

Sub-Task #5 Male Changes at Puberty

Materials

Overhead Projector

VCR and Overhead

Video: "Changing"

Video: "New Improved Me"

Description

Students will become familiar with the correct terminology for the male reproductive anatomy. Students will then be able to describe the process of spermatogenesis.

Expectation Code	Learning Expectation
5p2	Describe physical, emotional and interpersonal changes associated with puberty
5p11	Describe the secondary physical changes at puberty (e.g. growth of body hair, changes in body shape)
5p12	Describe the process of menstruation and spermatogenesis

Assessment Opportunities - Suggestions for Assessing Expectations

Diagnostic Assessment: Personal Communication - Assess knowledge of spermatogenesis through question and answer and in class discussions

Formative Assessment: Performance Task - Assess the Male Reproductive System worksheet (see Appendix K) and Boys at Puberty worksheet (see Appendix M) to determine understanding of the process of spermatogenesis.

Teacher/Learning Strategies

1. Reproductive System of the Male

- Show the third section of "Changing" video or first section of "New Improved Me" which reviews the internal and external reproductive system of the male. (You may also be able to obtain "Changing Me" flip chart from your local health unit).
- If you do not have the video, use Appendices K and L (diagram of the male reproductive system) to name parts and ask the students if they know what each part does (review Teacher Notes).
- The teacher tells students that during puberty that males start to make sperm in the testes. Ask students the following:
 - What is sperm?
 - Where are sperm produced?
 - Why do we need sperm?
 - How many sperm are produced each day?

See Notes to Teacher for further information.

- The teacher will have the students complete Male Reproductive System worksheet (see Appendix Q Worksheet and Appendix R Answer Sheet) and Boys at Puberty sheet (see Appendix M Worksheet and Appendix N Answer Sheet) using the correct terminology discussed earlier in lesson.

Notes to Teacher

- Check for other videos, etc. available from the Public Health unit to assist with this lesson. The “Changing Video” is a free video which is part of the “Changing Program”. These instructional materials are designed to help teach boys and girls in Grades 5 and 6 about growth and development at puberty, personal hygiene habits and positive self-image.
- The penis is made up of spongy tissue that can fill with blood causing it to become hard and erect. (Tell students there is no bone in the penis.) The head, or glans, of the penis has many nerve endings that make it sensitive to the touch. Touching or stroking the penis results in sexual feelings and an erection may occur. An erection occurs when blood flows into the spongy tissues of the penis. It can also occur when a male has to go to the bathroom, or when feeling nervous or anxious about something, or sometimes for no apparent reason. The prepuce or foreskin, covers the glans, and in some boys this covering is removed at birth for health or religious reasons. This is called circumcision.
- Sometime after puberty begins, sperm, the male sex cells, will mature in the epididymis in the testicles. The testicles or testes are the male organs of reproduction and are held in a loose bag of skin called the scrotum, which hangs down behind the penis. The testicles produce male sex cells, called sperm, which help to produce a new human being. The testicles are on the outside of the body because sperm can only be produced at lower than body temperature. Sperm travel from the testicles into the body and are passed out of the body through a tube in the penis called the urethra. Urine also exits through the urethra, but never at the same time as sperm. The sperm is mixed with seminal fluid. Seminal fluid is produced by the prostate gland inside the body near the bladder (the sack that holds urine). Seminal fluid is a thick, white fluid that transports sperm along the urethra and provides an environment in which sperm can survive. The discharge of semen from the penis is called ejaculation. Sometimes boys experience erections and ejaculations during the night when they are asleep. This is called a nocturnal emission, orgasm, or wet dream. Wet dreams are normal and many, though not all, boys will have them, nor will all boys masturbate. A boy knows his testicles are producing sperm if he has a wet dream or when he is masturbating (stroking or rubbing his penis) and ejaculates.

- **Spermatogenesis:**
 - During puberty, males start to make sperm in the testes. Testosterone enables the testicles to start producing mature sperm for the first time.
 - About 400 million new sperm are made every day.
 - A new sperm takes about 4 - 6 weeks to mature in the epididymis. During that time it travels through long coiled tubes in the testicles.
 - When sperm mature, they travel up through the sperm duct (vas deferens). In the vas deferens, sperm combines with other fluid to make seminal fluid, which is also called semen.
 - The sperm are stored in special storage areas until they are ejaculated. When the storage area become too full, semen is expelled by the body through the penis. This usually happens when the body is at rest. It is called a nocturnal emission or wet dream. A normal ejaculation contains 150-500 million sperm.

Ontario Catholic School Graduate Expectations

CGE(6) The Graduate is expected to be a caring family member who attends to family, school, parish, and the wider community

CGE6(b) Recognizes human intimacy and sexuality as God's gifts, to be used as the Creator intended

Fully Alive

Theme 3, Created Sexual: Male and Female MUST be the teaching resource for the expectations related to the physical changes of puberty and the processes of menstruation and spermatogenesis.

Teachers may find the Resource Material for Theme 3 which is included at the end of all the teacher resource material (TM pp. 98-116) useful supplementary information.

Theme 3: Created Sexual: Male and Female, Topic 2, Human Fertility

- deepen their understanding of human fertility
- be encouraged to appreciate the power and responsibility of human fertility

TM pp.57-61, SB pp.53-59

Theme 3: Created Sexual: Male and Female, Topic 3, Puberty

- Explore some of the emotional and social changes of puberty
- identify the physical changes of puberty for girls and boys

TM pp.62-67 SB pp.60-68

Appendices

Unit 4 Appendix K	Male Reproductive System - Overhead Transparency/Worksheet
Unit 4 Appendix L	The Male Anatomy/Reproductive System - Definitions Handout
Unit 4 Appendix M	Boys at Puberty - Worksheet
Unit 4 Appendix N	Boys at Puberty - Answer Sheet
Unit 4 Appendix Q	The Female Anatomy/Reproductive System - Definitions Handout
Unit 4 Appendix R	Your Menstrual Cycle - Handout