B1 Chapter 3: Reproduction
Knowledge organiser

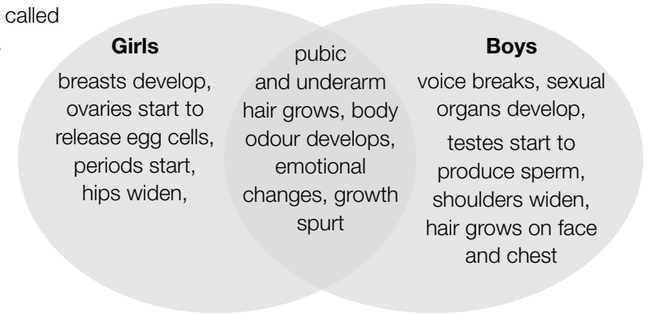
Activate
Question • Progress • Succeed

Human reproduction

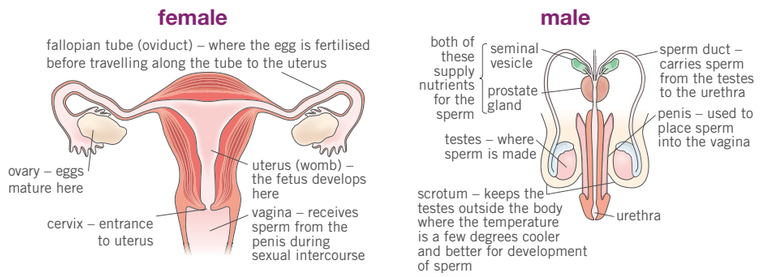
Adolescence

The time during which you change from being a child to being an adult is called **adolescence**. The physical changes that happen between the ages of 9–14 are called **puberty**.

These changes include:



Reproductive systems



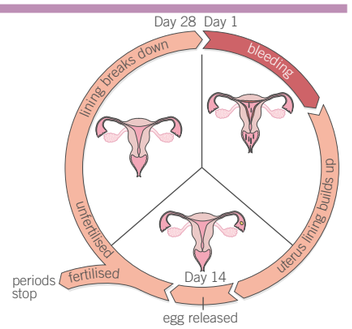
The menstrual cycle

Day 1 – blood from uterus lining leaves the body through the vagina.

Day 5 – bleeding stops. Uterus lining begins to re-grow.

Day 14 – an egg cell is released from one of the ovaries (**ovulation**).

The egg cell travels through the oviduct towards the uterus.



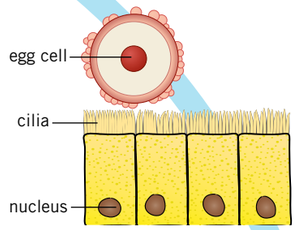
Methods of contraception

Condoms – A thin layer of latex rubber that prevents semen being released into the vagina.

Contraceptive pill – a daily tablet that contains hormones. It prevents pregnancy by stopping ovulation.

Fertilisation

An egg is released every month.



The egg cell is moved along the oviduct towards the uterus by **cilia**.

Sperm cells are produced in the **testicles**/**testes**.

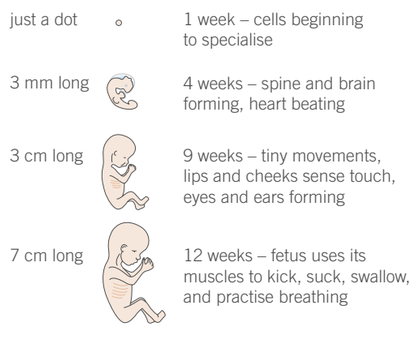
Sperm are mixed with nutrients and fluid from the glands to form **semen**.

During sexual intercourse a man will release semen into the vagina (**ejaculation**).

If a sperm meets the egg **fertilisation** may happen.

The fertilised egg may then **implant** in the uterus lining and form an **embryo** (ball of cells)

the main steps in a baby's development (**gestation**) during pregnancy



There are three important structures in the uterus during gestation:

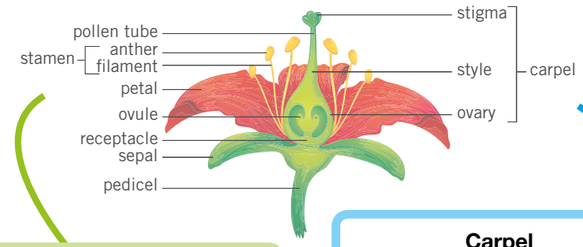
placenta – where substances pass from mother to **fetus**

umbilical cord – connects the fetus to the placenta

fluid sac – shock absorber that protects the baby.

Plant reproduction

Parts of a flower



Stamen

male part of the flower
- the **anther** produces pollen
- the **filament** holds up the anther

Carpel

female part of the flower
- the **stigma** is sticky to catch grains of pollen
- the **style** holds up the stigma
- the ovary contains **ovules**

Pollination

Pollination is the fertilisation of the ovule, which occurs when pollen is transferred from an anther to the stigma. Pollination can occur due to insects or the wind.

cross-pollination
between two **different** plants

self-pollination
between the male and female parts of the **same** plant

Fertilisation

Germination

When a seed starts to grow it is called **germination**.

To germinate, seeds need:
- water – for the seed to swell and the embryo to start growing
- oxygen – for respiration and transferring energy for germination
- warmth – to help speed up the reactions in the plant.

Key terms Make sure you can write definitions for these key terms.

adolescence *anther* *carpel* *cervix* *cilia* *contraception* *ejaculation* *embryo* *fertilisation* *fetus* *filament* *gestation* *germination* *implant* *menstrual cycle* *ovary* *oviduct* *ovulation* *ovule* *placenta* *pollen* *pollination* *puberty* *semen* *sperm duct* *stamen* *stigma* *style* *testes* *umbilical cord* *uterus* *urethra* *vagina*