

<i>Health</i>
5.ICR.2.1 Recall that puberty is characterized by the development of secondary sex characteristics and the onset of reproductive capacity.
<i>English Language Arts</i>
CCSS.ELA-Literacy.W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. CCSS.ELA-Literacy.W.5.2.d Use precise language and domain-specific vocabulary to inform about or explain the topic.

Materials Needed:

Appendix 1 – Background Content for Facilitating Bowl and Spoon Activity

Appendix 2 – Strips of paper with reproductive anatomy and function color coded (pink=female, blue=male, yellow=both)

Bowl

Large Spoon

Appendix 3a, b – teacher key of male and female reproductive systems

Appendix 4a, b – copies of male and female reproductive systems

Appendix 5 – copies of Planning for Puberty handout

Focus:

Using Background Content for Facilitating Bowl and Spoon Activity (Appendix 1), explain to students that the bowl represents the human body and the spoon represents hormones as they begin to function during puberty. The word hormone in Greek means “to stir things up”. Prior to class, cut up Appendix 2 into strips (or put words on color coded paper). Walking around the room, stir bowl and have students draw strips one at a time, explaining to the class what occurs during puberty relative to that body part, function, or relationship. During this activity, clarify any misconceptions or mispronunciations. [If students have not had previous lessons in fourth grade on puberty, the teacher will use this activity to cover the material rather than ask students to review previously learned information.]

Statement of Objectives:

By the end of today’s class, you will be able to understand the body changes one undergoes during puberty and that puberty is the start of the ability to reproduce.

Teacher Input:

Say, *Puberty is defined based on two events that are happening to each person over a period of a few years. Secondary sex characteristics develop: pubic hair grows, boys' voices deepen, and girls get breasts and wider hips. Both boys and girls become capable of reproduction. That is, girls begin to release ova (or eggs) that (if fertilized) can develop into a baby, and boys begin to produce sperm that (if deposited into a female) can unite with the ovum to create a baby.*

Provide each student with a copy of the diagrams of the male and female reproductive systems (Appendix 3a and 3b). Using teacher key of male and female diagrams (Appendix 4a and 4b), discuss male and female reproductive systems.

For the female:

Fallopian tube – a tube between the vagina and ovaries in which fertilization takes place (where sperm meets the ovum)

Ovaries – organs that produce female hormones and produce and release ova (or eggs) in the female

Uterus or womb – the organ in which the fetus develops into a baby

Cervix – opening of the uterus; menstrual blood passes through

Vagina – the organ for sexual intercourse, also the birth canal (through which the baby passes during birth)

For the male:

Vas deferens – tube that carries sperm from the testes to the penis

Epididymis – where sperm are stored before they mature and are released

Prostate gland – gland that produces fluid to help sperm move

Seminal vesicles – two glands that produce and secrete most of the seminal fluid

Urethra – tube in the penis that carries sperm and urine (pee) out of the body (not at the same time)

Testicles – glands behind the penis that produce male hormones and sperm (contained in a sac called the scrotum)

Students will complete (Appendix 3a and 3b) to review physical changes that occur during puberty. Additional puberty tips should include:

- Care for body and foot odor
- Skin care
- Wash hair frequently
- It's normal to have crushes
- It's normal to be curious
- Choose friends wisely

Teacher should emphasize that although at puberty, adolescents have the ability to reproduce, it is unhealthy and unwise to consider becoming a parent until adulthood.

Assessment:

Instruct students to complete Planning for Puberty handout (Appendix 5). Tell them they will be graded on how well they inform and explain puberty and create a plan for coping with the changes. They are to use specific terminology that relates to reproductive function. They should include emotional and social changes as well as physical.

Closure:

Puberty can be a confusing time. Remember there are secondary sex characteristics that happen and that the body is preparing for the possibility of reproduction when you are older. It is helpful and healthy to understand the physical changes and why they occur.

Background Content for Facilitating the Bowl and Spoon Activity

Boys:

Voice: deepens because the larynx becomes a larger organ; does not happen over night and therefore boys may be self-conscious about their voices cracking or being high pitched some of the time.

Facial hair: begins as “peach fuzz” then becomes coarser and darker, then mustache and beard

Shoulders: widen, boys get “V” shape

Testicles: become larger and begin to produce sperm (this is a difference between boys and girls, as girls are born with all the eggs they will ever have (this has been disputed), whereas boys do not begin to produce sperm until puberty)

Nocturnal emissions: (used to be called “wet dreams”), body practices for reproduction by releasing semen during sleep, boys need to take care of hygiene (washing up, changing pajamas and bedding)

Penis: becomes larger, may experience spontaneous erections

Girls:

Breasts: beginning of breast development as “breast buds”, may normally occur on one side first, which may cause girl to think she has a tumor or growth, fatty tissue (not muscle) therefore not influenced by exercise.

Hips: widen (in preparation for childbirth), pelvic bones move apart and hips become rounder

Ovulation/menstruation: often the last developments in puberty, ovulation involves the ripening of an ovum (egg) and its release into the Fallopian tube. Ovulation occurs first and then triggers menstruation (about 14 days later). Girls just beginning their cycles are less regular than mature women.

Ovaries: begin to produce female hormones and ova begin to ripen and be released

Both sexes:

Height: going through the second biggest growth spurt (after prenatal development). Growth of bones and muscles not balanced. Explains awkwardness, lack of coordination and increase in accidents.

Sweat glands: hormones increase their activity. Really important to stress personal hygiene. Need daily bathing, use of deodorant, and changing clothes daily.

Oil glands/acne: hormones increase their activity. Many myths about teenage acne have been dispelled. Not associated with eating fatty foods or chocolate. Important to keep face clean and not pick at blemishes.

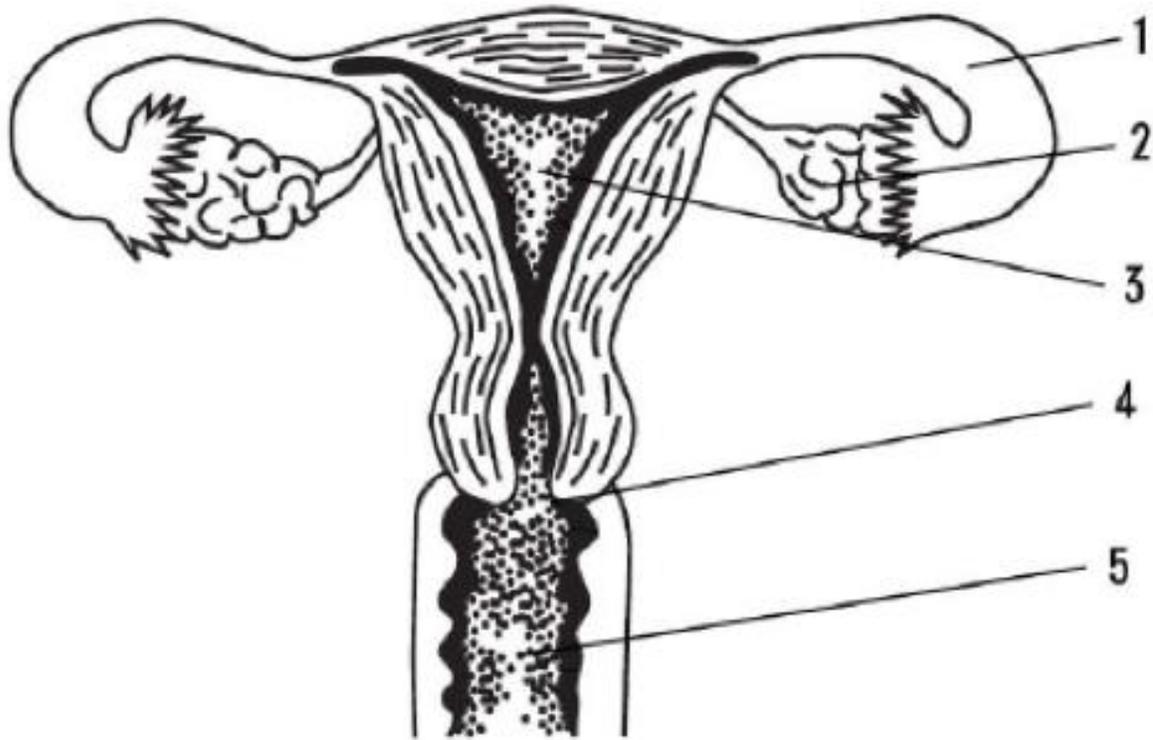
Body hair: occurs under arms, on the groin (pubic area – one of first signs of puberty), for boys on chest and even back.

Items for Bowl and Spoon Activity

GIRLS (PINK)	BOYS (BLUE)	BOTH (YELLOW)
Ovulation/ menstruation	Testicles	Height
Ovaries	Penis	Sweat glands
Breasts	Facial hair	Oil glands/ Acne
Hips	Voice	Body hair
	Shoulders	
	Nocturnal emissions	

Female Reproductive Organs

Word Bank: cervix, ovaries, uterus, Fallopian tubes, vagina

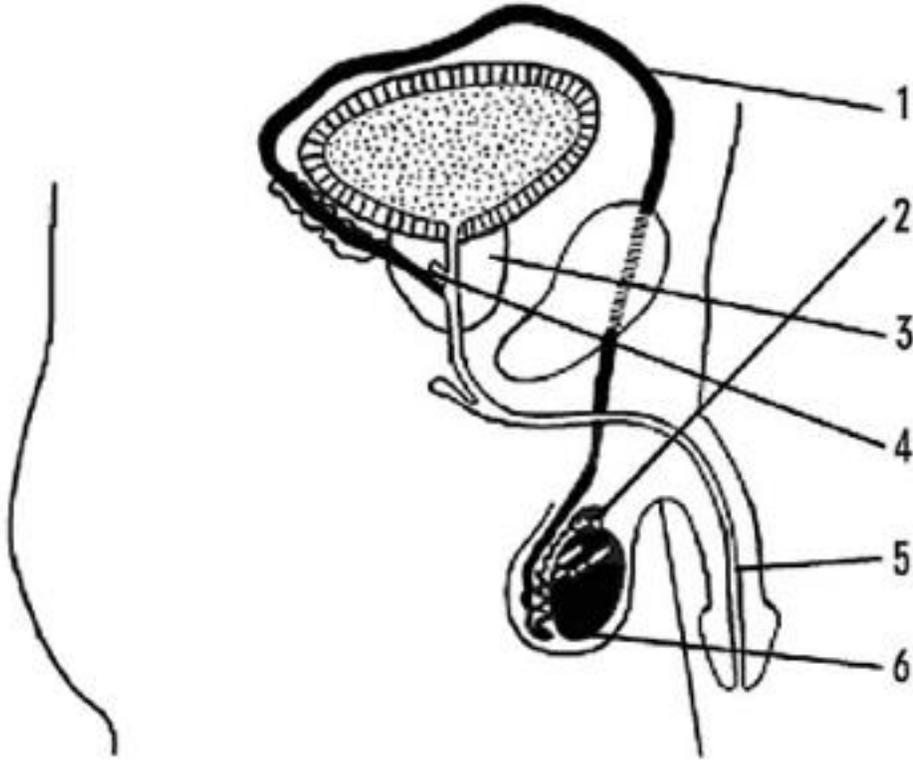


Label each of the structures and provide a brief explanation of what each one does.

- 1.
- 2.
- 3.
- 4.
- 5.

Male Reproductive Organs

Word bank: testicles, urethra, vas deferens, epididymis, prostate gland, seminal vesicles

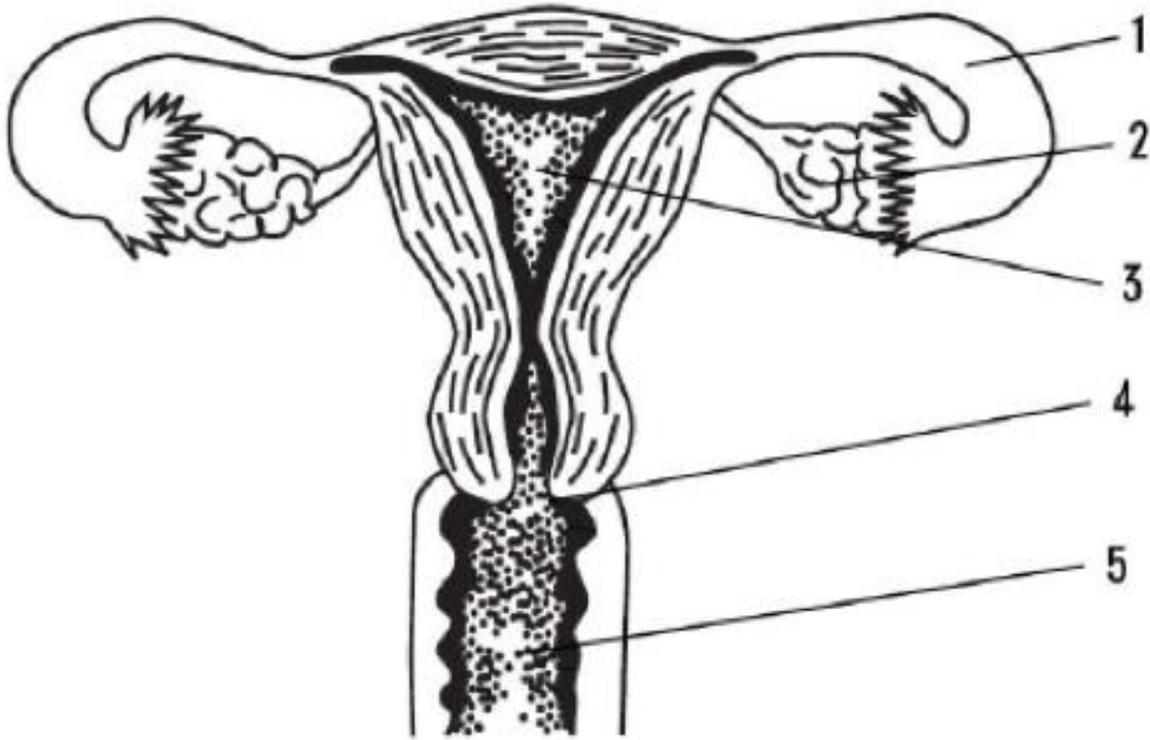


Label each of the structures and provide a brief explanation of what each one does.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

Female Reproductive Organs (MASTER)

Word Bank: cervix, ovaries, uterus, Fallopian tubes, vagina

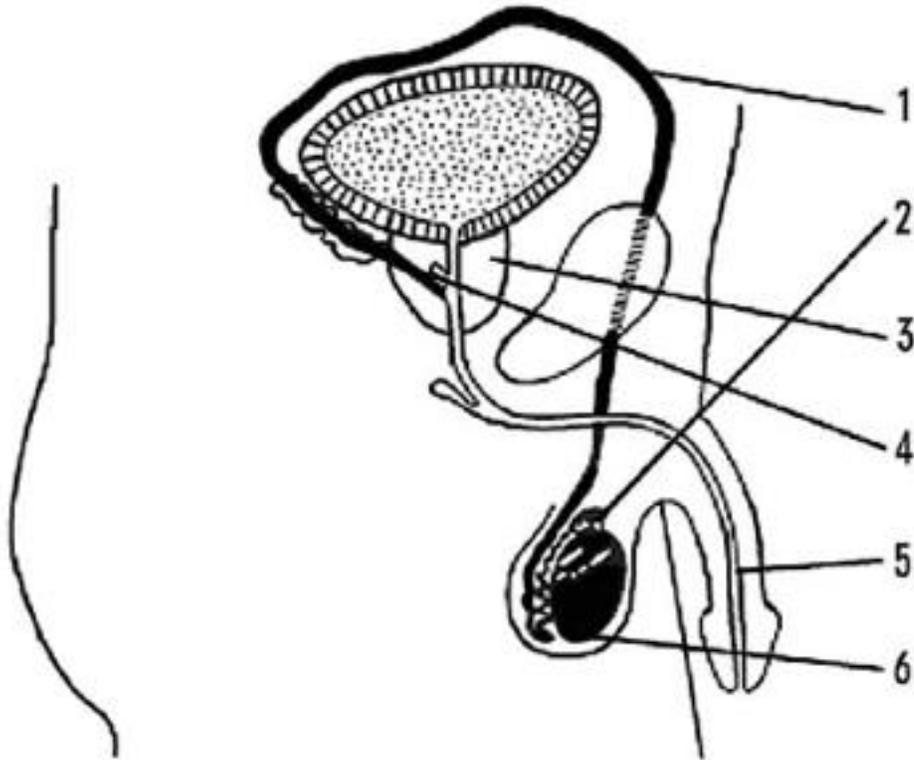


Label each of the structures and provide a brief explanation of what each one does.

1. FALLOPIAN TUBES
2. OVARIES
3. UTERUS
4. CERVIX
5. VAGINA

Male Reproductive Organs (MASTER)

Word bank: testicles, urethra, vas deferens, epididymis, prostate gland, seminal vesicles



Label each of the structures and provide a brief explanation of what each one does.

1. VAS DEFERENS
2. EPIDIDYMIS
3. PROSTATE GLAND
4. SEMINAL VESICLES
5. URETHRA
6. TESTICLES

Planning for Puberty

1. Write a paragraph about changes you have noticed in your body or the bodies of your classmates. [Do not identify anyone by name. Simply write, "Some boys . . . ; or some girls"]
2. Write a paragraph about the challenges of growing up (example: mood swings) and how they make you feel.
3. Write a paragraph about the ways you can handle these changes (Example: getting plenty of rest).
4. Make a list of adults you can go to if you have questions (Example: parents).
5. Make a list of questions you will ask using the correct terminology for body parts and functions.

