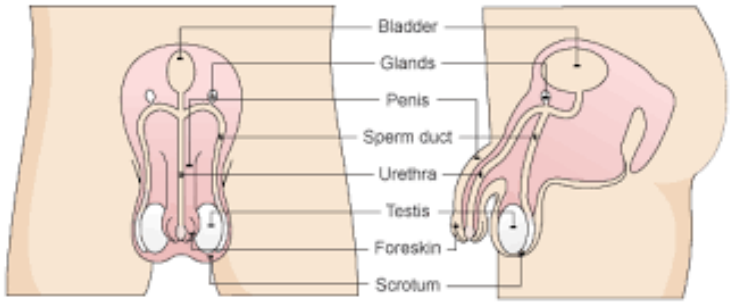
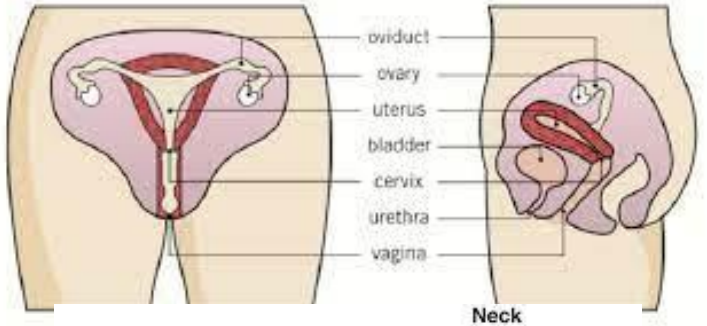
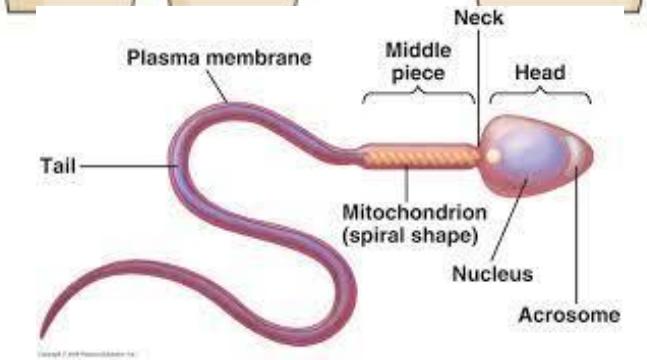
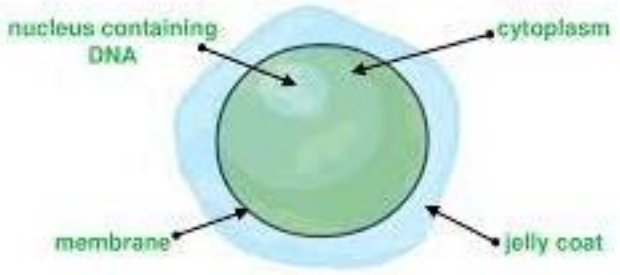
Biology 7B Reproduction in animals

1	A gamete is a type of specialised cell, it can be an egg or sperm cell
2	When a sperm cell enters an egg cell and the two nuclei of the cells fuse, this is called fertilisation
3	Sexual reproduction requires two individuals to produce offspring
4	External fertilisation is when fertilisation happens outside the body
5	Internal fertilisation is when fertilisation takes place inside the body when the male places sperm cells inside the female.
6	Gametes are produced by the reproductive organs
7	Sperm cells are made in the testes
8	The testes are outside of the body in a bag of skin called the scrotum
9	Sperm cells are specialised cells, they have special features that allow them to carry out a specific function. They have a tail to help them swim, a streamlined shape, the top of the head contains substances that attack the outside of the egg cell in order to get inside and lots of mitochondria for energy.
10	Egg cells are made in the ovaries
11	One egg cell is released approximately every 28 days in the menstrual cycle.
12	An unfertilised egg results in a period at the start of the menstrual cycle.
13	Puberty is a stage in life that typically occurs between the ages of 10-18 to prepare the body for reproduction
14	Puberty is caused by a release of sex hormones in the body and causes specific changes to occur
15	In females, sex hormones cause underarm and pubic hair growth, breasts to develop, hips to widen, and ovaries to start releasing eggs.
16	In males, sex hormones cause underarm, facial and pubic hair growth, shoulders to widen, voice to deepen, and the testes and penis to grow and start producing sperm.









7B Reproduction in animals

17	In sexual intercourse the mans penis enters the woman's vagina.
18	During ejaculation sperm is released into the vagina and it can then be sucked up through the cervix to enter the uterus where small movements help it reach the oviducts.
19	If a sperm cell meets the egg cell it can fertilise it. During fertilisation the two nuclei (each of which contain half the chromosomes needed to to make a new human) fuse together
20	The fertilised egg cell is called a zygote.
21	The zygote keeps dividing into more and more new cells as it travels towards the uterus.
22	The ball of cells is now an embryo and it attaches itself to the lining of the uterus in a stage called implantation. The woman is now pregnant
23	After implantation the embryo continues to grow and develop surrounded by amniotic fluid to help protect it.
24	The placenta attaches the to lining of the uterus and takes oxygen, water and nutrients from the mothers blood to the blood of the foetus.
25	The umbilical cord carries the blood to and from the foetus. The mothers blood and the blood of the foetus do not mix together.
26	An ultrasound scan is used to check the growth and development of the foetus.
27	A gestation period is the time from fertilisation until birth, in humans this 9 months (40 weeks)
28	When the baby is ready to be born the uterus begins to contract, this is the start of labour.
29	Once the cervix is about 10cm wide the strong contractions can push the baby through it
30	When the baby is out, the umbilical cord is cut leaving a short stump that eventually falls off and forms a scar that is the navel (belly button)
31	After the baby is born the placenta detaches and passes out through the vagina, this is the end of labour
32	New babies need to be fed on milk either from mammary glands in the breasts of the mother or from formula. These contain all of the nutrients to help the baby grow and develop.