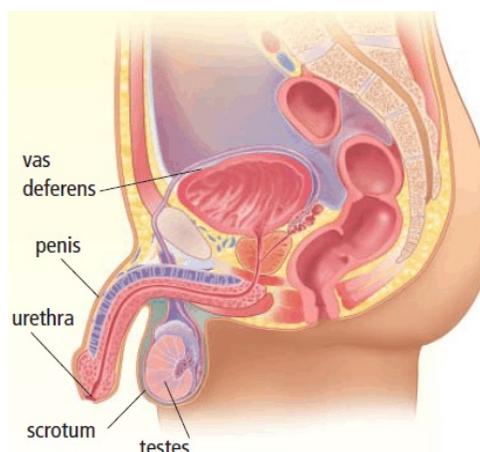


**SCIENCE 9**  
**UNIT 4:REPRODUCTION**  
**WORKSHEET 8 : HUMAN REPRODUCTION**



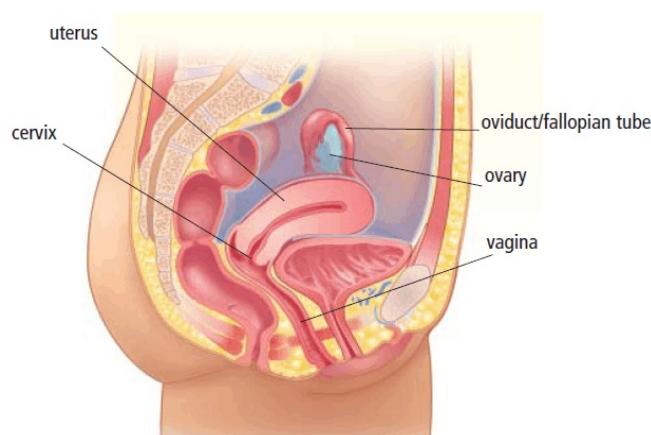
Mammals reproduce by internal fertilization. The internal structures produce the gametes, and provide an environment for fertilization and for protecting the developing embryo. Eventually, these structures also provide the mechanism for the offspring to exit the mother's body.

**MALE REPRODUCTIVE SYSTEM**



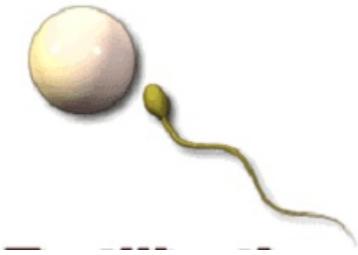
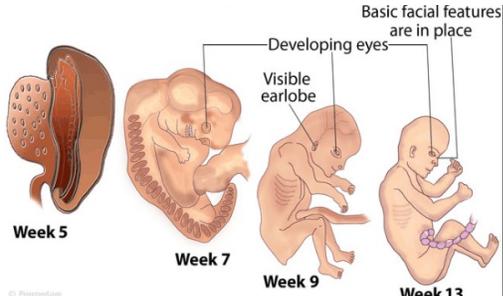
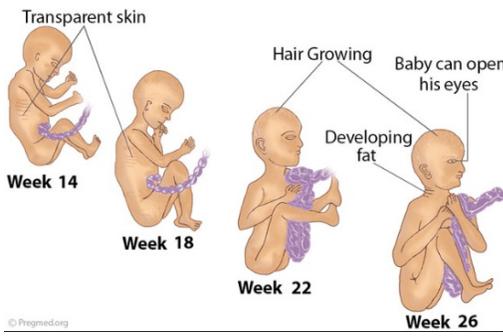
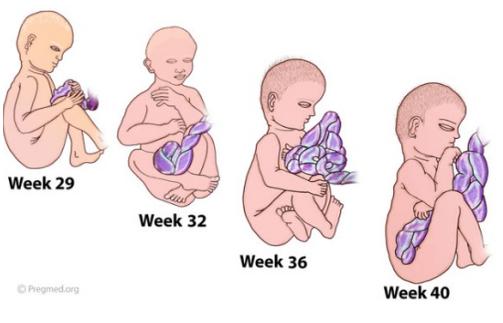
| Structure    | Function   |
|--------------|--|
| Testes       | Produce sperm (male gametes) by meiosis and release hormones.  |
| Scrotum      | Protects the testes, maintaining them at a cooler temperature than the body core.  |
| Vas deferens | Muscular tubes in which sperm mix with fluids to form semen as the sperm are moved from the testes to the urethra. Can house sperm for several months. |
| Urethra      | Opening through which sperm leave the body.  |
| Penis        | Contains the urethra for delivery of sperm.  |

**FEMALE REPRODUCTIVE SYSTEM**



| Structure                 | Function   |
|---------------------------|--|
| Ovaries                   | Produce eggs (female gametes) by meiosis and release hormones.   |
| Oviducts/ fallopian tubes | Location of fertilization. Connect the ovaries to the uterus, although the oviducts are not physically connected to the ovaries                                      |
| Uterus                    | Protects and nourishes the zygote during development. Connects the oviducts to the cervix.   |
| Cervix                    | Sperm travel through this opening on the way to the uterus. Dilates (opens) to allow the baby to leave the body during childbirth.                                   |
| Vagina                    | Sperm are deposited here, their first stop on the way to the egg. Opening through which the baby leaves the body, or through which unfertilized eggs leave the body. |

## Stages in Human Development:

|  |   |
|--|---|
| <p>1. Fertilization</p>       | <ul style="list-style-type: none"> <li>• Occurs in the Oviducts/Fallopian Tubes</li> <li>• Egg and Sperm unite to form a zygote</li> </ul>  |
| <p>2. First Trimester</p>     | <ul style="list-style-type: none"> <li>• All organ systems begin to develop</li> <li>• Zygote is called an embryo</li> <li>• Placenta and amniotic sac form</li> <li>• At 4 weeks, the brain and spinal cord are forming</li> <li>• At 8 weeks, the embryo is now called a fetus</li> <li>• At 12 weeks, all major organs are formed</li> </ul> |
| <p>3. Second Trimester</p>  | <ul style="list-style-type: none"> <li>• Rapid Growth</li> <li>• Skeleton forms</li> <li>• Fetus will grow rapidly between 12 to 16 weeks</li> <li>• Mother will feel movement by 20 weeks</li> <li>• Growth slows between 20 and 24 weeks</li> </ul>   |
| <p>4. Third Trimester</p>   | <ul style="list-style-type: none"> <li>• Growth in preparation for birth</li> <li>• Significant growth in the brain</li> <li>• Immune system develops</li> <li>• Fat is deposited under the skin to aid in warmth after birth</li> </ul>  |

## Signs of Pregnancy:

- Menstruation stops
- Hips will become slightly larger
- Breasts become larger
- Weight gain and abdomen will bulge
- Nausea and Dizziness
- Cravings



1. Which of the following is a male reproductive structure?

- (A) fallopian tubes
- (B) Ovaries
- (C) Testes
- (D) Vagina

2. Which structure does the sperm mature and get stored?

- (A) Penis
- (B) Testes
- (C) Urethra
- (D) Vas deferens

3. Which of the following are female reproductive structures?

|     |              |
|-----|--------------|
| I   | Ovaries      |
| II  | Urethra      |
| III | Uterus       |
| IV  | Vas deferens |

- (A) I and III
- (B) II and III
- (C) II and IV
- (D) III and IV

4. Which one of the following processes happens during the first trimester of human embryonic development?

- (A) Fat accumulates
- (B) Organ formation
- (C) Eyelids open
- (D) Zygote formation

5. By the end of the \_\_\_\_\_ trimester, the embryo will begin to resemble an adult.

- (A) first
- (B) second
- (C) third
- (D) none of the above

6. The third trimester is characterized by

- (A) the embryo's heart being formed
- (B) hair covering the body
- (C) growth of the fetus to 3400 g
- (D) all of the above

7. An embryo is called a fetus when

- (A) it first begins to develop specialized cells
- (B) the zygote begins to divide
- (C) the organs of the body begin to form
- (D) it begins to resemble the adult

8. Once an egg is fertilized, cell division will occur only when certain conditions are met. Which one of the following is not a general requirement for embryo development?
- (A) Nutrients  
 (B) A uterus  
 (C) Moderate temperature  
 (D) Protection from predators
9. In human beings, the correct sequence of events during reproduction is
- (A) gamete formation, fertilization, zygote, embryo  
 (B) embryo, zygote, fertilization, gamete formation  
 (C) fertilisation, gamete formation, embryo, zygote  
 (D) gamete formation, fertilization, embryo, zygote
10. In a fetus, the brain and spinal cord are starting to form at
- (A) two weeks  
 (B) four weeks  
 (C) eight weeks  
 (D) twelve weeks
11. Fetal movements are felt at
- (A) four weeks  
 (B) eight weeks  
 (C) twelve weeks  
 (D) sixteen weeks

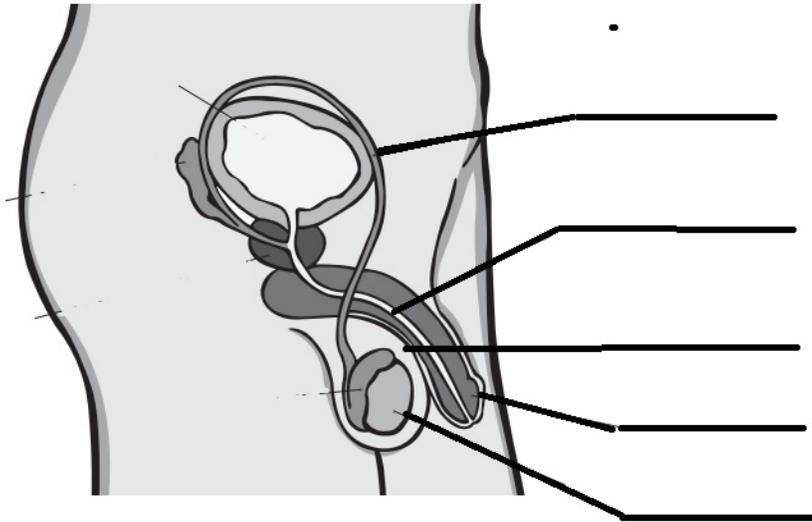
Use the following chart to answer questions 9 and 10.

|     |  |
|-----|--|
| I   | the first and second month after fertilization   |
| II  | the third and fourth month after fertilization   |
| III | the fifth and sixth month after fertilization    |
| IV  | the seventh and eighth month after fertilization |

12. Embryonic development occurs during
- (A) I only  
 (B) I and II only  
 (C) I, II, and III only  
 (D) I, II, III, and IV
13. Fetal development occurs during
- (A) I only  
 (B) II and III only  
 (C) II, III, and IV only  
 (D) I, II, III, and IV
14. Which of the following might indicate that you are pregnant ?
- (A) Your feet hurt  
 (B) Loose weight  
 (C) You want to eat different food  
 (D) Menstruation stops

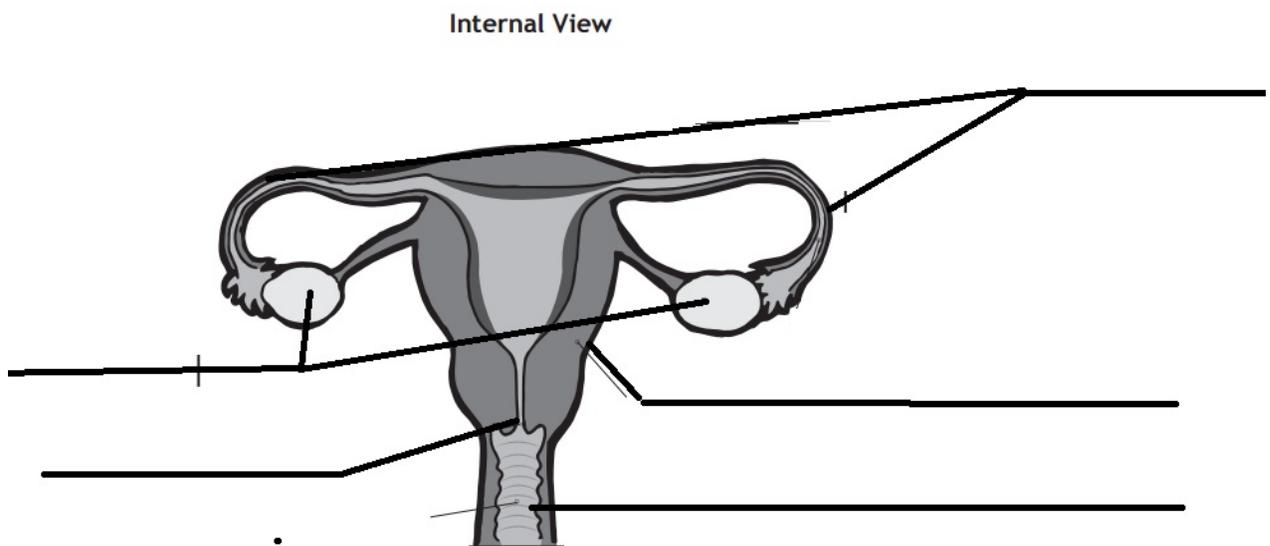
1. Male Reproductive System

Instructions: Label the diagram and write the function of each part below.



2. Female Reproductive System

Instructions: Label the diagram and write the function of each part below.



1. What happens during each of the three trimesters?

| Trimester  | What is happening at this stage of fetal development? |
|------------|---|
| (a) First  |   |
| (b) Second |   |
| (c) Third  |   |