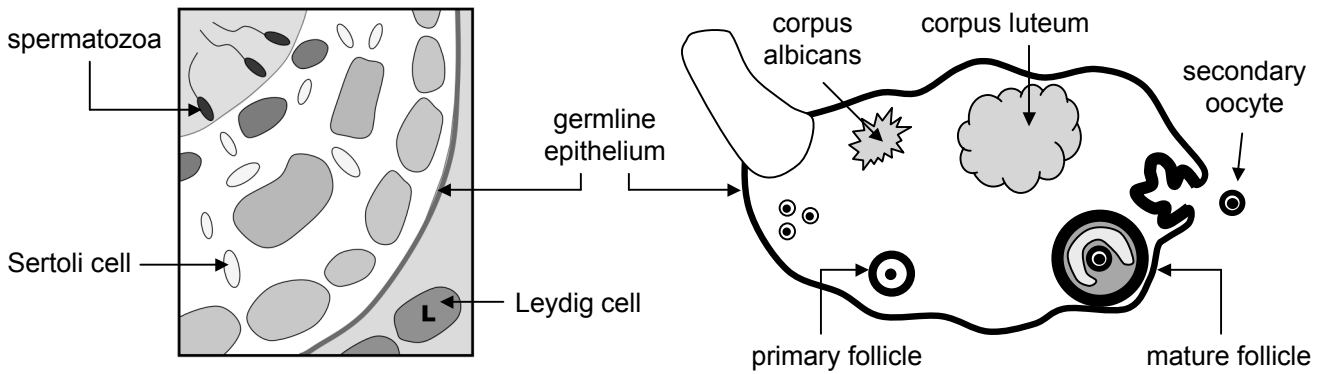
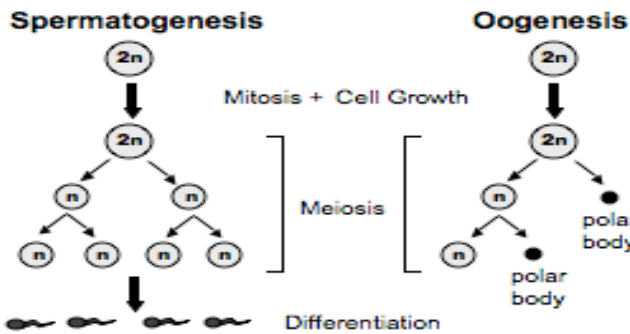


Reproduction (11.4)

Annotate diagrams of the ovary and testis tissue (11.4.1 / 11.4.4)



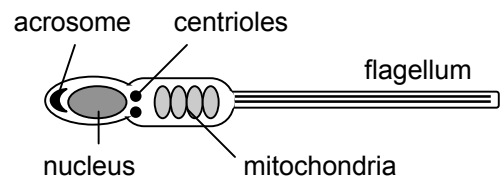
Gametogenesis (11.4.2 / 11.4.5 / 11.4.8)



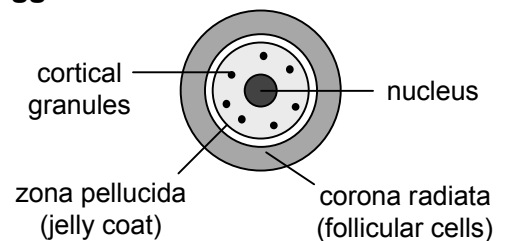
	Spermatogenesis	Oogenesis
Numbers produced	Millions daily	One per cycle
Gametes per germ cell	Four	One
Time of formation	Continuous	Once a month
Release of gametes	Any time	Monthly cycle

Draw an egg & sperm (11.4.6)

Sperm:



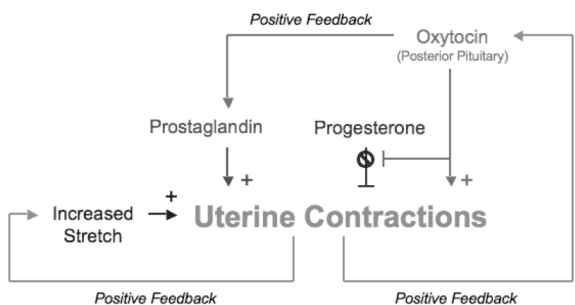
Egg:



State the roles (11.4.3 / 11.4.7 / 11.4.10)

- FSH:** Stimulates sperm production & Sertoli cell maturation
- LH:** Stimulates leydig cells to produce testosterone
- Testosterone:** Maturation of spermatids into spermatozoa
- Epididymis:** Sperm maturation (develop motility)
- Seminal vesicle:** Adds nutrients and prostaglandins
- Prostate gland:** Alkaline fluids neutralise vaginal acids
- hCG:** Maintains corpus luteum until placenta develops

Process of birth (11.4.15)



Fertilisation and Pregnancy (11.4.9 / 11.4.11 - 11.4.14)

- Sperm enzymes break down the jelly coat of the egg so the sperm nuclei can enter (*acrosome reaction*)
- Egg cortical granules release enzymes to prevent more sperm from fusing (*cortical reaction*)
- The zygote divides into a solid ball of cells (morula) that secrete fluid to form a blastocyst
- The lining of cells (trophoblast) embed in the endometrium as the disc-shaped placenta develops
- The placenta is connected to the foetus by the umbilical cord and contains open-ended blood filled villi
- Placenta releases progesterone (maintains endometrium) and estrogen (develops mammary glands)
- Placenta transports oxygen, glucose, water, hormones and antibodies to foetus and removes wastes
- The foetus is protected and supported within an amniotic sac filled with fluid until birth