

Genes

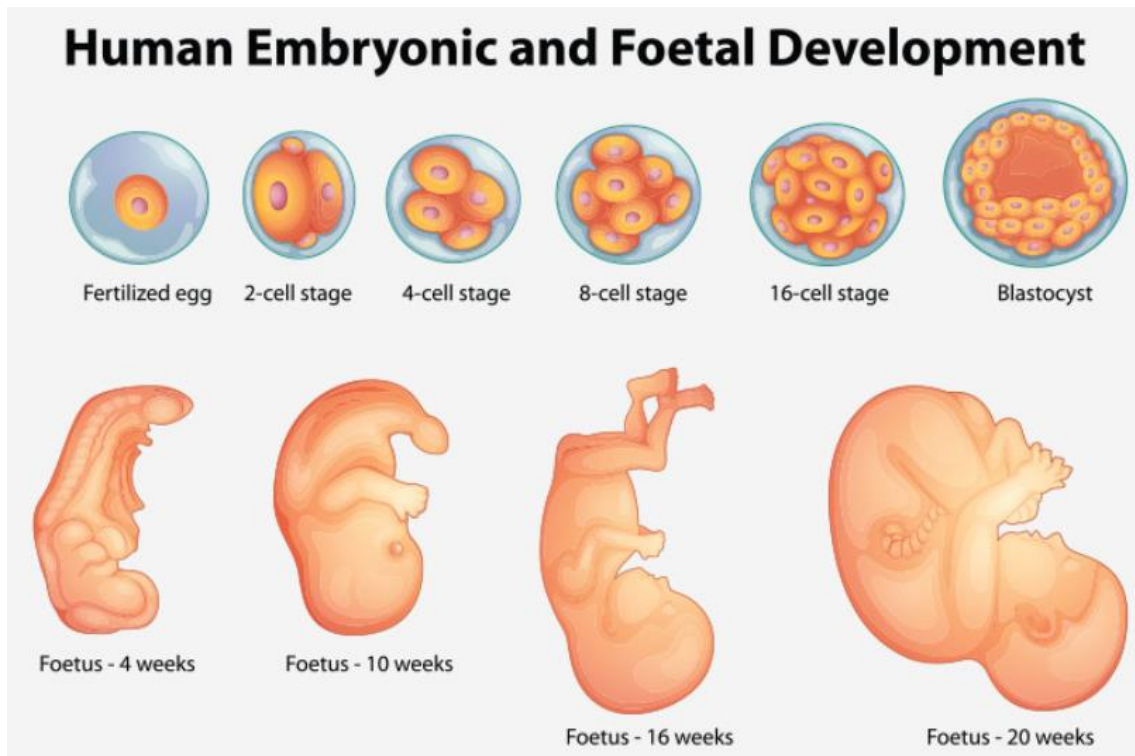
2. Human reproduction

CONCEPT 3

GESTATION AND BIRTH

NOTES

Humans typically reproduce through a sexual reproduction. Sexual reproduction produces offspring that are unique individuals. Half of their genes from each parent. In sexual reproduction, a male gamete (sperm) and a female gamete (egg) join together, this is called fertilisation. At this point re-visit animal cell structures and adaptations to explain differences between sperm and ovum. Don't forget fertilisation is the joining of two gametes to become one zygote. At the point of conception, the zygote begins to divide to make a small collection of cells this is called an Embryo. This embryo travels to the uterus and attaches itself to the uterine lining and develops into a foetus then a baby.



The foetus wholly relies on the mother as it develops for; protection, nutrition, oxygen and removal of waste. The placenta is the organ responsible for providing oxygen and nutrients and removing waste. It grows into the wall of the uterus and is joined to the foetus by the umbilical cord. These nutrients and waste are passed by diffusion, the blood of the mother and the foetus never mixes. Oxygen and nutrients diffuse from the mother to the foetus and carbon dioxide and waste diffuse from the foetus to the mother. Here again is a chance for a re-visit on diffusion and particle theory.

