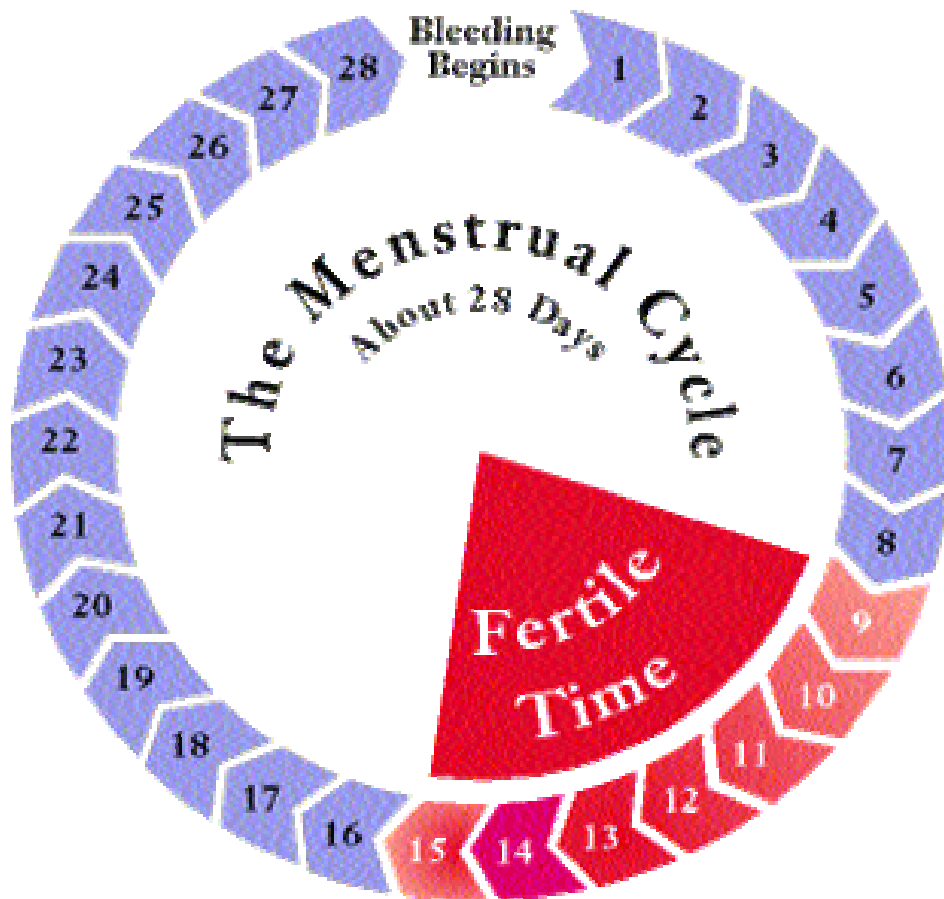


# Science and Health

## THE MENSTRUAL CYCLE





## To the Learner

How old are you? At your age, you may already be experiencing the changes in your body related to your stage of growth. This stage of growth and development is called **puberty**. When a female enters puberty, her reproductive organs begin to mature. She then experiences menstrual cycle. What is menstrual cycle? What is menstruation?



## Let's Learn This

When you finish this module, you will be able to relate the menstrual cycle of the female to the ability to get pregnant or reproduce.



## Let's Try This

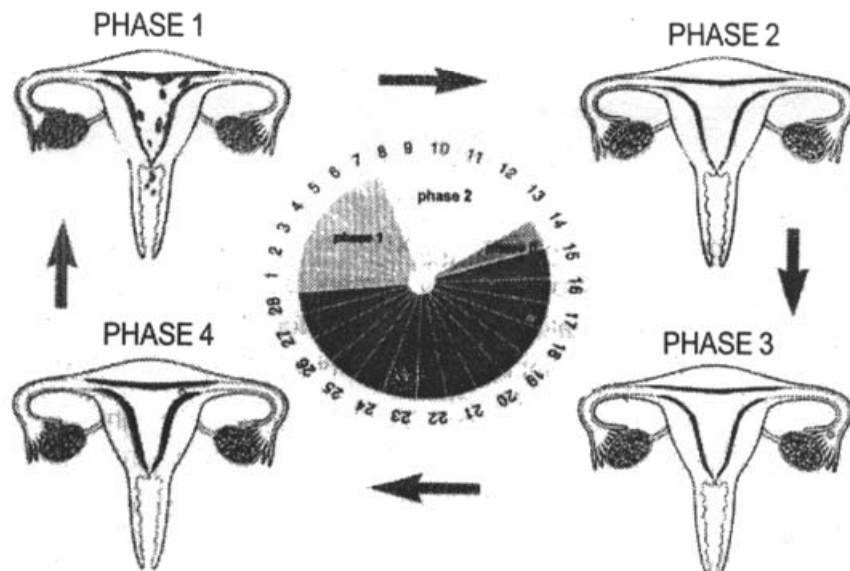
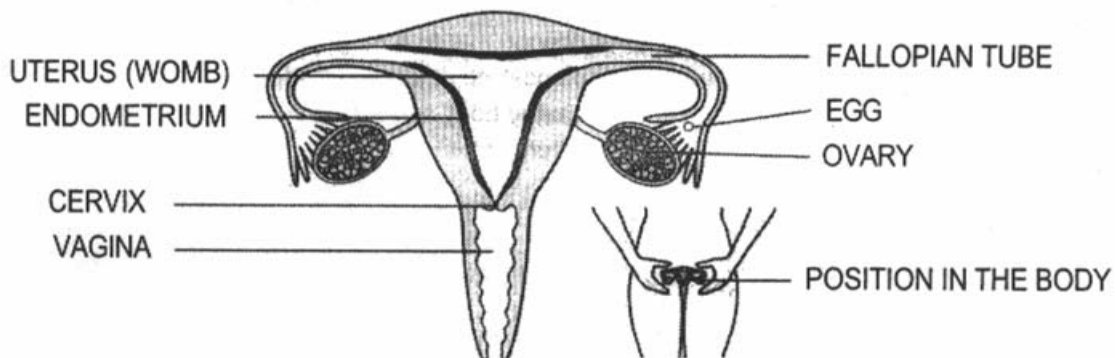
Arrange the following phases of menstrual cycle in sequential order. Write 1-10 on the space before the number.

- \_\_\_\_\_ 1. The process of fertilization may take place.
- \_\_\_\_\_ 2. A new egg cell starts to mature within the ovary.
- \_\_\_\_\_ 3. The lining of the uterus becomes thin after bleeding.
- \_\_\_\_\_ 4. The mature egg travels from the ovary to the uterus.
- \_\_\_\_\_ 5. Uterine linings begin to break down and bleeding results.
- \_\_\_\_\_ 6. An egg in the ovary continues to mature.
- \_\_\_\_\_ 7. The endometrium or lining of the uterus becomes thicker in preparation for the implantation of the fertilized egg.
- \_\_\_\_\_ 8. The mature egg is released.
- \_\_\_\_\_ 9. The mature egg moves to the surface of the ovary just before the mid-cycle.
- \_\_\_\_\_ 10. The next menstrual-cycle is then about to begin.



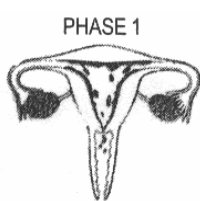
## Let's Study This

### The Menstrual Cycle

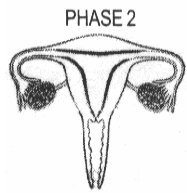


The human female undergoes a monthly cycle of events called the menstrual cycle. The menstrual cycle is a series of changes during which an egg matures and the uterus is prepared for possible pregnancy.

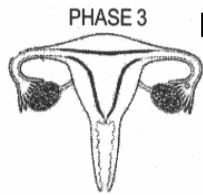
**There are four phases in menstrual cycle, namely**



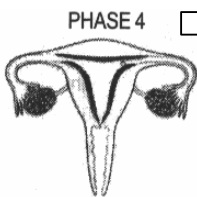
➡ **Phase #1:** This is the menstruation phase. This occurs when fertilization does not occur. The uterine lining begins to break down and bleeding results. Blood, some uterine tissue and the unfertilized egg make their way out through the vagina. This is called the menstrual flow. The flow lasts from 3 to seven days. It marks the beginning of the next menstrual cycle. As menstruation is going on, a new egg is starting to mature within the ovary.



**Phase #2:** The lining of the uterus becomes thin after menstruation. An egg in the ovary continues to mature. Just before the mid-cycle, the mature egg moves to the surface of the ovary.



**Phase #3:** The mature egg is released. This period is called ovulation. The mature egg then travels from the ovary to the fallopian tube as it goes to the uterus. Generally the egg survives within 24 to 48 hours. At this stage, the process of fertilization may take place.



**Phase #4:** The lining of the uterus called the endometrium becomes thicker in preparation for implantation of the fertilized egg. If fertilization **takes place**, the lining of the uterus stays in place. Likewise, no new eggs are released. If fertilization **does not take place**, menstruation happens. The next menstrual cycle is then about to begin.



## Let's Do This

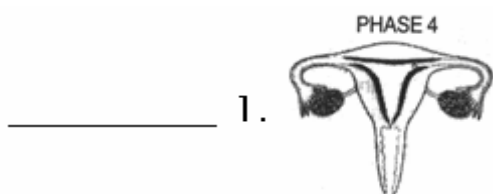
Which phase of the menstrual cycle is being referred to? Write the phase before the number.

Menstrual Phase	Description
	1. The mature egg moves to the surface of the ovary just before the mid-cycle.
	2. Uterine linings begin to break down and bleeding results.
	3. The mature egg travels from the ovary to the uterus.
	4. The endometrium becomes thicker in preparation for the implantation of the fertilized egg.
	5. A new egg cell starts to mature within the ovary.

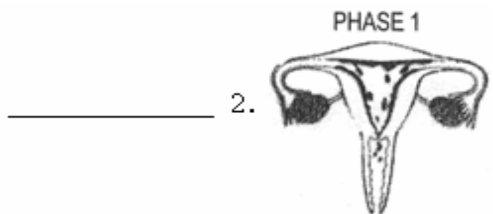
	<p>6. The next menstrual cycle is then about to begin.</p> <p>7. The lining of the uterus becomes thin after bleeding.</p> <p>8. An egg in the ovary continues to mature.</p> <p>9. The mature egg is released.</p> <p>10. The process of fertilization may take place.</p>



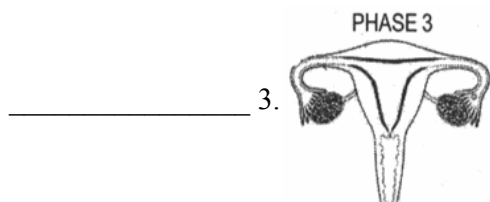
## Let's Do More



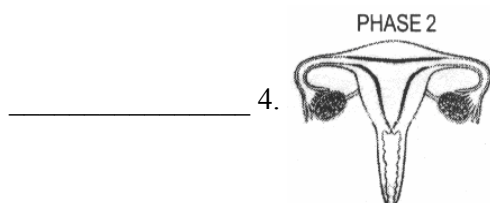
- a. The lining of the uterus becomes thin after menstruation. An egg in the ovary continues to mature. Just before the mid-cycle, the mature egg moves to the surface of the ovary.



- b. The lining of the uterus called endometrium becomes thicker in preparation for implantation of the fertilized egg. If fertilization does not take place, menstruation happens. The next cycle is then about to begin.



- c. This occurs when fertilization does not occur. The uterine lining begins to break down and building results. This is called the menstrual flow. The flow lasts from 3 to 7 days.

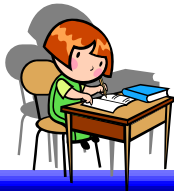


- d. The mature egg is released. This period is called ovulation. The mature egg then travels from the ovary to the uterus.



## Let's Remember This

- **Menstrual cycle** is a monthly series of hormonal changes leading to egg maturation and uterine preparation for a possible pregnancy.
- **Menstruation** is the stage of the menstrual cycle usually lasting from three to seven days during which blood, some uterine tissue, and the fertilized egg are expelled from the vagina.
- **The Menstrual flow** occurs when the egg is not fertilized by a sperm cell.



## Let's Test Ourselves

Choose the letter of the correct answer by writing your answer on the blank.

- \_\_\_\_\_ 1. Menstruation is a sign that a girl is \_\_\_\_\_.
- a. already pregnant.
  - b. capable of producing offspring.
  - c. no longer capable of becoming pregnant.
  - d. already menoposal.
- \_\_\_\_\_ 2. How will you describe menstruation?
- a. It is the discharge of blood from the uterine wall.
  - b. It is the discharge of blood from the ovary.
  - c. It is the discharge of blood from the fallopian tube.
  - d. It is the discharge of blood from the vagina.
- \_\_\_\_\_ 3. When will there be menstruation?
- a. when the egg meets the sperm.
  - b. When the egg reaches the uterus.
  - c. When the egg is released from the ovary.
  - d. When the egg is not fertilized by a sperm.

- 4. During the menstrual cycle, an egg may be released. This process is called -----.
- |                  |              |
|------------------|--------------|
| a. Fertilization | b. Ovulation |
| c. Dilation      | d. Gestation |
- 5. The “**period**” which occurs in females if no fertilization takes place.
- |                 |              |
|-----------------|--------------|
| a. Puberty      | b. Menopause |
| c. Menstruation | d. Ovulation |

### **Science Fact File**

**Progesterone** is a hormone mainly produced by ovaries and placenta in females. It is also produced in small amounts by adrenal glands and by the testes in males.

If pregnancy does not occur, the ovary stops producing high levels of progesterone. The monthly increase of progesterone in a woman’s blood causes many changes in her body functions. For example, the woman’s body temperature increases, and her breasts may enlarge and become especially sensitive.

Physicians use progesterone as a drug to treat disorders of the reproductive system like premenstrual tension and irregular periods. **Synthetic forms of progesterone** are used alone and in combination with synthetic estrogens in making birth control pills.



## Answer Key

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### Let's Try This:

- |      |        |
|------|--------|
| 1. 8 | 6. 4   |
| 2. 2 | 7. 9   |
| 3. 3 | 8. 6   |
| 4. 7 | 9. 5   |
| 5. 1 | 10. 10 |

### Let's Do This

- |            |             |
|------------|-------------|
| 1. phase 2 | 6. phase 4  |
| 2. phase 1 | 7. phase 2  |
| 3. phase 3 | 8. phase 2  |
| 4. phase 4 | 9. phase 3  |
| 5. phase 1 | 10. phase 3 |

### Let's Do More

1. c
2. d
3. a
4. b

### Let's Test Ourselves

1. b
2. a
3. d
4. b
5. c