# LIFE CYCLES, REPRODUCTION and STAGES IN HUMAN GROWTH – Knowledge Organiser Year 5 Summer 2

## Vocabulary

| | |
|---|---|
| gestation period | The amount of time it takes for a new living thing to develop in a uterus |
| adolescence | The time between the start of puberty and adulthood |
| puberty | The stage at which a person's reproductive system matures and a child's body changes into that of an adult |
| embryo | Animal or plant in the uterus in its earliest stage of development |
| foetus | Animal in the uterus in its latest stage of development before it is born |
| sexual reproduction | The process of creating a new living thing by the joining of male and female sex cells |
| asexual reproduction | The process of creating a new living thing by one parent without the joining of sex cells |
| fertilisation | The joining of male and female sex cells (e.g. egg and pollen or egg and sperm) |
| anther | Part of the stamen that produces pollen |
| filament | A slender stalk that supports the anther |
| stigma | Part of the carpel that receives the pollen |
| style | Connects the stigma to the ovary and allows pollen to pass to the ovules |
| ovary | Part of the carpel that contains the ovule |
| ovule | The scientific word for an egg, joins with the pollen to make a seed |
| metamorphosis | The process of change from a young form to an adult form in two or more distinct stages |
| nymph | Young insect which looks similar to the adult but doesn't have wings |
| pupa | Young insect in a non-feeding stage which is usually surrounded by a cocoon or case |
| larva | Young insect (or other invertebrate) which looks very different to the adult (e.g. flies) |

## Stages in Human Growth

Embryo
⇩
Foetus
⇩
Baby
⇩
Childhood
⇩
Adolescence
⇩
Adulthood
⇩
Old age

## Changes in Puberty

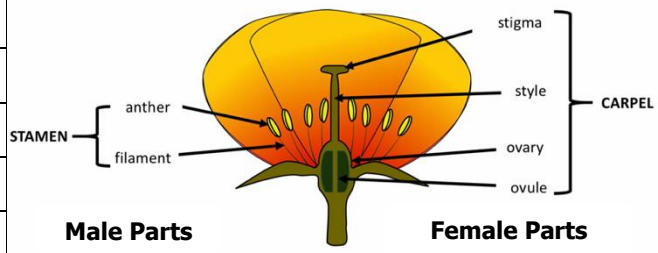
Puberty is when a child's body begins to grow, change and develop into an adult body.

- There are emotional and physical changes
- Girls usually begin puberty earlier than boys
- Reproductive organs mature
- Children have a growth spurt
- There is an increase in sweat production

## Asexual Reproduction in Plants

Plants can reproduce asexually through their stems, roots and leaves. This does not involve the joining of sex cells. Asexual reproduction requires 1 parent and produces plants with are identical to the parent. Examples include: Bulbs
Runners
Tubers
Rhizomes
Asexual reproduction can also be artificial e.g. taking cuttings.

## Sexual Reproduction in Plants




Flowers have male and female sex cells. Sexual reproduction involves the transfer of pollen from the male anther to the female stigma during pollination. The pollen goes down into the ovary and joins with the egg (ovule) where fertilisation occurs and a seed is formed. This requires 2 parents and produces plants which are similar but not identical to the parents.

## Animal Life Cycles

| | Mammal | Amphibian | Insect (Complete metamorphosis) | Insect (Incomplete metamorphosis) | Bird |
|---|---|---|---|---|---|
| Starts as an egg | x | √ | √ | √ | √ |
| Number of stages in life cycle | 7 | 5 | 4 | 3 | 4 |
| The young look similar to the adult | Yes | No | No | Yes | Yes |