

# CLUES FOR REPRODUCTION CROSSWORD

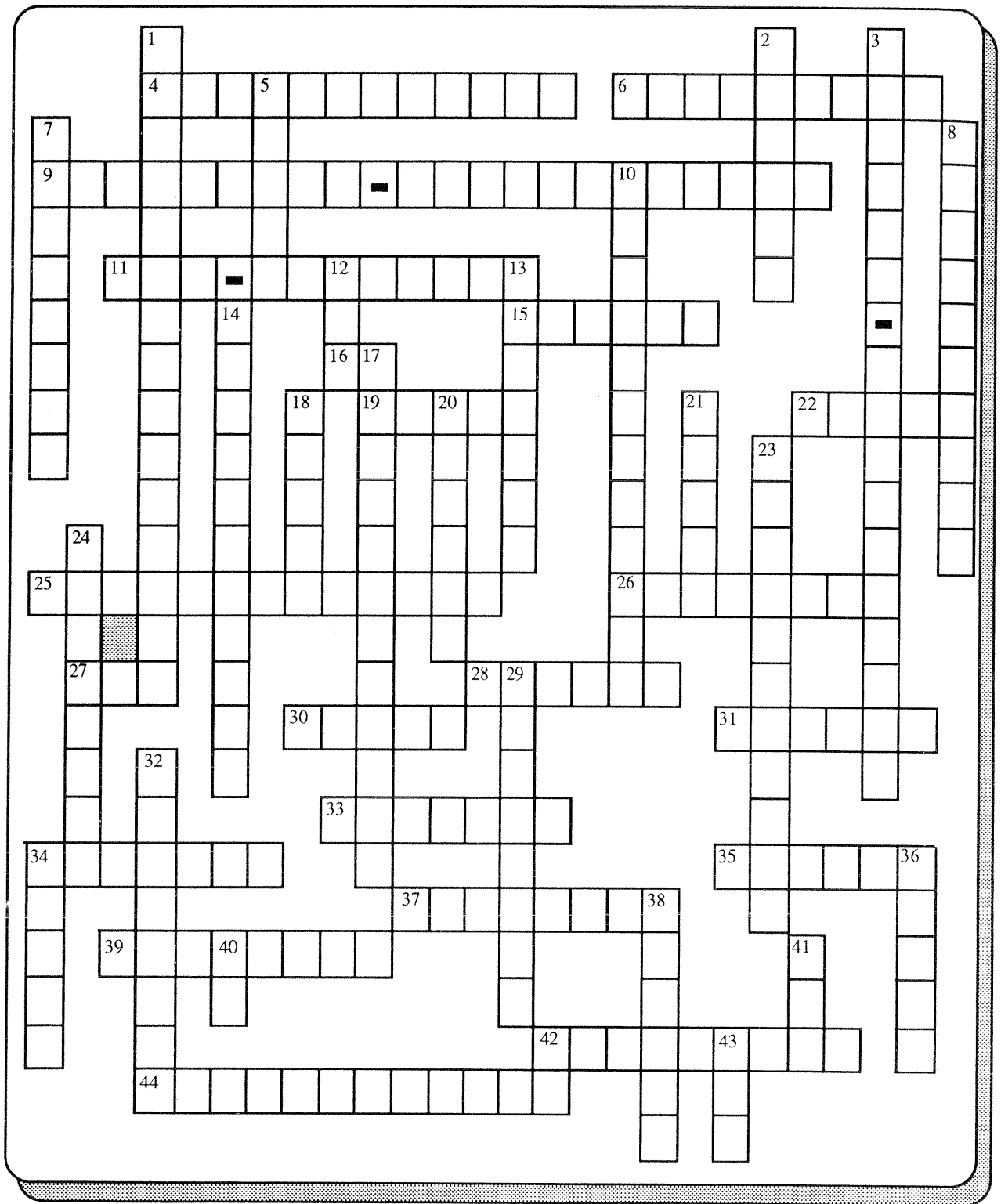
## Across

4. A hormone that maintains the uterine lining after ovulation *progesterone*
6. The release of an ovum *ovulation*
9. A pituitary hormone that maintains the corpus luteum after fertilization *chorionic gonadotropin*
11. Tubules that carry sperm to the ejaculatory duct *vas deferens*
15. Another name for sexual intercourse *coitus*
16. Short for hello *hi*
19. A prefix that means small *micro*
22. An organ that produces sex hormones and gametes in the female *ovary*
25. A hormone, released by the seminal vesicles, that causes uterine contractions *prostaglandin*
26. A hormone that causes uterine contractions in the female during labor *oxytocin*
27. International signal for help *SOS*
28. Produce hormones and sex cells in the male (plural form) *testes*
30. The unborn child three months after conception is called a *fetus*
31. The womb *uterus*
33. A gland in the male that neutralizes the urethra before ejaculation ~~coopers~~ *prostate*
34. A fluid that contains semen is referred to as \_\_\_\_\_ fluid *seminal*
35. The remaining follicle cell that releases progesterone is the corpus *luteum*
37. An important organelle that propels spermatozoa *flagella*
39. A fluid-filled sac in the ovaries that releases hormones and aids in maturing the ova *follicle*
42. The \_\_\_\_\_ cord that attaches the fetal circulation to the placenta *umbilical*
44. Tubule in the testes that makes sperm cells *seminiferous*

## Down

1. A process that occurs in the walls of the seminiferous tubules *spermatogenesis*
2. A muscular tube that receives the penis during sexual intercourse *vagina*
3. Erectile tissue found in the top of the penis and in the clitoris *corpus cavernosum*
5. A general name for a sexual organ that produces gametes *gonad*
7. A vesicle in the head of the sperm that contains digestive enzymes *acrosome*
8. A tube outside of the testes that stores sperm until they can be released *epididymus*
10. A hormone that promotes muscle development and facial hair *testosterone*
12. A hormone that causes an ovum to begin maturing during the beginning of the menstrual cycle *FSH*
13. An external sack that helps to maintain the testes at a lower than body temperature *scrotum*
14. The prostate gland provides the muscular contraction for this *ejaculation*
17. The attachment of the embryo to the uterine lining *implantation*
18. When implantation occurs in the oviducts it is called a \_\_\_\_\_ pregnancy *tubal*
20. Secretes a mucus that can block or encourage sperm's entry into the uterus *cervix*
21. The name given to the undeveloped child the first 3 months of pregnancy *embryo*
23. The internal lining of the uterus that has a rich blood and fluid supply *endometrium*
24. A gland that produces most of the fluid that is found in semen *prostate*
29. A hormone that causes the development of breasts and widens hips in females *estrogen*
32. Sensitive erectile tissue in the female, that is anterior to the vagina *clitoris*
34. A cell in the male that has 23 chromosomes *sperm*
36. A well-behaved Canadian mammal that is about 600X the weight of a squirrel. *moose*
38. The innermost membrane found around the fetus, that is fluid-filled *amnion*
40. A hormone that causes ovulation *LH*
41. Several egg cells *ova*
42. You and me *us*
43. Inter-uterine device *IUD*

# REPRODUCTION CROSSWORD



## Menstruation - Reproduction- Work Sheet 1

Menstruation is the periodic discharge of blood and fluid from the uterus caused by the **(high/low)** levels of estrogen and progesterone at the end of the monthly cycle (hormonal withdrawal).

1. The **(adrenal/pituitary)** gland secretes the follicle-stimulating hormone and luteinizing hormone because of the low levels of estrogen in the blood.
2. FSH and LH stimulate the growth of the **(follicles/cilia)** which contain ova in the ovaries.
3. FSH also causes the ovaries to increase their production of **(estrogen/sperm)**.
4. Increasingly **(large/small)** amounts of estrogen are produced. This causes the endometrium of the uterus to thicken with blood and fluids for possible implantation of a fertilized ovum.
5. When the ovum has matured it is released to the fallopian tubes. The follicles stay behind in the ovaries. This is called ovulation and takes about **(28/14)** days to occur. The woman is now **(fertile/pregnant)** as long as the ovum lives, which is about 3-5 days.
6. A lot of estrogen has been released into the blood and feeds back to the hypothalamus, causing it to **(increase/shut down)** the production of FSH which is no longer needed because the ovum has been released from the **(ovary/uterus)**.
7. After ovulation the remaining follicles **(enlarge/shrink)** and become what is called the corpus luteum. The corpus luteum is like the eggshell of the released egg.
8. The corpus luteum then secretes both estrogen and **(progesterone/testosterone)**. This also prepares the endometrium to **(decrease/increase)** in thickness because of extra blood supply (preparing for implantation of the ovum).
9. If the ovum was not fertilized and implantation did not occur, the **(corpus luteum/corpus cavernosum)** will disintegrate and as a result progesterone and estrogen secretions will halt.
10. If **(excess/no)** estrogen and progesterone are being secreted the endometrium cannot be maintained and is discarded. Hence, there is a menstrual discharge of blood and fluid. This is considered the first day of the menstrual cycle which can last from 3 to 7 days.
11. When the level of estrogen **(increases/decreases)** in the blood, FSH production from the pituitary gland increases and the cycle begins again.

## Reproduction - Work Sheet 3

Match the following:

### I. What each process is:

- |                           |                                                    |
|---------------------------|----------------------------------------------------|
| 1. <u>b</u> ovulation     | a. the emission of seminal fluid                   |
| 2. <u>a</u> ejaculation   | b. the release of the ovum from the ovaries        |
| 3. <u>c</u> fertilization | c. the union of the male and female gametes        |
| 4. <u>d</u> menopause     | d. the period of time when menstruation stops      |
| 5. <u>f</u> implantation  | e. the periodic discharge of blood from the uterus |
| 6. <u>e</u> menstruation  | f. the attachment of the embryo to the endometrium |

### II. Where each process occurs:

- |                             |                         |             |
|-----------------------------|-------------------------|-------------|
| 1. <u>c</u> ovulation       | a. penis                | b. uterus   |
| 2. <u>f</u> fertilization   | c. ovaries              | d. vagina   |
| 3. <u>b</u> implantation    | e. cervix               | f. oviducts |
| 4. <u>g</u> spermatogenesis | g. seminiferous tubules |             |

### III. What each of the following is:

- |                           |                                                                                                                  |
|---------------------------|------------------------------------------------------------------------------------------------------------------|
| 1. <u>g</u> fetus         | a. a fertilized ovum                                                                                             |
| 2. <u>c</u> ovum          | b. male (haploid) gamete cell                                                                                    |
| 3. <u>b</u> sperm         | c. female (haploid) gamete cell                                                                                  |
| 4. <u>a</u> zygote        | d. an organism in the early stages of development before birth                                                   |
| 5. <u>d</u> embryo        | e. a fluid-filled tissue of the ovary in which the egg develops                                                  |
| 6. <u>e</u> follicle cell | f. remaining follicle cells after ovulation - secrete progesterone                                               |
| 7. <u>f</u> corpus luteum | g. an organism after about eight weeks of development - has organs and the beginnings of internal bone structure |

### IV. What each of the following is:

- |                         |                                                                             |
|-------------------------|-----------------------------------------------------------------------------|
| 1. <u>b</u> blastocoel  | a. a ball of cells with distinct cellular layers                            |
| 2. <u>f</u> blastocyst  | b. fluid-filled cavity within the developing zygote                         |
| 3. <u>e</u> blastomeres | c. a wall of single cells lining the newly-formed hollow sphere             |
| 4. <u>c</u> blastula    | d. a cluster-like structure of cells forming 3 days after fertilization     |
| 5. <u>a</u> gastrula    | e. tiny cells in a ball of cells that release fluid into an internal cavity |
| 6. <u>d</u> morula      | f. a ball of cells, attached to the uterine lining, that contains a cavity  |

## Reproduction - Work Sheet 4

### Match the following:

1. What each hormone does:

- |                                  |                                                                                                   |
|----------------------------------|---------------------------------------------------------------------------------------------------|
| 1. <u>e</u> estrogen             | a. maintains the uterine lining                                                                   |
| 2. <u>a</u> progesterone         | b. stimulates sex characteristics in the male                                                     |
| 3. <u>b</u> testosterone         | c. stimulates ovulation and the development of the corpus luteum                                  |
| 4. <u>c</u> luteinizing hormone  | d. stimulates development of the ovum and follicle                                                |
| 5. <u>d</u> follicle-stimulating | e. helps in the development of the uterine lining and secondary sex characteristics in the female |

2. Name each process :

ejaculation  
ovulation  
fertilization  
menopause  
menstruation  
implantation

- |                                                    |
|----------------------------------------------------|
| a. the emission of seminal fluid                   |
| b. the release of the ovum from the ovaries        |
| c. the union of the male and female gametes        |
| d. the period of time when menstruation stops      |
| e. the periodic discharge of blood from the uterus |
| f. the attachment of the embryo to the endometrium |

3. Explain how each of the following is important for reproduction.

- |                         |
|-------------------------|
| a. cervix               |
| b. penis                |
| c. ovaries              |
| d. vagina               |
| e. uterus               |
| f. scrotum              |
| g. oviducts             |
| h. prostate gland       |
| i. seminiferous tubules |

## Reproduction - Hormones - Work Sheet 5

1. Explain the differences between a follicle cell, corpus luteum and an ovum.
2. Explain the hormone cycle in the 28 day menstrual cycle.
3. What is the importance of the hormones involved in labor?

### True/False

1. T Estrogen prepares the uterine lining for implantation.
2. F Progesterone stimulates sex characteristics in the male.
3. F Testosterone is produced by the pituitary gland.
4. T Luteinizing hormone stimulates ovulation and the development of the corpus luteum.
5. F Follicle-stimulating hormone helps in the development of the uterine lining and secondary sex characteristics in the female.
6. F Luteinizing hormone stimulates the development of the ovum and follicle before ovulation.
7. T Progesterone is produced by the corpus luteum.
8. F The widening of hips in the female is a primary sex characteristic.
9. F Oxytocin is a hormone which prevents pregnancy.
10. T A pregnant woman would likely have human chorionic gonadotropic hormone in her blood.