

## Procedure

### ACTIVITY 1: "THE PUBERTY FAIRY" AND SECONDARY SEX CHARACTERISTICS

1. Begin class by telling the students about an imaginary figure, the "Puberty Fairy," who comes into their room one night while they are sleeping and sprinkles them with "puberty dust." The next day, they have magically changed from a boy into a man, or from a girl into a woman!
2. After students tell you that there is no such event, ask them, "If you don't believe in the Puberty Fairy, what actually causes boys and girls to go through puberty?" (The answer is *hormones*.) Tell them, "In addition to the changes that you can see on the outside of the body, there are also important changes happening inside the body. The sexual and reproductive systems mature during puberty and prepare human bodies for the potential to reproduce."
3. Write a definition of "hormones" on the front board and have students copy this definition into their notebook: "Hormones are chemical substances produced by glands or organs in the body that travel through the bloodstream to control or regulate other tissues or organs in the body. During puberty, hormones cause the internal and external changes related to growth and sexual maturity. These changes are referred to as secondary sex characteristics."
4. Take out the bag (or other container) labeled "Puberty" and the spoon labeled "Hormones." Explain that you are going to stir up the hormones and see what comes out.
5. Hand out the "Secondary Sex Characteristics: Changes at Puberty" worksheet
6. Ask each student to come up to the front of the room, stir the puberty bag, and pull out a card. Volunteers should each read their card to the class, and then decide whether the change on their card happens to *males only*, *females only*, or *both males and females*. Discuss each change as a class. Continue the activity until all cards have been discussed. If students are not familiar with a word, provide the correct information, including where the word belongs on the worksheet.
7. As the students are stirring up the puberty cards, you should be keeping on the board a master list of the changes that occur during puberty. Students should keep a list of the changes on their worksheet, categorizing each card under one of the headings provided.

### ACTIVITY 2: GROUP SKITS ON CHANGES AT PUBERTY

1. Break students into groups of three to five students, depending on the size of the class.
2. Explain that each group will develop a brief (one- to two-minute ) skit illustrating two or more changes at puberty and how kids their age feel about those changes. Skits should deal with a physical or emotional change taking place in males, females, or both. In the skit, students may react positively or negatively to the changes. Appropriate behavior is expected.
3. Characters in the skits may be all female, all male, or a combination, depending on the nature of the skit. Characters in the skit may be peers, parents or guardians, siblings, counselors, or doctors.

## Suggestions for Index Cards (Changes in Males, Females, or Both)

MALES	FEMALES	BOTH
Broader shoulders	Growth of breasts	Emotional changes
Deeper voice	Wider hips	Increased perspiration
Increased muscle mass	Beginning of ovulation	Acne
Facial hair	Beginning of menstruation	Body odor
Sperm produced	Increased estrogen	Maturation of sex organs
Erections	Increased progesterone	Growth spurt
Ejaculations	Release of eggs (ova)	Hair growth under arms
Nocturnal emissions	Vaginal discharge	Pubic hair
Larger penis	Breast tenderness	Increased moodiness
Increased testosterone		Voice changes
Semen produced		Sexual and romantic feelings

Name: \_\_\_\_\_

## Secondary Sex Characteristics: Changes at Puberty

Males	Females	Both

## LESSON 3: ALPHABET SOUP VOCABULARY GAME

**Level:** Middle school

**Time:** 30–40 minutes

### National Health Education Standard

1. Core Concepts

### National Sexuality Education Standards: Performance Indicators

- Describe the physical, social, cognitive and emotional changes of puberty and adolescence.
- Describe male and female sexual and reproductive systems including body parts and their functions.

### Rationale

The Alphabet Soup vocabulary game is a fun way to review basic terminology about puberty while separating myths from facts. In addition, by using correct terminology to describe male and female reproductive anatomy, students become more comfortable for future lessons pertaining to human sexuality.

This lesson may be used as a diagnostic assessment to find out what students already know about puberty and sexual development. It may also be used as a summative assessment at the end of a unit on puberty to assess what knowledge students have gained during the unit.

### Materials and Preparation

Sack or hat for letters

Four sets of letters of the alphabet (A through Z). These may be found in dollar stores (foam rubber, magnets, cardboard, and so on), but they can also be made by cutting up index cards into squares and placing a letter on each. Put these in the sack or hat.

Front board or poster paper and markers to keep score

Teacher copy of “Suggested Words and Definitions”

### Procedure

1. Explain to the class that the day’s activity is called Alphabet Soup because it is a vocabulary game. However, unlike other vocabulary games students may have played, this one pertains to the changes occurring during puberty as well as the male and female reproductive systems.
2. Split the class into two teams and have each quickly come up with a team name. Write each team’s name on the board (or poster paper), and then flip a coin to determine which team will begin the game.

3. Explain the following instructions for playing the game:
  - a. One person from Team A will reach into the sack (or other container) to pull out a letter. As the game host, you will read a definition of a word related to puberty and sexual development beginning with that letter. The contestant must then come up with the correct vocabulary word that starts with that letter. For example, if the student picks the letter *W*, and the definition "Another name for the uterus" is read aloud, the student needs to answer, "Womb."
  - b. The contestant will have fifteen seconds to answer. She may ask people on her team to help, but only the contestant can give the final answer.
  - c. If the correct answer is provided, the student's team receives one point (which is marked on the board under that team's name).
  - d. If an incorrect answer is provided, members of the other team may confer with each other, and if they believe they know the correct answer, one team member should respond. If that team guesses correctly, the team receives a point.
  - e. A student from the other team will then choose another letter from the bag, and the same procedure is followed.
4. Continue playing the game by alternating teams and keeping score. Because the point of the game is to increase awareness of puberty and sexual development, you should ensure that all answers are correct.
5. Conduct a "class whip" in which students each state a quick fact that they learned by playing the Alphabet Soup vocabulary game.
6. Conclude the class by asking the processing questions.

## Processing

1. What words surprised you from the game?
2. What terms were known by the class? Were the terms related to one gender?
3. How comfortable were you discussing these terms in a coed class?
4. How important is it for teenagers to be able to describe pubertal changes?
5. Why is it important for teenagers to know the proper terminology to describe the male and female reproductive systems?

## Assessment

- Students provide correct terms to match definitions and descriptions pertaining to puberty and reproduction.
- In the class whip, students correctly state one physical, emotional, or social change at puberty and adolescence.

## Suggested Words and Definitions

**Acne**—a common skin condition during puberty in which pores become inflamed, resulting in pimples, blackheads, and whiteheads.

**Adolescence**—the stage of growth between puberty and adulthood.

**Body odor**—smell created in the armpit area. This can be problematic for teenagers if they do not practice proper personal hygiene habits.

**Breasts**—body parts that develop earlier in some girls, and later in others. On giving birth to a baby, the female can feed the baby with milk from these.

**Cervix**—the lower end of the uterus.

**Changes**—what kids experience during puberty, both on the inside and on the outside.

**Decisions**—choices people make that affect their health; as a person gets older, the number of these increases.

**Ejaculation**—the process by which semen comes out of the tip of the penis.

**Erection**—the term used when a penis becomes longer and firmer. This occurs when arteries in the penis expand and fill with blood.

**Estrogen**—in females, a hormone released by the ovaries, controlling several changes during puberty.

**Fertilization**—the term used when an egg and sperm combine.

**Gland**—an organ that releases hormones. An example of this type of organ is the pituitary.

**Gonads**—the scientific name for the ovaries and testes.

**Hips**—these widen in a female during puberty to prepare her body for the possibility of giving birth in the future.

**Hormone**—a chemical substance secreted by an endocrine gland to stimulate growth or regulate the body's activities.

**Hymen**—the thin membrane partially covering the vaginal opening. This opening allows the menstrual fluid to leave the female's body.

**Immune**—what the letter *I* stands for in the disease AIDS. This is the body system that fights germs.

**Kissing**—a behavior that is used in most parts of the world to express affection between two people.

**Labia**—the folds of skin surrounding the vaginal and urethral openings.

**Masturbation**—the action of a person touching his or her own sex organs for sexual pleasure.

**Menstruation**—the term used to explain a female's monthly period.



## Suggested Words and Definitions (continued)

- Nocturnal emission**—an involuntary discharge of semen as a male sleeps; also called a wet dream.
- Oral sex**—a type of sex in which a person's mouth makes contact with another person's genitals. It can spread HIV and other STIs.
- Ovulation**—the monthly release of an egg cell in females.
- Penis**—the organ in males that releases urine or semen.
- Period**—a slang term for menstruation. Although most girls get this between the ages of eleven and fourteen, some girls start as early as age eight or as late as age eighteen.
- Pituitary**—the gland in the brain that controls the growth spurt and other changes during puberty.
- Pubic hair**—hair that grows around the external sex organs in both sexes. This hair growth is one of the earliest signs of going through puberty.
- Reproduction**—the scientific term for producing a baby.
- Secondary sex characteristics**—signs indicating that puberty, or sexual maturity, is occurring.
- Scrotum**—the soft sac of skin containing and protecting the testes.
- Semen**—the mixture of sperm cells and other whitish fluids released during an ejaculation.
- Shoulders**—body parts that become broader and more muscular for males during adolescence.
- Tampon**—an item that is inserted inside the vagina to absorb menstrual fluid. It can be used instead of a menstrual pad.
- Testes**—two glands found in males that start to produce sperm cells during puberty.
- Testosterone**—the hormone responsible for the voice's deepening, muscle development, the growth of pubic hair, and the growth of facial hair.
- Urethra**—the tube removing urine from the body.
- Vagina**—the passageway leading from the uterus to the outside of the body.
- Voice**—something that can become deeper because of an enlargement of the larynx.
- Womb**—another name for the uterus.
- X chromosome**—the chromosome responsible for creating a baby that is a female.
- Years**—the length of time puberty lasts.
- Zygote**—another term for a fertilized egg cell.

## Myth or Fact Statements

1. Females need two ovaries to have a baby.
2. If a male has only one testicle, he can still get a female pregnant.
3. An egg is about the size of a poppy seed.
4. Some females can start getting their menstrual periods as early as the fourth grade.
5. Males can control nocturnal emissions (wet dreams).
6. If she has unprotected sex, it is possible for a female to get pregnant at any time during her menstrual cycle (including when she is having her period).
7. Pre-seminal fluid from a male has enough sperm in it to get a female pregnant.
8. In a male's body, the testicles are always the same size.
9. A male can urinate and ejaculate at the same time.
10. Only males can experience a hernia.
11. Sperm can live for up to five days in a female's reproductive system.
12. Both females and males have a prostate gland.
13. Identical twins occur when two different sperm fertilize one egg.
14. Each fallopian tube is about four inches long and has a diameter as wide as a piece of spaghetti.
15. A healthy male makes one hundred million to three hundred million sperm per day.
16. The uterus is about the size and shape of an upside-down pear.
17. Only males have a urethra.
18. A baby grows in a female's vagina.
19. Only females have fallopian tubes.
20. Most male babies born in the United States are circumcised.
21. The male epididymis stores mature sperm.
22. Sperm and semen are the same thing.
23. Sperm cells have tails to help them move.
24. Egg cells have tails to help them move.
25. If a female has not gotten her first period, she cannot get pregnant.
26. A female urinates and releases the menstrual lining through the same opening in her body.
27. Males are not able to reproduce after they turn seventy years old.
28. Females usually release two eggs per menstrual cycle (each month).
29. The coccyx is the narrow bottom part of the uterus extending into the vagina.
30. There are three openings to the outside from the female pelvis.



## Accessing Reliable Information on the Internet

Accessing information is a basic health skill. Intelligently navigating the Internet can bring you credible health information and access to services. Unfortunately, not all Internet sites are reliable. The following questions can assist you in determining whether a site is a legitimate source of information:

1. Is the site from a nonprofit organization (.org), government agency (.gov), or educational institution (.edu)? These sites tend to be more reliable than sites from commercial organizations (.com).
2. Is the information based on research and scientific evidence? How do you know?
3. Are the author or authors clearly identifiable, with provided credentials and contact information?
4. Some .com sites do have valuable and credible information. How can you ensure that the site is providing correct information?
5. Is the site selling something, rather than simply supplying information?
6. Be suspicious of sites that consist of personal opinions and testimonials. If the site relies mostly on testimonials rather than scientific research, you should not trust these sites to be accurate and legitimate.
7. How up to date is the information on the site? How do you know?