



SCIENCE CHAMPION

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6
Student Book

Builds conceptual understanding,
reasoning skills, and critical thinking
through science learning



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Science Champion – Student Book 6

Preface



is a science learning book specially designed to help pupils acquire scientific knowledge and understanding, develop skills, values, and attitudes. The scope of topics discussed at each level is arranged according to the science syllabus at the elementary level.



uses a very systematic learning method through the Inquiry approach that has been tested and proven to be an effective approach at improving student's competences in mastering science. The inquiry approach is used by Singapore to improve students' competences which is proven through their consistency as the top rank at PISA (Program for International Student Assessment) and TIMSS (Trends in Mathematics & Science Studies). The development of material for each topic is arranged in stages, starting from the easiest material to more complex material (spiral progression).



gives special emphasis on developing conceptual understanding and critical thinking skills to build a firm foundation in science. After the introduction of new concepts, students are invited to apply what they have learned in collaborative science activities. This book is equipped with a number of activities that will stimulate students' interest in the topic and consolidate their knowledge and understanding.



makes science learning meaningful and fosters a love of science learning in children with the use of colorful and engaging visuals as well as age-appropriate language.

Be a science champion!

Using This Book



has some special features that guide children to understand science concepts through systematic stages. Use them to help you learn as you use this book.

1

Learning Goal sets the learning objective of each lesson.

LESSON 1

Learning Goals

- Identify common laboratory apparatus.
- Demonstrate different science laboratory techniques.
- Practice safety measures while working in a science laboratory.

Common Laboratory Apparatus

Your mother uses appropriate utensils in cooking. You also use appropriate drawing tools in your art subjects. In this lesson, you will learn about the appropriate laboratory tools a scientist and a student like you can use in experiments.

Different laboratory apparatus are carefully designed to enable scientists to perform their experiments effectively. These apparatus have specific functions. Some are used to measure mass or volume, store, stir, heat, and transfer substances.

2

Explore is designed to access the pupils' prior knowledge.

Explore!

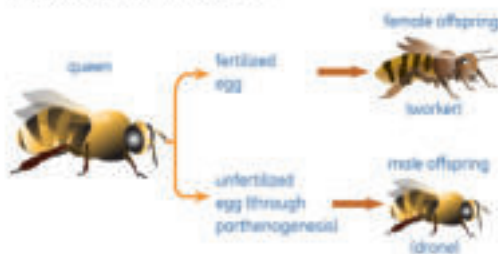
Find a laboratory apparatus that has two functions.



Parthenogenesis

Parthenogenesis is a form of asexual reproduction in which the offspring develops from unfertilized eggs.

Bees, stick insects, and water fleas reproduce by parthenogenesis. Some amphibians, fish, and reptiles, also reproduce by parthenogenesis.



Bees produce workers (female bees) when their eggs are fertilized. Through parthenogenesis, drones (male bees) are born from unfertilized eggs.



Science Bank

The queen bee controls the reproduction of bees. It regulates its eggs. The eggs can become drones, workers, or a new queen.

3

Science Bank presents information that enriches the pupils' knowledge and understanding of the concepts in focus.



Hammerhead sharks produce their young through parthenogenesis when the females have been isolated from the males.

4

Science at Work enables the pupils to explore, discover, and acquire knowledge and skills through simple yet stimulating exercises that they can do at home.

Science at Work


Propagating Plants Asexually

What You Need

- plant (bougainvillea, hibiscus, jasmine, rose, or san francisco)
- water
- knife

What You Need to Do

1. Choose a plant you want to propagate.
2. Choose the artificial method of reproduction appropriate for your chosen plant.
3. Make sure that the plant receives enough amount of water and sunlight.
4. Check the plant every day.
5. Draw the changes you observe in the plant for three consecutive weeks.

Week 1	Week 2	Week 3

Questions

1. What kind of plant did you choose to propagate?

56
CHAPTER 5 Plant Reproduction

5

Looking Over allows the pupils to review the concepts presented in the lesson.

Looking Over


- **Revolution** is the motion of Earth in its orbit around the Sun.
- An **orbit** is an imaginary curved path of a planet around the Sun.




- **Zodiac** is a diagram used to represent the positions of the planets and the stars and is used in astrology to determine how stars affect someone's life.
- **One sidereal year** is the time it takes for Earth to complete one trip around the Sun, which is equal to 365.242 sidereal days.
- A **leap year** occurs once every 4 years and has an extra day added in the month of February. There are 366 days in a leap year.
- Seasons change on Earth because the number of hours of daylight each day changes and the distribution of solar heat varies as the Earth revolves around the Sun.
- The Moon takes 27.3 days to rotate on its axis and to revolve around Earth in the backward direction.
- A complete lunar phase takes 29.5 days and is known as a **synodic month**.

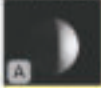




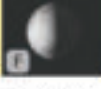


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Chapter 10 Motion of Earth

6


Enhance Your Skills contains exercises designed to further develop the pupils' science skills.

 **Enhance Your Skills**

Fill in the blanks with the letter that corresponds to the correct answer.

1. Which image shows a first quarter moon? ___ last quarter moon? ___
2. Which images show a crescent moon? ___ gibbous moon? ___
3. Which images show a waxing moon? ___
4. Which images show a waning moon? ___
5. Which image shows that the side of the Moon facing the Earth is not illuminated? ___
6. Which images show the phase that can be seen just after sunset or just before morning? ___
7. Which image shows the phase that is at its highest point during midnight? ___
8. Which image shows the phase that is at its highest point during noon? ___
9. Which image shows the phase that will appear around 14 days after the phase shown in image D? ___
10. Which image shows the phase that will appear around 7 days after the phase shown in item number 8? ___



Everyday Science

- An **observatory** is a place where celestial bodies, such as the Moon and stars, may be observed. Why are most observatories located on mountains or at high elevations?

Pelajaran 2 The Moon 235

7

Everyday Science offers simple and practical application of science concepts to the pupils' real-life experiences.

8

Linking Together presents a visual summary of the science concepts presented in the chapter.



Linking Together



9

Chapter Test allows the pupils to evaluate their understanding and mastery of science concepts and processes.

Chapter Test

A. Circle the letter that corresponds to the correct answer.

- Which of the following is an omnivore?
 - caterpillar
 - cow
 - rat
 - tiger
- In what kind of ecosystem do fruit trees belong?
 - coral reef
 - mangrove swamp
 - tropical rainforest
 - all of the above
- Why is a cat categorized as a carnivore?
 - because it feeds only on plants
 - because it feeds only on animals
 - because it feeds on decaying organisms
 - because it feeds on both plants and animals
- What human activity destroys the coral reefs using a poisonous material?
 - diving
 - illegal logging
 - cyanide fishing
 - burning forest

For items 5 and 6, refer to the diagram below.

Sun → grass → grasshopper → snake → hawk

Lesson 2: The Interactions in Ecosystems 101

10

Making Connections presents knowledge and issues, and relates them to the role of science in daily life, society, and the environment.

Making Connections

The Deadliest Animal

Have you ever wondered what the deadliest animals on Earth are? Today, mosquitoes cause the greatest number of deaths in human population. Mosquitoes and the diseases they spread have been responsible for killing people more than all the wars in history combined. For instance, mosquitoes carrying malaria kill 2 million to 3 million people every year. Tens of millions more are killed by other mosquito-related diseases such as dengue, yellow fever, and encephalitis.

Mosquitoes transmit diseases from one human or animal to another. For example, when a mosquito bites an infected human or animal, it takes in the virus along with the blood. The mosquito and virus do not harm one another. Moreover, the virus is able to reproduce inside the mosquito. The mosquito then may bite other humans and pass the virus to them.



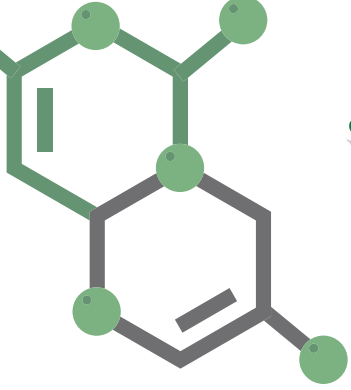


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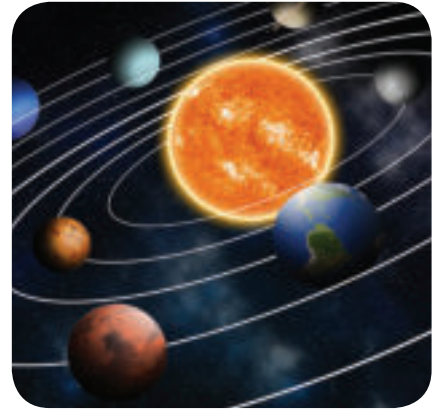
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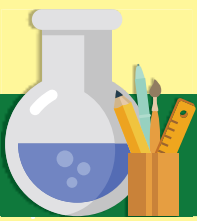
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CHAPTER 1

The Human Reproductive System



Reproduction is the process by which living things make new individuals of the same kind. Humans reproduce through the reproductive system, a system of organs working together. Both the male and the female reproductive systems are involved in producing new individuals.

In this chapter, you will learn about the differences between the human male and female reproductive systems. You will also learn about the changes in the body when an individual reaches puberty.

Learning Goals

- Describe the parts of the male reproductive system and their functions
- Describe the changes that occur in a male's body during puberty



Explore!

What are the parts of the male body that are involved in reproduction?

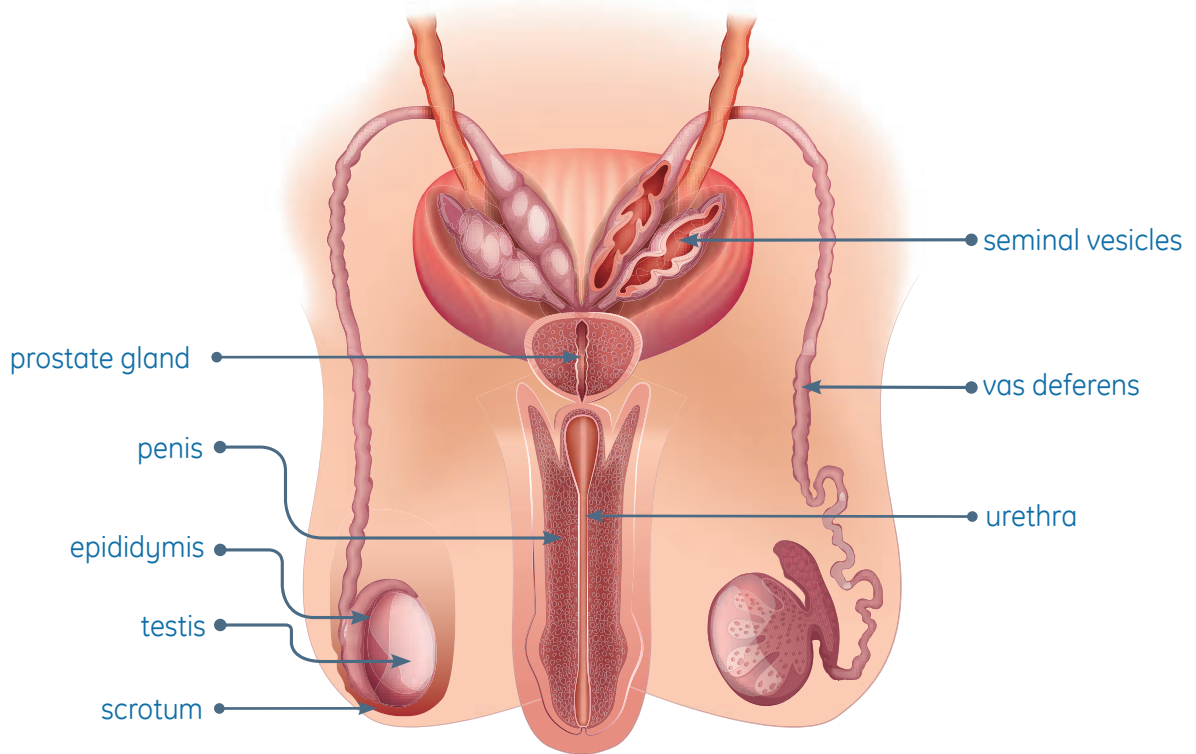
The Male Reproductive System

Like most organisms, humans have two genders, namely, male and female. Each gender has its own unique reproductive organs—ovaries in females and testes in males. Human reproduction would not be possible without these reproductive organs. The male and female reproductive organs may be different in shape and structure, but both function to produce, nourish, and transport reproductive cells—egg cells in females and sperm cells in males.



Parts of the Male Reproductive System

The male reproductive organs are located inside and outside the pelvis. The **pelvis** is the bone located at the lowest part of the abdomen. These structures are shown in the diagram below.



The **epididymis** is a set of coiled tubes attached to each testicle. It is where sperm cells are stored. From here, the sperm cells are transported to the vas deferens.

The **penis** has a small slit or opening through which urine and semen exit the body. At birth, the penis has a fold of skin or **foreskin**, which is cut during circumcision.

The **prostate gland** produces some of the components of semen. **Semen** is a white liquid that contains **sperm**, the male reproductive cell.

The **scrotum** is the pouch-like structure located behind the penis that contains the epididymis, testicles (testes), and vas deferens. The scrotum regulates the temperature of the testes. When the body is cold, the scrotum shrinks and becomes smaller to hold in body heat. When it is warm, the scrotum stretches and becomes bigger to get rid of extra heat. The shrinking and stretching of the scrotum happens involuntarily.



Science Bank

Hormones are substances that are secreted by the body to control body processes. Testosterone is a male sex hormone.

The **seminal vesicles** are sac-like structures attached to the vas deferens near the base of the bladder. Seminal vesicles secrete a fluid that nourishes the sperm.

The **testicles** or **testes**, are oval-shaped organs that produce and store millions of sperm cells. Sperm is produced when the temperature of the testes is lower than that of the body. The testes also produce **testosterone**, the male sex hormone that causes male bodies to undergo changes and produce sperm.

The **urethra** is the tube that carries semen out of the penis. This is also the same tube through which urine passes out of the body.

The **vas deferens** is a muscular tube that transports the sperm from the epididymis to the urethra.

How are sperm cells formed?

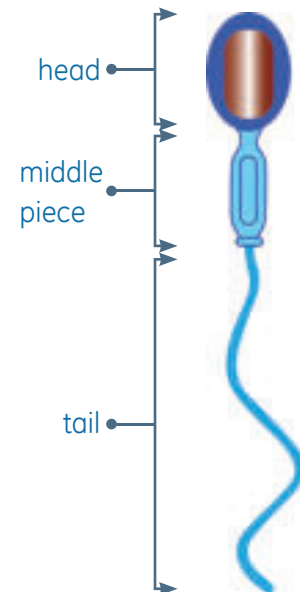
Cells reproduce by **cell division**. One cell divides to form new cells. In humans, there are two types of cell division: mitosis and meiosis. **Mitosis** is the way body or somatic cells reproduce. **Meiosis**, on the other hand, is the way sex cells or gametes are formed.

Spermatogenesis is the process by which sperm, the male sex cell or gamete, is formed.

Spermatogenesis happens in the testes, beginning at puberty and continuing for the rest of a male's life.

Puberty in males

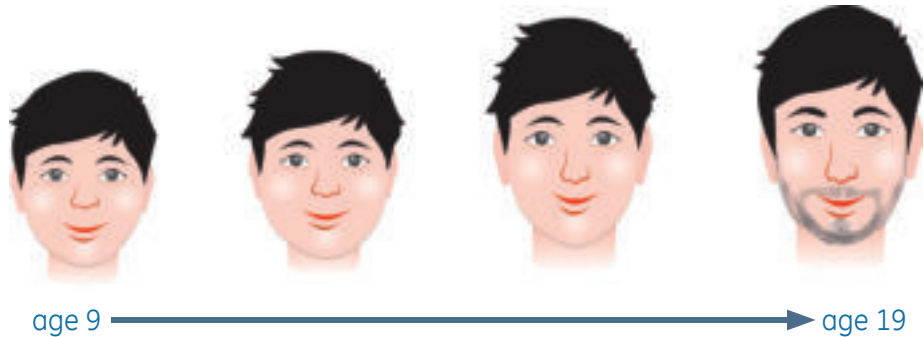
Puberty is the stage during which a person's reproductive system matures.



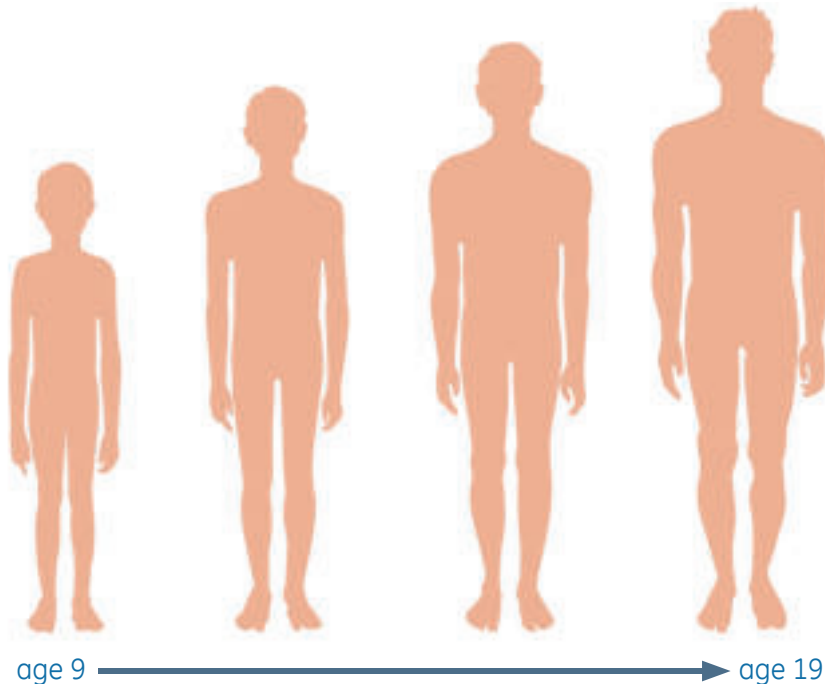
A mature sperm consists of a **head**, **middle piece**, and **tail**.

Puberty begins between ages 9 and 15. During puberty, the testes produce testosterone. The production of testosterone brings about many physical changes in the male body. The changes that happen to a male body during puberty include the following:

1. The scrotum and testes become bigger.
2. The penis becomes longer.
3. The prostate gland and seminal vesicles grow.
4. Hair begins to appear in the pubic area and later grows on the face and underarms.



5. The voice deepens.
6. Height and weight increase.



Common disorders of the male reproductive system

Males may sometimes experience problems in their reproductive system. Below are some examples of disorders that may affect the male reproductive system.

Cryptorchidism. A condition in which one or both testes fail to descend into the scrotum. If not corrected before puberty, usually by surgery, it can lead to sterility and increased risk of testicular cancer.

Hydrocele. A condition that happens when liquid accumulates in the membranes surrounding the testes. It is painless, but it causes swelling in the scrotum around the testes. In some cases, surgery may be needed to treat the condition.

Varicocele. The swelling or enlargement of veins in the scrotum. This is similar to a **varicose vein**, a swollen vein that often develops in legs. A varicocele is usually not harmful, although it may cause a decrease in sperm production.

Testicular cancer. A condition that happens when cells in the testes divide abnormally and form a tumor. It is one of the most common cancers in males younger than 40. Testicular cancer can spread to other parts of the body. However, a person having the disease has a greater chance of survival if it is detected early.



Science Bank

The body is made up of cells. Inside most of these cells are **chromosomes**, which contain hundreds or even thousands of genes. **Genes** determine physical traits, such as the color of one's eyes.

How to care for the male reproductive system

1. Familiarize yourself with the male reproductive system and its structures.
2. Check if there are noticeable problems such as hard lumps; smooth or rounded bumps; and changes in size, shape, or consistency.
3. See a urologist if you notice any symptoms of reproductive disorder.

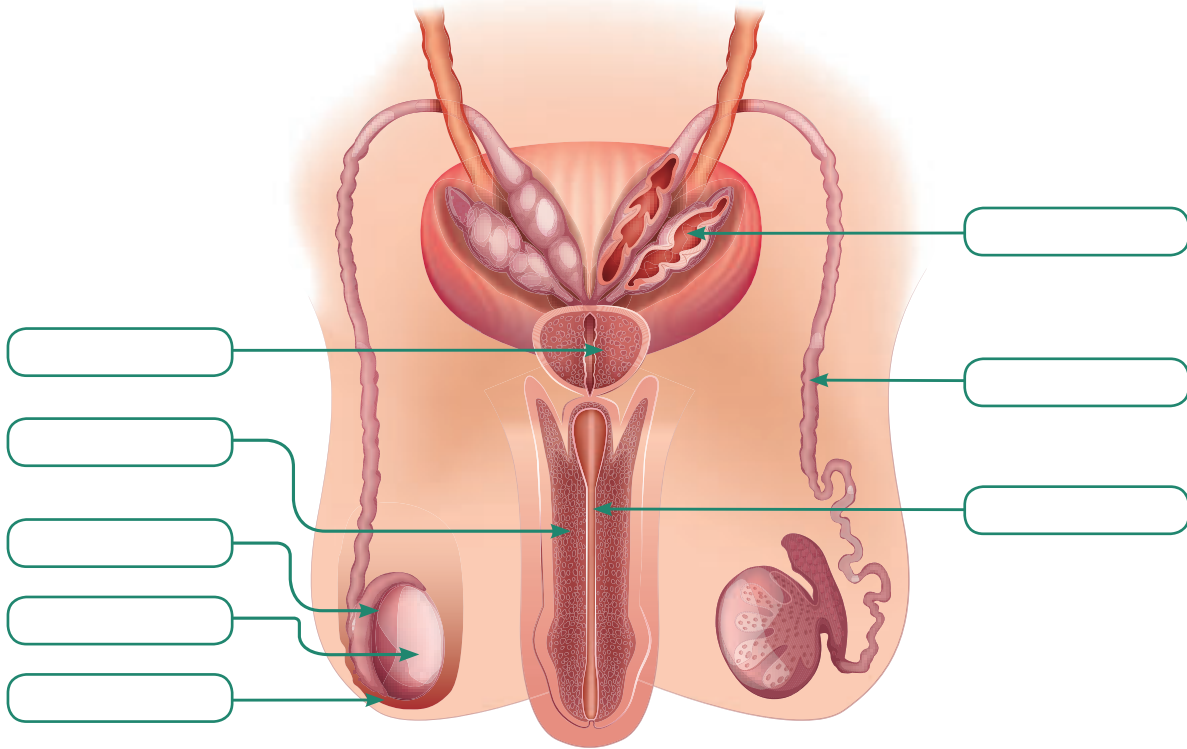


Looking Over

- Human reproduction would not be possible without the reproductive organs, which produce the reproductive cells.
- The male and female reproductive parts are located inside and outside the **pelvis**, the bone located at the lowest part of the abdomen.
- The **prostate gland** produces some of the components of **semen**, a white liquid containing sperm and the fluids that nourish the sperm.
- The **penis** has a small slit or opening through which semen and urine are released from the body.
- The **scrotum** regulates the temperature of the testes.
- **Seminal vesicles** are sac-like structures attached to the vas deferens; these secrete a fluid that nourishes the sperm.
- The **vas deferens** is a muscular tube that transports the semen to the urethra.
- The **epididymis** is a set of coiled tubes attached to each testicle.
- **Testicles** or testes are oval-shaped male organs that produce and store millions of sperm cells.
- **Spermatogenesis** is the process by which the sperm cell, the male sex cell or gamete, is formed.
- **Puberty** is the stage during which a person's reproductive system matures.
- **Cryptorchidism** is a condition in which one or both testes fail to descend into the scrotum.
- **Hydrocele** is a condition that happens when liquid accumulates in the membranes surrounding the testes.
- **Varicocele** is the swelling or enlargement of veins in the scrotum.
- **Testicular cancer** occurs when cells in the testes divide abnormally and form a tumor.

Enhance Your Skills

Label the parts of the male reproductive system.



Everyday Science

What can happen if a male does not have the right testosterone level?

Lesson 2

Learning Goals

- Describe the parts of the female reproductive system and their functions
- Describe the changes that occur in a female's body during puberty
- Explain the menstrual cycle
- Give ways of taking care of the reproductive system



Explore!

What are the female body parts that are involved in reproduction?

The Female Reproductive System

The female reproductive system plays a very important role in the human reproductive process. Although a male's sperm is needed to produce an offspring, the fetus develops inside the womb of a female.

This lesson provides an overview of the female reproductive system and how it works in reproduction.



Parts of the Female Reproductive System

Unlike the male, the female has a reproductive system located inside the pelvis.

The external parts of the female reproductive system

The **vulva**, which means covering, is the outer part of the female reproductive system. The vulva covers the vaginal opening and other reproductive organs located inside the female's body.

The **clitoris**, a small sensory organ, is located where the folds of the labia join together.

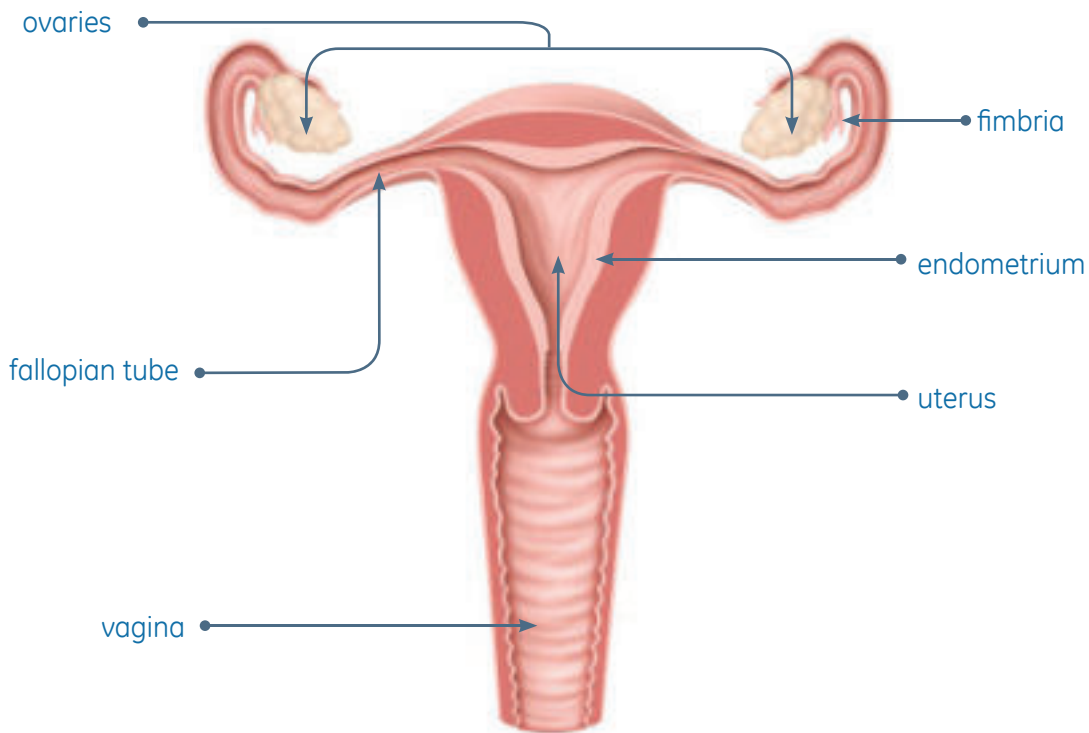
The **labia**, a pair of folded skin, surround the vaginal opening.

The **mons pubis** is a fleshy area located just above the top of the vaginal opening. It develops pubic hair during puberty.

The **vaginal opening** provides the exit through which blood is released during menstruation.

The internal parts of the female reproductive system

The female's internal reproductive organs are made up of the **fallopian tubes**, **ovaries**, **uterus**, and **vagina**.



The **endometrium** is the lining of the uterus.

The **fallopian tube** is about as wide as a piece of spaghetti. It is where an egg cell passes through. There are two fallopian tubes, each attached to a side of the uterus.

Fimbriae (singular: fimbria) are finger-like projections that cover the end of the fallopian tube.

The **ovaries** are oval-shaped organs located at the upper right and left sides of the uterus. They produce, store, and release egg cells. An egg cell is released into the fallopian tube during ovulation. The ovaries also produce **estrogen**, the female sex hormone that causes females to undergo body changes.

The **uterus**, also known as the **womb**, is shaped like an upside down pear. The uterus contains some of the strongest muscles in the female body. These muscles are capable of expanding and contracting to accommodate a growing fetus and to help in pushing the baby out during child birth.

The **vagina**, also called **birth canal**, is a hollow tube that extends from the vaginal opening to the uterus. The vagina has muscular walls that allow it to contract and expand. The walls of the vagina are lined with mucous membranes that keep the vagina moist. The vagina serves as a passageway through which a baby is delivered during childbirth.

How is an egg cell formed?

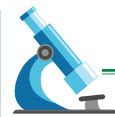
The egg cell, the female sex cell or gamete, is formed by **oogenesis**. This process begins in a female's ovaries during fetal development. During this stage of development, cells called **oogonia** develop into **primary oocytes**.

Years later, at puberty, hormones cause oogenesis to continue.



Science Bank

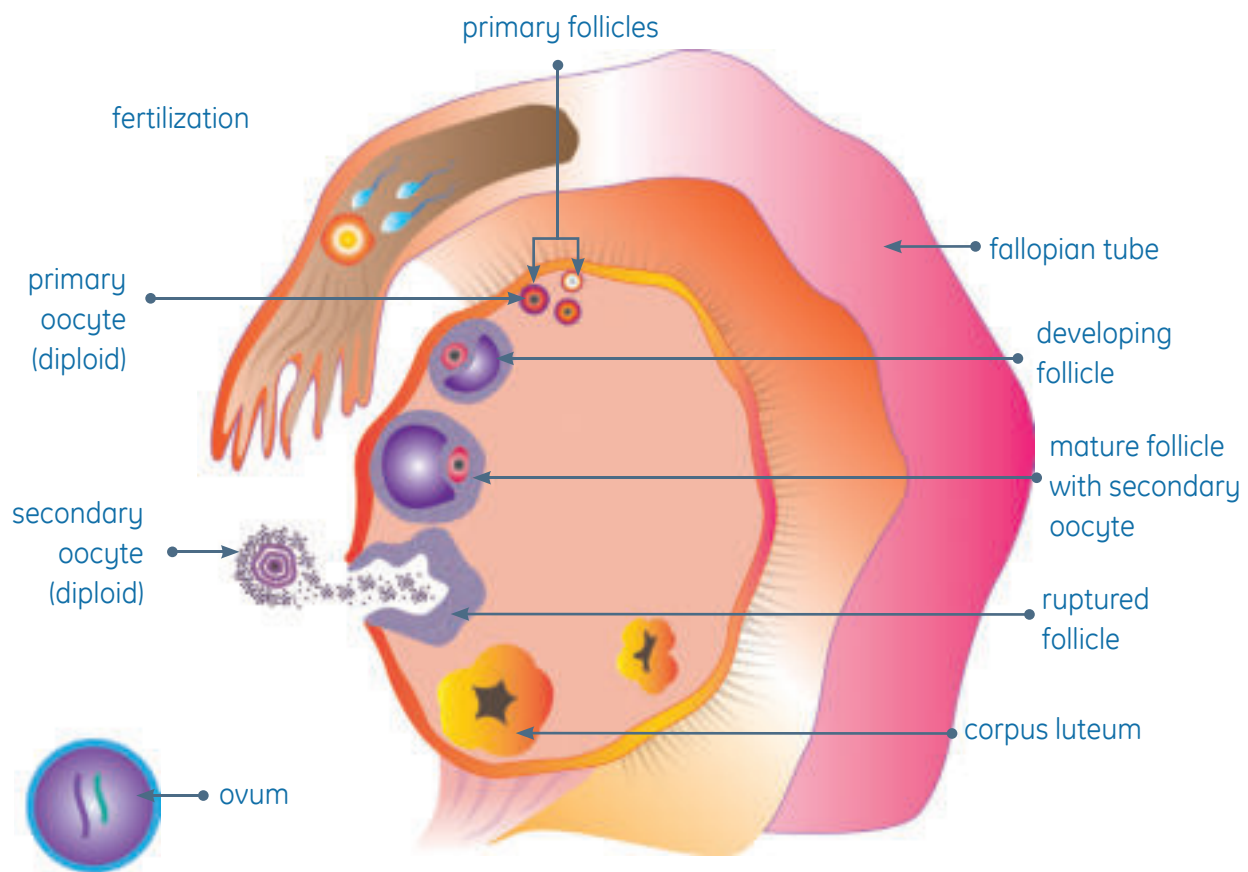
The female's egg or **ovum** is the largest human cell. The egg measures approximately 0.15 to 0.2 millimeter in diameter.



Science Bank

Ovulation happens when an egg is released from the ovary, pushed toward the fallopian tube, and becomes available for fertilization.

During each menstrual cycle, one primary oocyte leaves the ovary in a process called **ovulation**. If fertilization occurs, the oocyte becomes a fertilized mature egg or ovum.



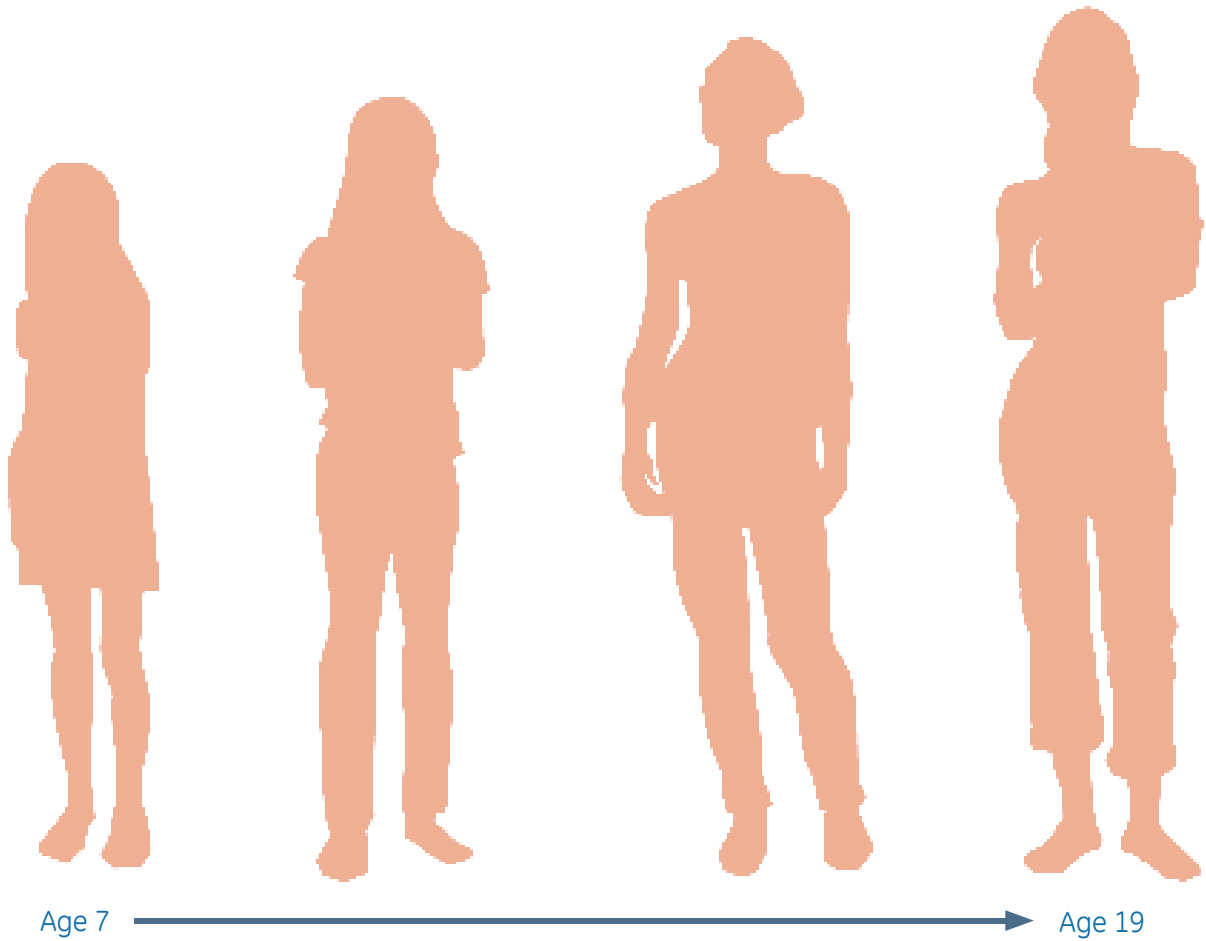
Puberty in females

When a female baby is born, her ovaries contain hundreds of thousands of eggs that remain inactive until the beginning of puberty. At puberty, the ovaries produce female sex hormones. These hormones cause the female's reproductive system to mature. Also, the hormones cause physical changes in the female's body.

The changes that happen in a female's body during puberty include the following:

1. The breasts increase in size.
2. The hips widen.
3. Hair begins to grow in the armpits.

4. Pubic hair grows in the genital area.
5. Height and weight increase.



6. Menstrual cycle begins.

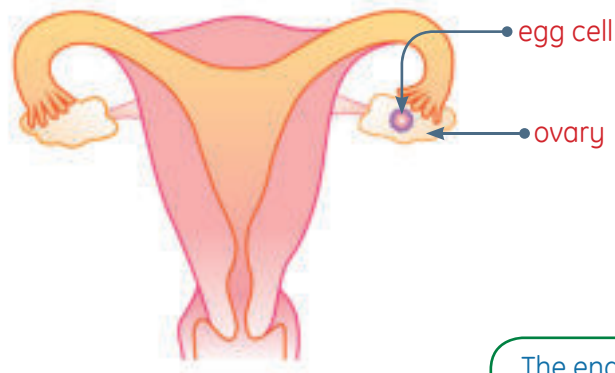
The menstrual cycle

At puberty, a female begins to release egg cells and undergoes a monthly period called the **menstrual cycle**.

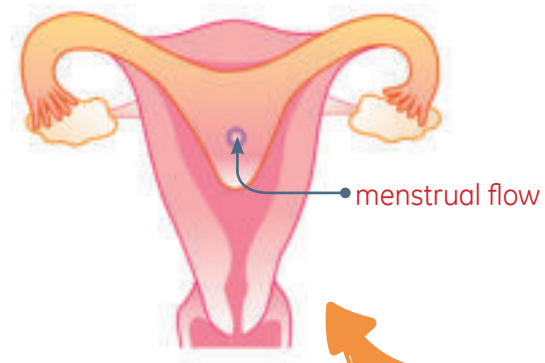
Menstruation is the release of blood and some of the thickened endometrium when an egg fails to undergo fertilization. This means that no sperm unites with the egg to form a zygote.

Menstruation is also called **period**. A female's first period is called **menarche**.

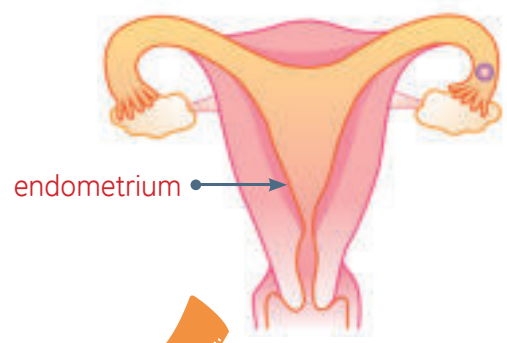
1 During ovulation, the ovary releases a mature egg into one of the fallopian tubes.



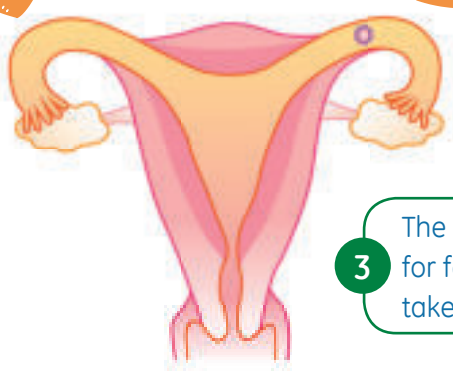
4 When the egg is not fertilized by a sperm, the egg dries up. Both the egg and the lining of the endometrium in the uterus are expelled from the body. **Menstrual flow**, which often lasts from 3 to 5 days, happens on a monthly basis.



2 The endometrium thickens as preparation to nourish the egg if fertilized by a sperm.



3 The mature egg waits for fertilization to take place.



What is premenstrual syndrome?

Premenstrual syndrome, abbreviated as **PMS**, is a common experience of discomfort for females before menstruation. It includes both physical and emotional symptoms such as bloating, depression, fatigue, irritability, and sore breasts.



Premenstrual syndrome can also induce mood swings for some females.

Many females also experience abdominal cramps during the first few days of menstruation. The cramps are caused by **prostaglandins**, the substances in the body that make the smooth muscles in the uterus contract. The muscle contraction may be painful.

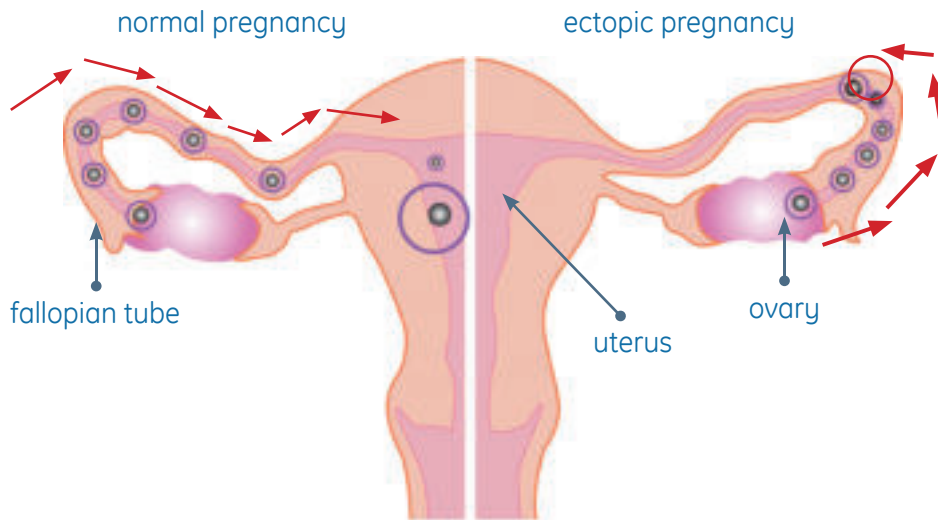
It may take up to two years from menarche for a female's body to develop a regular menstrual cycle. On the average, the monthly cycle for an adult female is 28 days, but the range is from 23 to 35 days.

Common disorders of the female reproductive system

Females may sometimes experience problems in their reproductive system. Following are some examples of disorders that may affect the female reproductive system.

Endometriosis. A condition that happens when a tissue normally found only in the uterus starts to grow outside the uterus, such as in the ovaries or fallopian tubes. Endometriosis can cause abnormal bleeding, painful periods, and pelvic pain.

Ectopic pregnancy. A condition that happens when a fertilized egg or zygote does not move into the uterus. Instead, the fertilized egg grows outside the uterus, mostly in the fallopian tube. Females with this condition can experience severe abdominal pain and should see a doctor because it may require surgery.



Polycystic ovary syndrome. This is a hormone disorder in which more male hormones than normal are produced by the ovaries. This condition causes the ovaries to become enlarged and develop many fluid-filled sacs or cysts. This disorder often first appears during the teenage years. Depending on the type and severity of the condition, it may be treated with medicines to regulate hormone balance and menstruation.

If you think you have symptoms of a problem with your reproductive system or if you have questions about your growth and development, talk with your parents, teacher, or doctor. Many problems in the reproductive system can be treated if acted upon immediately.

Proper care of the reproductive system

Your reproductive organs are as important as your other body parts, such as the face, nose, ears, hands, and legs. You should take good care of them.

How do you take good care of your reproductive system? Here are some ways:

1. Take a bath twice a day.
2. Clean your genital area every day. Wash your genital area thoroughly with water after using the toilet.
3. Keep your genitals dry.
4. Use clean undergarments and change them regularly.
5. Wash your underwear properly and keep them in a clean, dry place.
6. For females, you must use a clean sanitary napkin during menstruation. You should change it as often as necessary depending on the amount of menstrual flow. Also, remember that used napkins should be wrapped very well and disposed of properly.
7. Take steps to become healthy. A healthy diet, regular exercise, and stress management will help keep your reproductive system, along with all your body's systems, in good shape.





Taking Care of My Reproductive System

What You Need

pen and paper

What You Need to Do

1. Check the column that describes how you take care of your reproductive system.

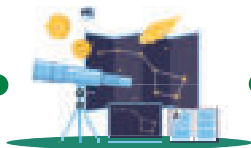
Health Practice	Always	Seldom	Never
1. I take a bath every day.			
2. I wash my external reproductive organs thoroughly using soap and clean water.			
3. I make sure my undergarment is clean and dry before I use it.			
4. I drink 8 to 10 glasses of water every day.			
5. I eat fruits and vegetables every day.			
6. I avoid fatty and salty food.			
7. I keep my undergarments in a clean cabinet.			
8. I wear only my own underwear.			
9. I avoid polluted places.			
10. I avoid cigarette smoke.			

2. Based on your answers in the checklist, list down the health practices that you seldom or never do (if there are any). Beside each practice, write down its importance. Also, write one way to remind yourself of these practices.

Questions

1. Which of these practices do you always do?

2. What can you do to remind yourself of the need to take care of your body?



Looking Over

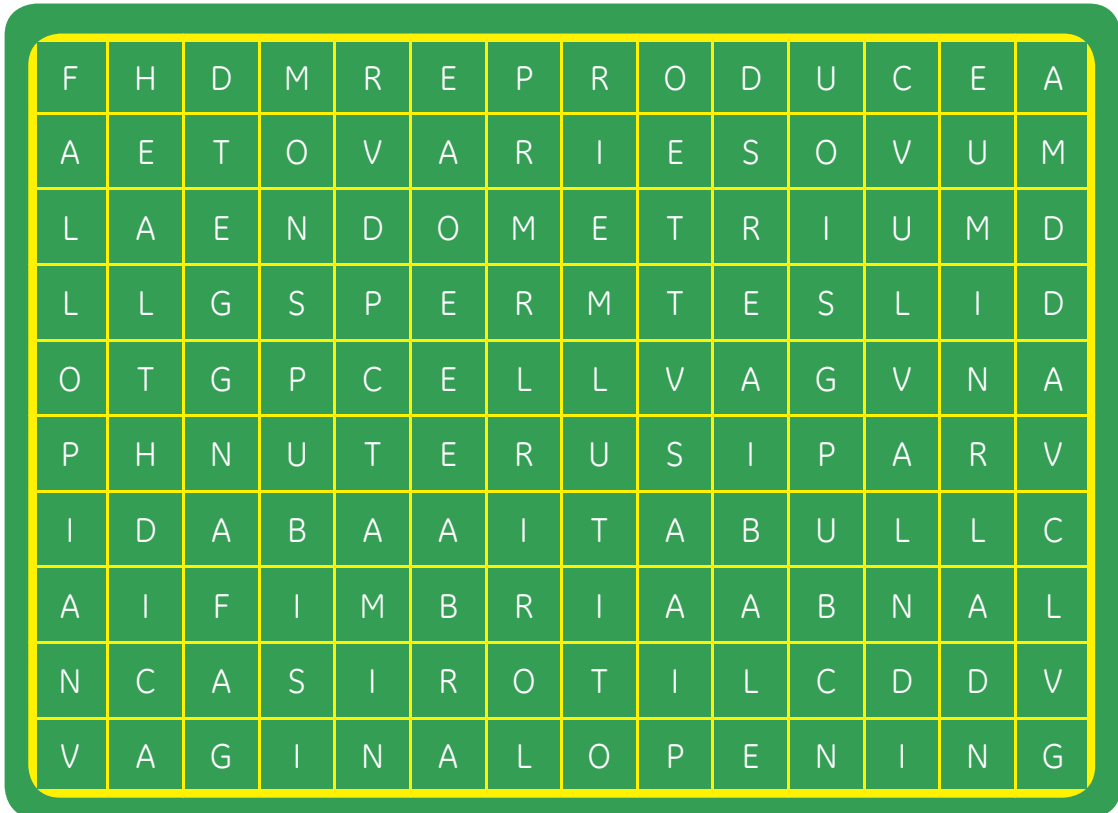
- The **vulva** is the outer part of the female reproductive system.
- The **clitoris**, a small sensory organ, is located where the folds of the labia join together.
- The **labia**, a pair of folded skin, surround the vaginal opening.
- The **mons pubis** is a fleshy area located just above the top of the vaginal opening.

- The **vaginal opening** provides the exit through which blood is released during menstruation.
- The **ovaries** are oval-shaped female gonads at the upper right and left sides of the uterus.
- The ovaries produce, store, and release egg cells into the fallopian tubes in the process called **ovulation**.
- **Fallopian tubes** are two tubes where egg cells pass through from the ovaries to the uterus.
- The **endometrium** is the lining of the uterus.
- The **uterus**, also known as the **womb**, is shaped like an upside down pear.
- The **vagina**, also called **birth canal**, is a hollow tube that extends from the vaginal opening to the uterus.
- **Oogenesis** is the process by which the female sex cell or gamete is formed.
- At puberty, females begin to release eggs and undergo a monthly period called the **menstrual cycle**.
- **Menstruation** is the release of blood and some of the thickened endometrium when an egg fails to undergo fertilization.
- **Fertilization** is the union of a sperm and an egg to form a zygote.
- **Endometriosis** happens when the tissue normally found only in the uterus starts to grow outside the uterus, such as in the ovaries or fallopian tubes.
- **Ectopic pregnancy** happens when a fertilized egg or zygote does not travel into the uterus.
- **Polycystic ovary syndrome** is a hormone disorder in which more male hormones than normal are produced by the ovaries.

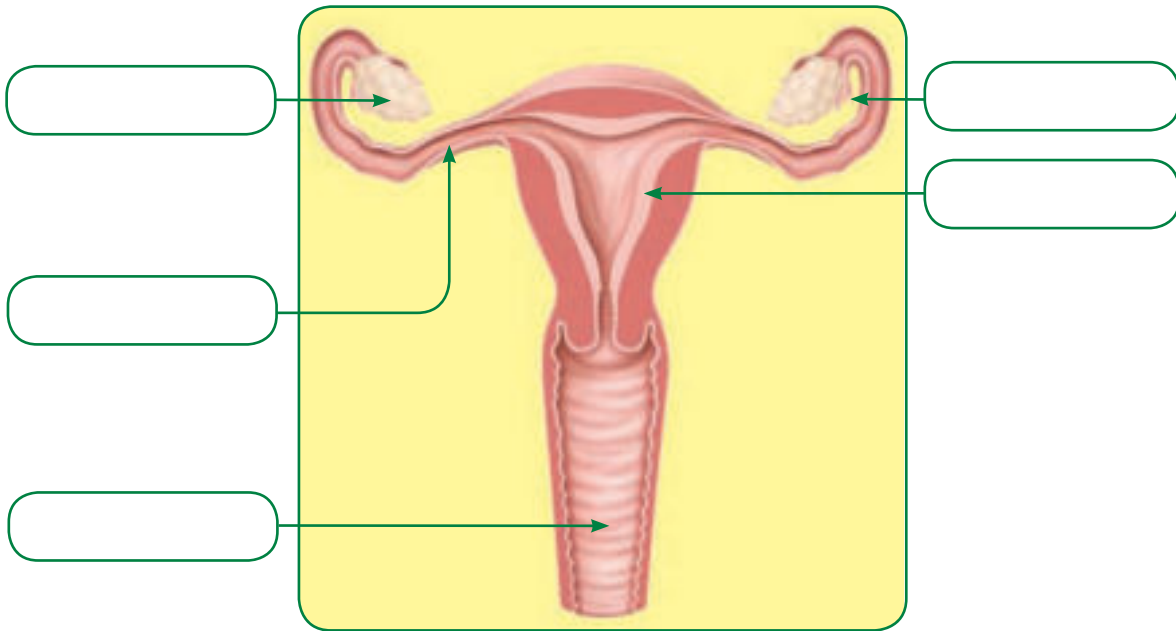


Enhance Your Skills

- A. Identify the term being described. Find it in the word grid and then box the word.
1. It is the outer part of the female reproductive system. It covers the vaginal opening and other reproductive organs located inside the female's body.
 2. It is a small sensory organ located where the folds of the labia join together.
 3. This is a fleshy area located just above the top of the vaginal opening. It develops pubic hair during puberty.
 4. This provides the exit through which blood is released during menstruation.



B. Label the parts of the female reproductive system.

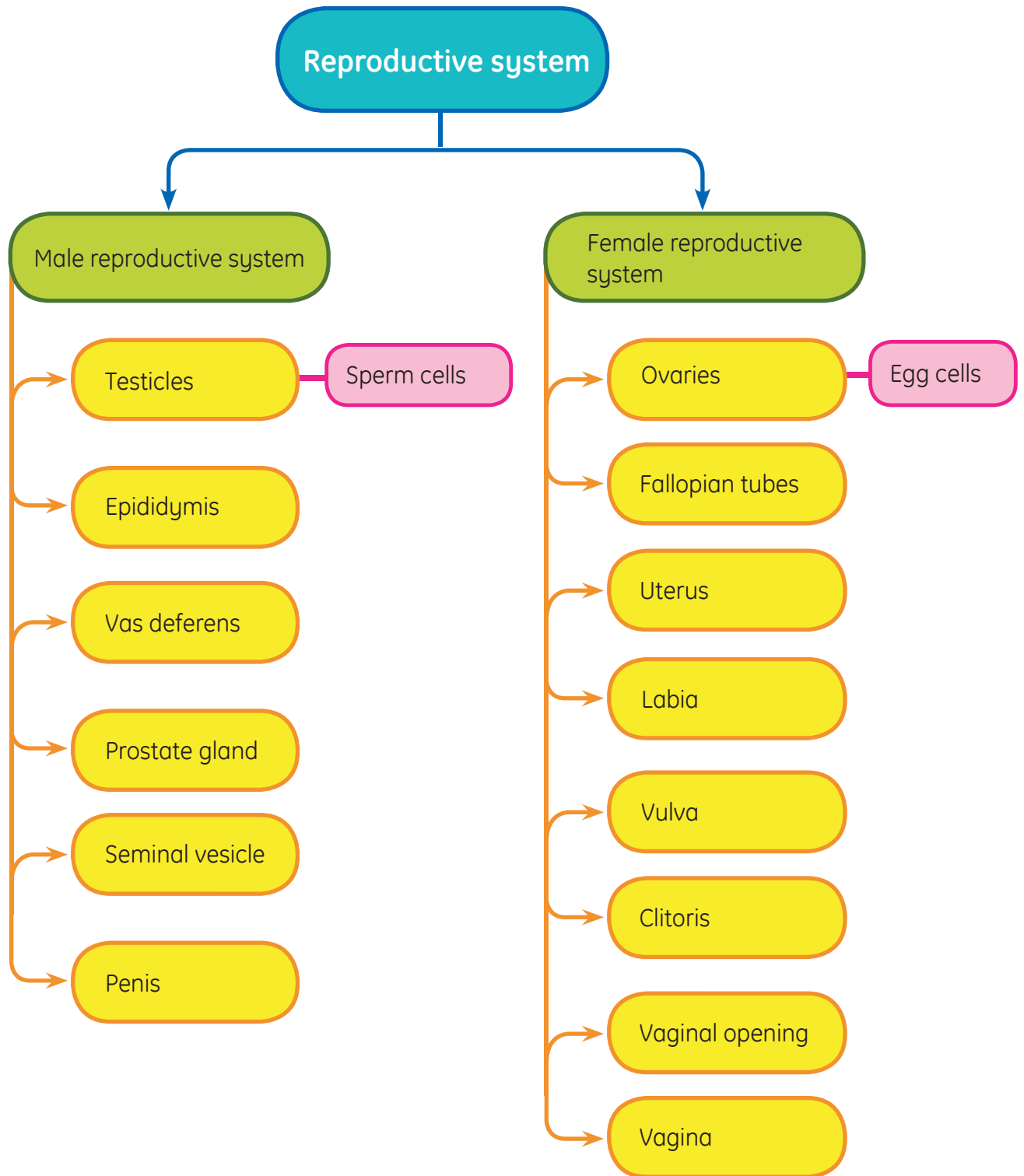


Everyday Science

What might happen if a female does not have a normal menstrual cycle?



Linking Together



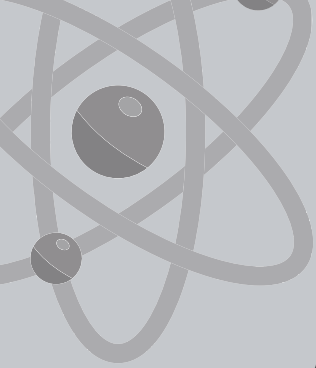


Chapter Test

Circle the letter that corresponds to the correct answer.

- The process by which living things make new individuals of same kind is called _____.
 - reproduction
 - fertilization
 - menstruation
 - ovulation
- Which of the following are the male sex organs that produce sex cells?
 - ovaries
 - penis
 - testicles
 - vas deferens
- Which part has a problem if the temperature of the testicles is not regulated?
 - epididymis
 - scrotum
 - pelvis
 - penis
- Which of the following is the fleshy area located above the top of the vaginal opening?
 - mons pubis
 - ovary
 - uterus
 - vagina
- Which of the following are the two pairs of skin surrounding the vaginal opening?
 - clitoris
 - labia
 - vagina
 - vulva

6. Which serves as the passageway of a baby during birth?
 - a. clitoris
 - b. fallopian tube
 - c. vagina
 - d. vulva
7. A doctor checked a pregnant woman. In which organ should the doctor expect the fetus to develop?
 - a. mons pubis
 - b. ovary
 - c. uterus
 - d. vagina
8. When can menstruation take place?
 - a. when an egg cell is fertilized
 - b. when an egg cell is released by the ovary
 - c. when an egg cell and a sperm cell do not unite
 - d. when an egg cell travels along the fallopian tube
9. Which of the following is a condition that happens when the fertilized egg grows outside the uterus?
 - a. varicocele
 - b. hydrocele
 - c. testicular cancer
 - d. ectopic pregnancy
10. Which of the following is not a proper way of taking care of the reproductive organs?
 - a. take a bath twice a day
 - b. clean your genital area every day
 - c. change undergarments at least once every three days
 - d. wash your underwear properly



Making Connections

Acquired Immune Deficiency Syndrome or AIDS

Despite many prevention efforts and advances in diagnosis and treatment, acquired immune deficiency syndrome, abbreviated as AIDS, remains to be a major concern in many countries. AIDS is caused by the human immunodeficiency virus, abbreviated as HIV.

HIV destroys part of the immune system. Particularly, it affects a type of white blood cell called the **T cell**. T cells are fighter cells that help the body fight all kinds of germs and diseases.

Someone who is infected with the virus is an HIV-positive person. But it may take years for the virus to damage enough T cells and cause that person to get sick and develop AIDS. Although the HIV-positive person may feel fine, the virus silently reproduces itself and destroys the T cells. When the person's immune system has weakened and more of the blood's T cells have been destroyed by the virus, the person's body can no longer fight infections properly.

