### PRENATAL DEVELOPMENT

Before birth, a human must develop from a series of cells to a baby inside its mother.

Germinal Phase - First two weeks where cells develop and divide.

<u>Embryonic Phase</u> - Between two and eight weeks when major organs and structure to the organism develops.

<u>Foetal Phase</u> - After eight weeks until birth when it takes on a recognisable human form and grows until it is ready to be born. This is called a foetus.



#### AMAZING HUMAN FACTSI

- The strongest muscle in the human body is the tongue.
- The lifespan of a human hair is 3-7 years.
- During your lifetime you will produce enough saliva to fill two swimming pools.
- Human shed and regrown their outer skin every 27 days.
- Humans are the only species that produce emotional tears.

# **HUMAN GROWTH**

Adolescent



Baby







Middle

Late Adulthood / Old Age



<u>BABY</u> - Babies drink milk after they are born. They usually start eating solids when their teeth start to appear at about 6 months. Many can crawl by 9 months and begin to walk after they are 1. All babies are different and develop at different times.

<u>CHILD</u> - Running, talking and learning to read, write and count are all developing in a child. They are developing skills in sports, art and music as well as developing socially, emotionally, physically and psychologically.

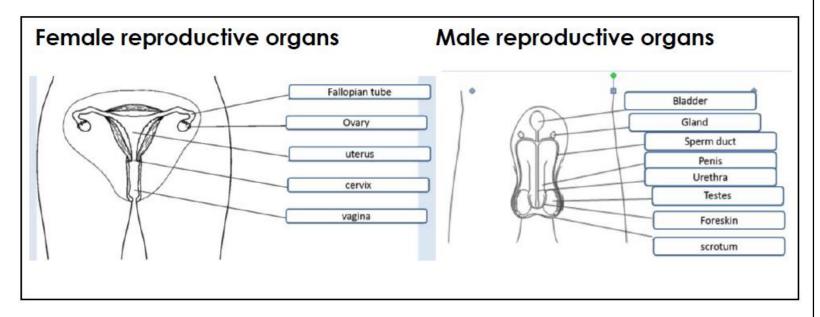
<u>ADOLESCENT</u> - During the ages of 9-19, humans become more independent, begin puberty ready for reproduction and become ready for adulthood.

<u>ADULTHOOD</u> - The human body is at its physical peak of fitness and strength and are able to be completely independent. This is when most humans reproduce.

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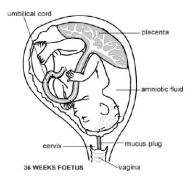
<u>LATE ADULTHOOD / OLD AGE</u> - Body declines in fitness and health from 60 years onwards and there is an increased dependence on others to look after them as time goes on. The life cycle ends when a human dies.

# **Human Reproduction**



### Pregnancy

The fertilised egg develops into an embryo and then a foetus. It is protected by the amniotic fluid and obtains food from the mother's blood via the placenta. Pregnancy lasts 9 months and then the muscles of the uterus push the baby out through the vagina.



### **IVF**

This stands for 'in vitro fertilisation', and helps couples who cannot conceive to have a baby. The egg is fertilised by the sperm in a **petri dish** and then the **embryo** is placed back in the **uterus** to develop.

## Vocabulary:

Fertilisation: Joining of a nucleus from a male and female sex cell.

Ovary: Organ which contains eggs.

Testicle: Organ where sperm are produced.

Oviduct, or fallopian tube: Carries an egg from the ovary to the uterus and is where fertilisation occurs

Uterus, or womb: Where a baby develops in a pregnant woman.

Ovulation: Release of an egg cell during the menstrual cycle, which may be met by a sperm.

Menstruation: Loss of the lining of the uterus

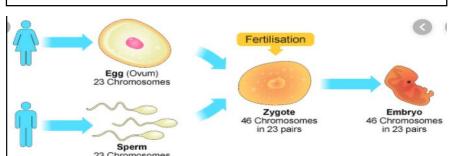
during the menstrual cycle.

Reproductive system: All the male and female organs involved in reproduction.

Penis: Organ which carries sperm out of the male's body.

Vagina: Where the penis enters the female's body and sperm is received.

Foetus: The developing baby during pregnancy.



Scientific Vocabulary	Definition / Meaning
puberty	- the period during which adolescents reach sexual maturity and become capable of reproduction.
fertilised	– when the egg is introduced to the sperm and comes together to produce an embryo.
sexual reproduction	<ul> <li>the production of new living organisms by combining genetic information from two individuals of different types (sexes).</li> </ul>
foetus	<ul> <li>an unborn or unhatched offspring of a mammal, in particular an unborn human more than eight weeks after fertilisation.</li> </ul>
adolescent	– a young person in the process of developing from a child into an adult.
ovaries	- a female reproductive organ in which ova or eggs are produced, present in humans and other vertebrates as a pair.
testicles	<ul> <li>either of the two oval organs that produce sperm in men and other male mammals, enclosed in the scrotum behind the penis.</li> </ul>
sperm	– is the male reproductive cell
embryo	<ul> <li>an unborn or unhatched offspring in the process of development, in particular a human offspring during the period from approximately the second to the eighth week after fertilisation.</li> </ul>
ovulation	- discharge of ova or ovules from the ovary.