

COURSE: Health	GRADE(S): 9 th Grade
UNIT: Male and Female Reproductive Systems	TIMEFRAME: 7 Lessons

NATIONAL STANDARDS:	
STANDARD 1:	Students will comprehend concepts related to health promotion and disease prevention to enhance health.
STANDARD 2:	Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
STANDARD 3:	Students will demonstrate the ability to access valid information and products and services to enhance health.
STANDARD 4:	Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
STANDARD 7:	Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

STATE STANDARDS:	
10.1. Concepts of Health	
	10.1.9.D. Analyze prevention and intervention strategies in relation to adolescent and adult drug use.
<i>Reading Assessment Anchors:</i>	
R11.A.2 Understand nonfiction appropriate to grade level	
	R11.A.2.1 Identify and apply the meaning of vocabulary in nonfiction.
	R11.A.2.3 Make inferences, draw conclusions, and make generalizations based on text.
	R11.A.2.4 Identify and explain main ideas and relevant details.
R11.B.3 Interpret, describe, and analyze concepts and organization of non-fictional text	
	R11. B.3.1 Interpret, describe, and analyze the characteristics and uses of facts and opinions in non-fictional text.

UNIT OBJECTIVES:	CONTENT:
The students will analyze the role and pressures adolescence face.	<ul style="list-style-type: none"> I. Review of Adolescence <ul style="list-style-type: none"> - Emotional, Mental and Social Growth - Adolescent Pressures <ul style="list-style-type: none"> o Peer o Parental o Societal o Self - Dealing with Adolescence <ul style="list-style-type: none"> o Values Process o Decision Making Skills o Self Image - Physical Growth - Secondary Sexual Characteristics <ul style="list-style-type: none"> o Voice deepens o Muscular development o Body hair o Genitalia maturation o Sexual desire

Label and differentiate between the male and female organs.

Describe the role of the endocrine system.

Summarize the male organs and their functions.

- o Stereotyping
- Endocrine System
 - o The endocrine system is made up of glands that produce and secrete hormones. These hormones regulate the body's growth, metabolism (the physical and chemical processes of the body), and sexual development and function. The hormones are released into the bloodstream and may affect one or several organs throughout the body.
 - o *Hormones* - are chemical messengers created by the body. They transfer information from one set of cells to another to coordinate the functions of different parts of the body.
 - o The major glands of the endocrine system are the hypothalamus, pituitary, thyroid, parathyroids, adrenals, pineal body, and the reproductive organs (ovaries and testes). The pancreas is also a part of this system; it has a role in hormone production as well as in digestion.
 - o The endocrine system is regulated by feedback in much the same way that a thermostat regulates the temperature in a room. For the hormones that are regulated by the pituitary gland, a signal is sent from the hypothalamus to the pituitary gland in the form of a "releasing hormone," which stimulates the pituitary to secrete a "stimulating hormone" into the circulation. The stimulating hormone then signals the target gland to secrete its hormone. As the level of this hormone rises in the circulation, the hypothalamus and the pituitary gland shut down secretion of the releasing hormone and the stimulating hormone, which in turn slows the secretion by the target gland. This system results in stable blood concentrations of the hormones that are regulated by the pituitary gland.

II. Anatomy & Function

- Hormonal Control
- Male Reproductive System
 - o Organs and their functions
 - Penis: Used for urination and reproduction.
 - Testes: Produces sperm and testosterone.
 - Urethra: Tube for urine and semen.
 - Vas Deferens: 2 sperm ducts

Generate a list of male health concerns and compile information about each one.

- leading from the epididymis.
- Scrotum: Sac that holds the testes and regulates temperature.
- Seminal Vesicles: Glands that feed the sperm and supply an alkaline fluid.
- Prostate Gland: Secretes an alkaline fluid to nourish and protect sperm.
- Bulbourethral Gland (Cowper's glands): During sexual arousal, prior to ejaculation, this gland releases an alkaline fluid to neutralize the acid in the male's urethra (may contain sperm)
- Epididymis: Sperm reach full maturity here.
- Functions
 - Testes
 - Sperm
 - Hormone – testosterone
 - Journey of ejaculation
 - Erection – upon arousal, blood rushes into the spongy tissue of the penis.
 - Masturbation – self stimulation
 - Nocturnal Emission – (wet dreams) release of semen during sleep.
- Concerns
 - Testicular Cancer: Most common cancer in men ages 15 to 34 years old. Some signs are: a slight enlargement of one of the testes; a small, hard lump; a dull ache in the lower abdomen or groin.
 - Self-exam: Do each month after a warm bath.
 - Roll each testicle gently between the thumb and fingers of both hands, checking for hard lumps or nodules.
 - Inguinal hernia: Intestine protrudes through a weak area in the inguinal canal.
 - Prostate cancer: Over 80% are diagnosed in men over the age of 65; symptoms may include: frequent urination, difficulty urinating, pain when urinating, blood in the urine, or pelvic pain.
 - Andropause: (Male menopause) Between the ages 40 and 55 testosterone levels drop and may cause changes in moods, fatigue, a loss of energy, sex drive and physical agility;

Summarize the female organs and their functions.

treatment may include a testosterone patch.

- o Impotence: Inability of male to achieve an erection.
- o Circumcision- removal of the foreskin

- Female System

- o Organs and functions
 - Ovaries: 2 organs containing eggs
 - Fallopian Tubes: 2 tubes which transport the eggs to the uterus.
 - Uterus: Where embryo is housed and nourished (womb).
 - Vagina: Used for reproduction, menstrual flow, and birth.
 - Vulva: External sex organs.
 - Clitoris: Source of sexual stimulation due to nerve-endings.
 - Bartholin's Glands: One located on each side of the vagina; releases a lubricating fluid during sexual arousal.
 - Fimbriae: Finger-like structures located on end of fallopian tubes.
 - Hymen: Thin, pink membrane covering the vagina in some virginal girls.
- o Functions
 - Menstrual cycle: Approximately 28 days.
 - Menstruation: Monthly shedding of uterine lining (endometrium); lasts 3 to 7 days; the first day of blood flow is considered day one of the cycle.
 - Ovulation: Monthly release of an egg or ova; usually occurs in the middle of the cycle.
 - Premenstrual syndrome: Refers to a variety of symptoms that some females experience before their menstrual periods.
 - Emotional effects:
 - irritability
 - moodiness
 - heightened sensitivity
 - depression
 - Physical effects:
 - headaches
 - cramps bloating
 - weight gain
 - fatigue
 - Menopause: Ceasing of menstruation; average age is 50.
 - Masturbation: Stimulation of one's own genitals.

Generate a list of female health concerns and compile information about each one.

- *Feminine Cleansing*
 - FDS- feminine deodorant spray
 - Wipes: personal disposable cloth
- Concerns
- Breast cancer: Most common form of cancer in females; one out of every 7 will get breast cancer; two thirds occur in women over 50.
 - Symptoms include:
 - change in breast or nipple appearance
 - lump or swelling in the breast
 - lump under the armpit
 - Mammogram: (breast x-ray) is advised beginning at age 40. Breast self-exam: Perform one week after menstruation: palpate breasts for lumps; examine breasts in mirror, determining physical changes.
- Cervical cancer: No early symptoms; risk factors include: having intercourse at an early age, having multiple partners, having warts on the cervix.
 - Pap test: A test used by doctors to detect abnormal cells. A smear is obtained from the cervix.
- Yeast infection: Caused by a fungus; symptoms include thick, white, odorous discharge and genital itching.
- Toxic Shock Syndrome (TSS): A rare disease caused by a pathogen called staphylococcus aureus. May produce a toxin that affects the immune system and the liver.
 - Symptoms include:
 - high fever
 - vomiting
 - diarrhea
 - low blood pressure
 - dizziness
 - fainting
 - rash

Among women, (also occur in men and children), most cases are due to use of super-absorbent tampons.

- ◇ Pelvic exam: American Cancer Society recommends yearly exam from time of first sexual experience or age 18, whichever

<p>Sequence the fertilization process</p>	<p>occurs first.</p> <p>III. Fertilization Process</p> <ul style="list-style-type: none"> - <i>Ovulation</i> is the release of one mature ovum each month usually about the fourteenth day. - The ovum enters the fallopian tube where it is usually fertilized in the upper third. - During ejaculation, millions of sperm are released into the female vagina. - Sperm move through the vagina and into the uterus and fallopian tubes. - Many sperm surround an ovum, but only one penetrates. - The union takes place in a fraction of a second, the process can last 24 hours. - <i>Conception</i> is the moment of fertilization. - A <i>zygote</i> is the resulting cell that forms. - <i>Infertile</i> means incapable of producing offspring.
<p>ACTIVITIES:</p> <p>Class will compile a list of adolescent changes.(Analyzing Internal/External Influences)</p> <p>Graffiti wall strategy to arrive at feelings and physical changes during adolescence. (Analyzing Internal/External Influences)</p> <p>Overhead transparencies of the male and female reproductive systems.</p> <p>Male and Female packets. Worksheets, vocabulary lists and diagrams are included in these packets. The teacher will provide materials for teams to complete the packets. (PMSD Materials book.)</p> <p>Access the website www.teenwire.com to write definitions on male & female anatomy.</p> <p>Flash cards - students use 5"x8" index cards, printing an anatomical term on one side and the definition/function on the other side. When completed, they use the cards to review for the test.</p> <p>"Female Sorry"- board game reviewing female anatomy.</p> <p>Jeopardy game – played as a class to review male and female reproductive systems.</p> <p>"The Story of Fertilization" worksheet</p>	<p>ASSESSMENTS:</p> <p>Students will label the parts of the male and female reproductive systems on a pictorial diagram.</p> <p>Students will score a 70% on a written test on the male and female reproductive system.</p> <p>Students will complete "The Story of Fertilization" worksheet sequencing the fertilization process.</p> <p>Students will complete the Male and Female packets, defining and labeling diagrams and discussing health concerns.</p> <p>REMEDIATION:</p> <ul style="list-style-type: none"> ✧ Revised worksheets & tests ✧ Peer helpers ✧ Extra time given as needed ✧ Work with case manager as needed <p>ENRICHMENT:</p> <p>Students create their own story of fertilization.</p> <p>Students create a review game for the male or female unit.</p> <p>Research differences between Male and Female health concerns and create a bar graph comparing and contrasting these differences.</p> <p><u>Scenario:</u> Your friend tells you that his older brother recently noticed a lump next to one of his</p>

<p>(PMSD Materials book)</p> <p><i>Teacher directed differentiated instructional projects and activities are ongoing and based on student need.</i></p> <p>RESOURCES:</p> <p><i>Education for Sexuality and HIV/AIDS, Meeks, Heit Publishing Company, Inc. 1993</i></p> <p><i>Education in Sexuality, Glencoe 1999</i></p> <p><i>Essentials of Health and Wellness, Delmar Learning division of Thomson Learning (2005)</i></p> <p><i>Health and Wellness, Meeks Heit (2005)</i></p> <p>ABC NEWS INTERACTIVE Video disc: <i>Teenage Sexuality 1990, Chapters 4 & 5</i></p> <p>PMSD Materials book</p> <p><i>Health and Wellness, Meeks Heit, McGraw-Hill Companies, Inc., New York 2005</i></p> <p><i>Teen Health Course 2, Merki, Mary Bronson, Glencoe McGraw-Hill, New York, NY 1999</i></p> <p><i>Health: Making Life Choices, Webb, Frances-Sizer, Whitney, Eleanor-Noss and DeBruyne, Linda-Kelly, Albany, NY 2000</i></p> <p><u>WEBSITES:</u></p> <p><i>Image of male and female endocrine system (2001), Endocrine System</i> Retrieved on June 22, 2006 from: http://www.emc.maricopa.edu/faculty/farabee/BIOBK/BioBookENDOCR.html</p> <p><i>The Endocrine System (2006), The Hormone Foundation, Endo 101</i> Retrieved on June 22, 2006 from: http://www.hormone.org/endo101/</p>	<p>testicles. It's not painful, so he's doing nothing about it. Write a letter to your friend why you think it is important for his brother to have a medical checkup. Use decision making model. Student will contact an endocrinologist and research information on diseases (that affect glands and hormone levels), treatments and referrals.</p>
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