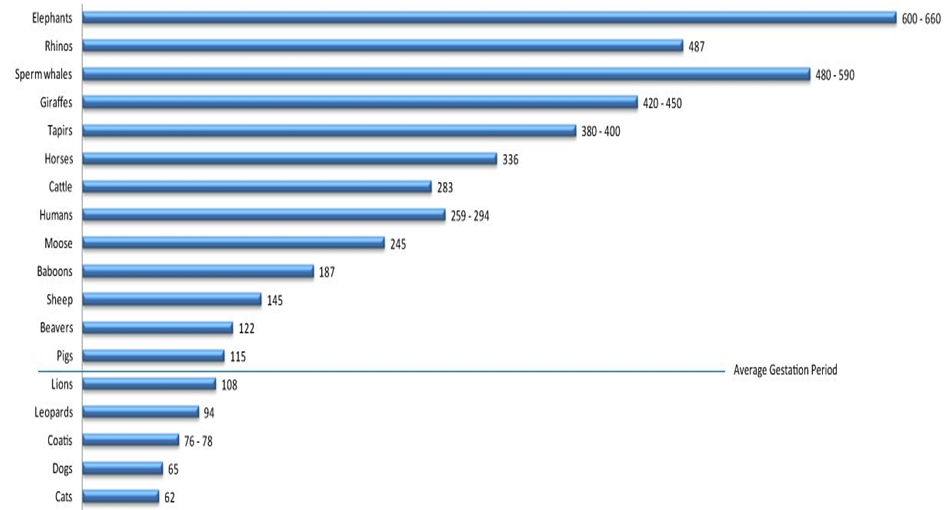
**Puberty for girls**

**Old Age**

Old age is the last stage of human development. There are some physical changes that take place for all older people. The body is made up of cells and these cells age over time.

All cells die because they are programmed to do so. They then get replaced by new cells. However in old age this process of generating new cells slows down for all people but the extent to which aging leads to ill health or problems does vary from person to person.

**Average Gestation Period**



**Homework challenges:**

*Print off and add pictures of yourself as a baby and one of you now. List the similarities and differences in the given table.*

*Visit or ask an older person to discuss how they feel about aging. (Children should develop an understanding of the positive aspects of getting older.)*

*Research and compare a human gestation period to an animal’s gestation period. Present findings in a discovery diary format.*

**Famous people**

Jean Piaget: A Swiss psychologist who was famously known for his work on child development and the different stages.

First ever test tube baby -Louise Joy Brown: In 1978, Louise Joy Brown, the world's first baby to be conceived via (IVF) is born at Oldham and District General Hospital in Manchester, England, to parents Lesley and Peter Brown.