

Name: _____

Date: _____

Review: Puberty, Male and Female Reproductive system & Reproduction

1. Define the following words associated to **Puberty**:

- a) Puberty: **all the physical and psychological changes that occur in the body**
- b) Hormones: **Chemicals that cause changes**
- c) Glands: **cells or organs that secrete hormones**

2. Several changes take place during puberty. Give of few examples of:

- a) anatomical change **silhouette changes, pelvis widens, underarm and pubic arm develop. Skeletal and muscle growth, bone density increases, larynx enlarges, facial, and general hairiness.**
- b) psychological changes: **physical attraction, libido, need for autonomy, responsibility to reproduce**
- c) Physiological changes: **testicles mature and lower, menstrual cycle begins, genital organs mature**

3. When does puberty take place in humans? **adolescence**

4. Name the glands that produce the following hormones:

- a) FSH and LH **pituitary gland**
- b) Testosterone in males **testicles**
- c) Estrogen and progesterone in females **ovaries**

5. Match the letters with the possible choices. The choices can be used more than once.

estrogen, progesterone, FSH, LH, pituitary gland, testosterone, testicles and ovaries

- a- a- Glands that both males and female have: **pituitary**
- b- Hormones that both male and female have: **FSH & LH**
- c- Hormone that only males have: **testosterone**
- d- Hormones that only females have: **estrogen and progesterone**
- e- Gland that only males have: **testicles**
- f- Gland that only females have: **ovaries**

6. What are the female primary sexual characteristics? **Menstrual cycle and genital organs mature**

7. What are the male primary sexual characteristic? **Sperm production**

8. Give 3 secondary characteristics for females **breasts develop, hips widen, and pubic hair appears**

9. Give 3 secondary sexual characteristics for males **muscles, hairiness, voice change**

10. Define the following words associated to the **Male Reproductive system**:

- a) Erection: **increase in volume and rigidity of penis**
- b) Ejaculation: **release of semen from penis**
- c) Pre ejaculation: **release of semen before ejaculation**

11. Explain how an erection occurs: **penis fills with blood and gets rigid**
12. What is the process whereby sperm are manufactured in the testes? **spermatogenesis**
13. Explain if a penis can ejaculate without being erect: **No, must have erection for ejaculation but do not need to ejaculate with each erection**
14. Why are males able to father children in their 70's? **once they have undergone puberty, they can produce sperm even in old age.**
15. Place the following events in chronological order:
 - a) Sperm pass through the urethra
 - b) Due to stimulation, the corpora cavernosum and spongiosum fill with blood
 - c) The penis becomes erect
 - d) Spermatogenesis results in the production of sperm
 - e) Sperm pass through the ejaculatory ducts
 - f) Sperm is expelled

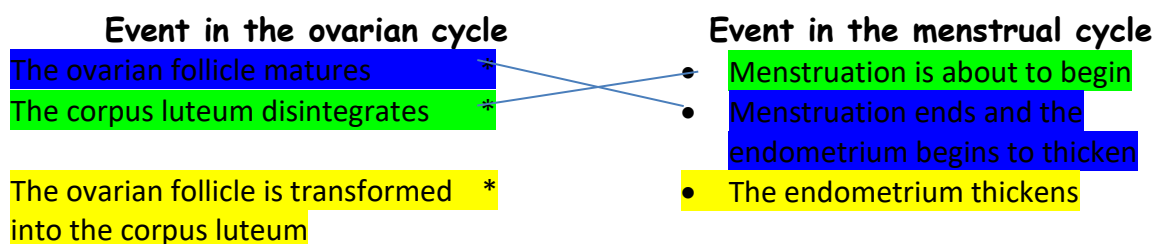
D-B-C-E-A-F

16. Define the following words associated to the **Female Reproductive system**:
 - Menstrual cycle: **all the changes a female goes through due to glands/hormones**
 - Ovum: **female sex cell**
 - Oocyte: **immature egg**
 - Oogenesis: **process of ovum being produced through meiosis**
 - Ovulation: **ovum released into fallopian tube**
 - Follicle: **cells which surround immature egg/oocyte**
 - Corpus luteum: **remainder of follicle, releases hormones**
 - Endometrium: **uterine lining where zygote implants**

17. Match the word with its function.

a) Follicle E	A) Causes ovulation
b) LH A	B) Causes endometrium to thicken
c) Progesterone B	C) Causes follicle to develop
d) FSH C	D) Secretes progesterone
e) Corpus luteum D	E) Secretes estrogen
f) Estrogen F	F) Causes LH to be secreted

18. Match each event in the ovarian cycle by drawing a line to the corresponding event in the menstrual cycle:



19. Explain what happens during the following days of the menstrual cycle and ovarian cycle.

Menstrual Cycle	
1-5	Menstrual Phase
6-14	Proliferation Phase
15-28	Secretory Phase
Ovarian Cycle	
1-13	An oocyte is developing-FSH causes ovarian follicle to mature
14	Ovulation
11-15	Fertile Period

20. Place the following events in chronological order:

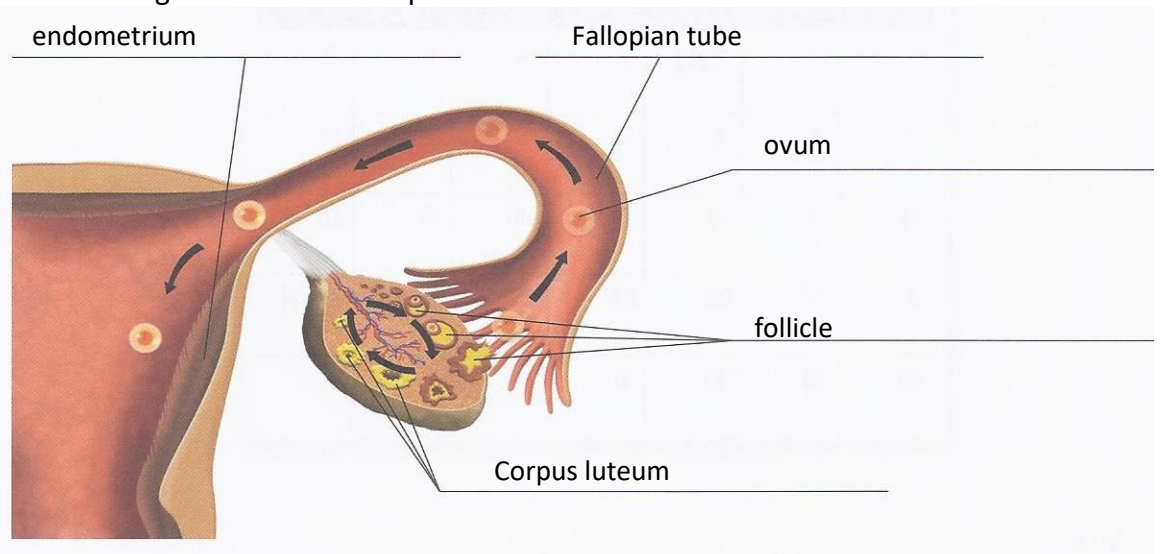
- A. Ovarian follicle ruptures
- B. Ovarian follicle matures
- C. Ovum is expelled
- D. Progesterone is secreted
- E. Follicle changes into corpus luteum

B-A-C-E-D

21. Why does a female get her period? **The ovum has not been fertilized and she is not pregnant and the endometrium sheds**

22. If the ovum only lives 12-24 hours, why is a female fertile for 72 hours? **The sperm can survive in the female for up to 72 hours**

23. Identify the following structures on the picture below:



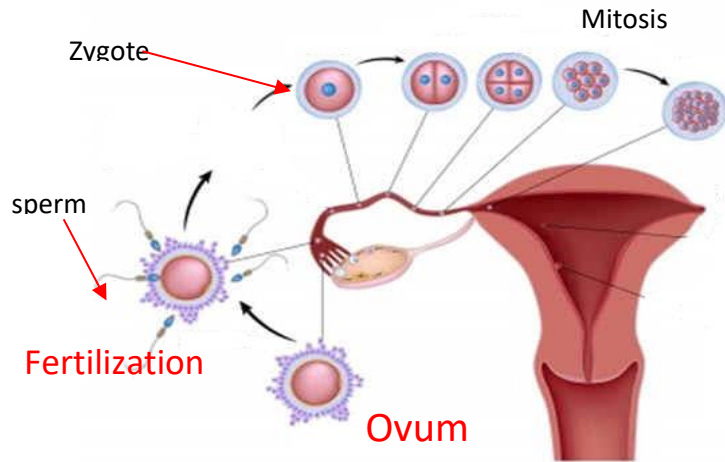
Reproduction

24. Fill in the blank

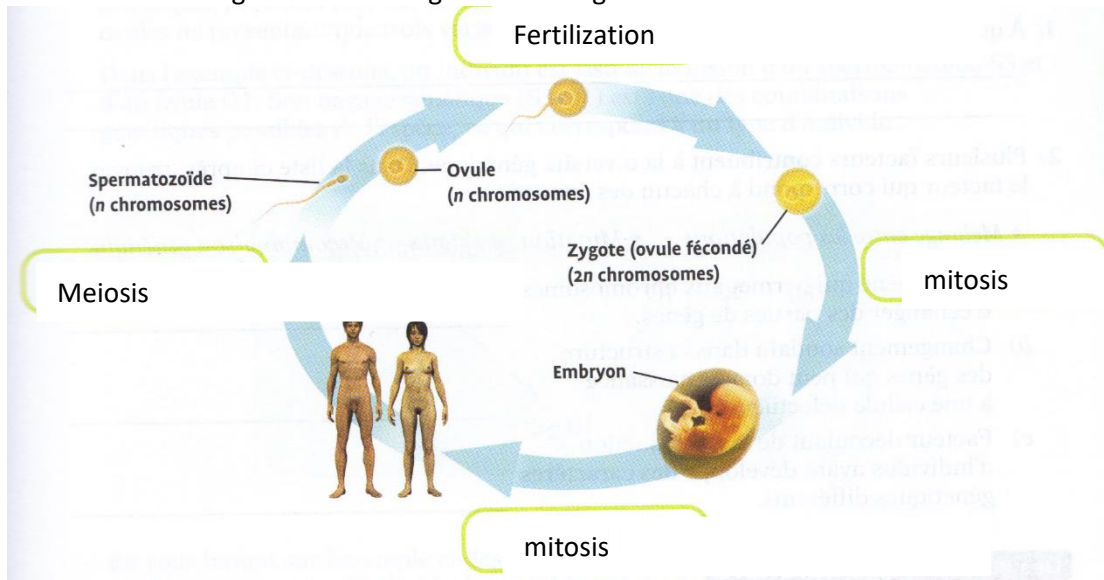
Sperm is produced in the **testicles**. The testicles are glands which secrete the hormone **testosterone**. This hormone causes **secondary** sexual characteristics. The gametes are **sex** cells. They each have **23** chromosomes which make them **haploid**. When the sperm meets the ovum a **zygote** is produced. A zygote has **46** chromosomes which makes it **diploid**. Once the zygote is produced, the cell will continue the process of **mitosis** for the next 9 months.

25. Indicate the following in the picture below:

- Fertilization
- Sperm
- Ovum
- Zygote
- Mitosis



26. Label the diagram below using the following word bank:



27. Use the following word bank to complete the sentences of the text about one of the stages of development during reproduction:

Birth embryo haploid fuse fetus fertilization sexual

Fertilization occurs when an ovum and sperm, two **haploid** cells, meet and **fuse**. This stage of **sexual** reproduction produces a zygote that develops into an **embryo**, then a **fetus** which will grow into a baby until it's **birth**.