

# SEXUAL DEVELOPMENT

## Lesson 1

7  
GRADE

### LEARNER OUTCOME<sup>1</sup> W-7.3:

Examine the human reproductive process, and recognize misunderstandings associated with sexual development.



#### MATERIALS:

1. Students will need colored pencils or markers
2. HANDOUT: The Male Reproductive System: How Does it Work
3. HANDOUT: Male Reproductive System
4. ANSWER KEY: Male Reproductive System
5. OVERHEAD: Male Reproductive System
6. HANDOUT: The Female Reproductive System: How Does it Work
7. HANDOUT: Female Reproductive System
8. ANSWER KEY: Female Reproductive System (make into an overhead)
9. CARDS: Reproduction
10. HANDOUT: "When I Was Your Age..."
11. OVERHEADS: Menstrual Cycle
12. Sperm Production
13. Conception
14. Implantation



#### INTRODUCTION:

Students need to be able to identify the basic components of the human reproductive system and to describe how they function in order to discuss human sexuality. This lesson provides them with an overview of human sexual anatomy and physiology, menstruation, sperm production, conception and fertilization.



#### APPROACHES/STRATEGIES:

#### NOTES:

##### A. Ground Rules

Ensure ground rules are established before beginning this lesson. For classes that have already established ground rules, quickly reviewing them can promote a successful lesson.

(5 15 min)

## B. Male and Female Reproductive System Diagrams

(20 min)

*Students identify the basic parts of the human reproductive system and describe how they function.*

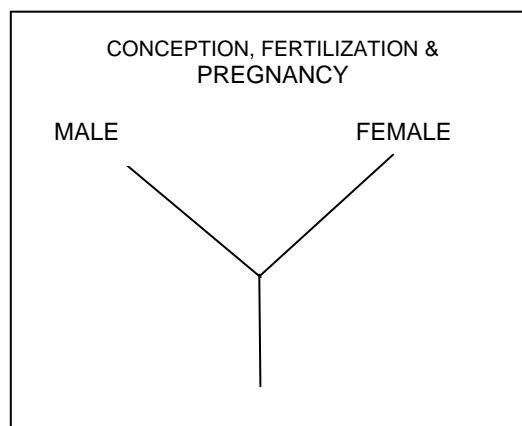
1. Distribute the handout  
Male Reproductive System: How Does it Work, and the handout  
Male Reproductive System
2. Ask students to label and colour the diagram according to the instructions. You may choose to do this activity together with the students using an overhead of the handout and coloured markers while student volunteers read from the handout  
Male Reproductive System: How Does it Work?
3. Ask students to correct their diagram's using the overhead of the  
Male Reproductive System answer key.
4. Repeat the same process using the  
Female Reproductive System handout  
Female Reproductive System: How Does it Work?,  
Female Reproductive System Overhead, and  
Female Reproductive System answer key.

## C. Reproduction Chain

(20 - 40 min)

*Students demonstrate a basic understanding of the male and female reproductive physiology. This is a review of grade 5 Human Sexuality.*

1. Draw a "Y" shaped continuum on floor using tape or chalk (ensure the line can be removed once the activity is complete). Label one part of the top of the "Y" "MALE", the other "FEMALE", and the bottom "CONCEPTION, FERTILIZATION & PREGNANCY" as in the example below.



2. Using the Reproduction cards, give one card per student until all cards are distributed.
3. Have students arrange themselves in the proper order along the “Y” continuum. Ask the students to sit down along the lines once they feel that they are in the correct order.
4. Go through the cards together, and make corrections according to this answer key and overheads. Menstrual Cycle, Sperm Production, Conception & Implantation.

**“FEMALE” axis  
(Menstruation)**

1. Lining of uterus is shed (day 1 of menstrual flow)
2. Lining of uterus thickens with blood
3. Ovulation occurs (egg released from ovary)
4. Egg travels through fallopian tube
5. Egg enters the uterus
6. Egg dissolves if unfertilized
7. Lining of uterus is shed (day 1 of menstrual flow)

**“MALE” axis (Sperm  
Production)**

1. Sperm made in testicles
2. Sperm travel up vas deferens
3. Sperm mix with seminal fluid to make semen
4. Sperm leave the penis (ejaculation)

**“FERTILIZATION &  
CONCEPTION” Axis**

1. Sperm enters vagina.
2. Sperm travels up the vaginal canal.
3. Sperm meets egg in the fallopian tube (fertilization).
4. Fertilized egg travels down the fallopian tube into the uterus.
5. Fertilized egg attaches itself to the lining of the uterus.
6. Fertilized egg uses lining of the uterus for nourishment.
7. Fertilized egg takes nine months to grow completely into a full-term baby.

5. Debrief this activity using the following questions:



Teachers may consider color coding the lines of the “Y” and the cards into three sets: Male, Female, and Conception & Fertilization. This will help students place themselves. For example, the “BOY” axis could be purple, and the cards outlining sperm production could be printed on purple paper.

### **What else do you know about menstruation?**

- It can begin as early as 8 and as late as 16.
- Usually one egg is released each menstrual cycle. If more than one egg is released, and if they are fertilized, it means a woman may have a multiple pregnancy (twins, etc.). If twins are a result of two eggs being fertilized, they are called fraternal twins. Identical twins happen when a fertilized egg splits into two before cells begin dividing.
- An egg can live 12-24 hours from the time of ovulation.
- Girls need to be aware of good hygiene (using pads, etc.) to ensure healthy practices during menstruation.
- Cramps can be a part of menstruation, and can be alleviated using wellness methods like exercise or a hot water bottle. For severe cramps, your doctor may give medication.

### **What else do you know about sperm production?**

- Sperm cells mature at about 15 – 16 years of age.
- Sperm production and ejaculation first happens around ages 12-14.
- “Wet dreams” are ejaculations that occur while sleeping. It is normal to experience these, or not to experience these.
- As many as two million sperm can be released during each ejaculation.
- Sperm can live inside a female’s body 3 to 7 days from the time of ejaculation.

### **Will a pregnancy occur every time sexual intercourse occurs?**

- No. Pregnancy only happens if a sperm fertilizes an egg and if the fertilized egg implants in the uterine wall.
- This can happen if intercourse takes place when a female is ovulating.
- Women are most likely to become pregnant if intercourse happens around the middle of the menstrual cycle. The length of the menstrual cycle is different for each woman, so it is difficult to predict.

### **What do menstruation and sperm maturation make possible?**

- Menstruation and sperm maturation are indications that a person can produce a baby.
- It is important to remember that ovulation occurs before bleeding, therefore a girl can get pregnant before her first period.



Students may have different views concerning nocturnal ejaculation. It is important to be sensitive to these views, but to reassure students that “wet dreams” are a normal occurrence during puberty.

Keep in mind that students with developmental disabilities may have very different interpretations of the menstrual cycle, menstrual bleeding, ejaculation, etc.. This may be very scary or very funny to them and it is important for the teacher to anticipate different reactions. Keep explanations concrete and use simple visuals where possible.

**Although the body is capable of producing a baby once menstruation and sperm maturation occur, why would most people wait until they are much older to have a baby?**

- Discuss issues surrounding the need to be emotionally, educationally or financially ready to parent.
- There are health problems for the baby and the mother that are associated with an early pregnancy such as low birth weigh babies.



Diversity Note: Students considered high risk or with developmental disabilities may benefit from more instruction about fetal development and parenting. For example<sup>2</sup>:

- Have each student evaluate whether or not he/she is ready (has the skills and desire) for parenting. Recognize and acknowledge those goals that they would like to achieve before parenting.
- List with students persons whom they know and respect who do not have children.
- Create a realistic budget for a couple with a child. Have students compare this budget to their current income.
- Discuss other factors which might increase expenses even further, such as an extended illness.
- Go to a local department store or use advertisements and price a pre-made list of essential items one would need for a baby.

**D. “When I Was Your Age...”**

*Students begin to build a support network to help them cope with puberty.*

1. Distribute the handout, “When I Was Your Age...” for students to complete as a homework assignment.
2. Explain that students can complete this interview with a parent or guardian.
3. Allow students to work in partners or small groups to brainstorm a list of questions they would like to ask a trusted adult regarding the adolescent experience, and choose the three best questions to use as interview questions. If time permits, groups could share their chosen questions with the rest of the class.
4. Dedicate time to debrief this activity during the next lesson.

**(5 min today, 30 min homework, 5 min next class)**



In the Calgary region (2003) Parent Health Survey, 96% of parents with children aged 10-17 have talked to their children about relationships and sexuality.<sup>3</sup> Although young adolescents challenge their parents’ ideas, they want to hear their parents’ opinions and values. Many personal values are learned and reinforced at home. Invite students to discuss this topic with their family and encourage open dialogue.



## QUESTION BOX:

(10 min)

Introduce the question box. You could have students fill out questions every lesson, or have students begin to think about questions that they might ask next lesson.



## TAKE IT HOME:

Students complete the handout “When I Was Your Age...”



Keep in mind that all students do not live in a “traditional” family nor do they have equal opportunities for open discussion within their “family.” Although it is best for students to complete this assignment with a supportive parent or guardian, it may not be possible. Be sensitive to the needs of your students.



## SELF REFLECTION:

During the lesson, were:

- Ground rules being followed?
- Good practices established regarding group work and discussion?

What will you change for future classes with this group?

What will you change for future use of this lesson?



## STUDENT ASSESSMENT:

During the lesson, did students:

- Knowledge:**
- Identify the basic parts of the human reproductive system?
  - Describe the process of sperm production?
  - Describe the process of menstruation?
  - Describe how pregnancy can occur?
- Skills:**
- Participate in class discussion and exemplify listening and appropriate speaking skills?
- Attitudes:**
- Begin to articulate that menstruation and sperm production are signs that a person is capable of reproduction?
  - Accept that menstruation and sperm production are positive, healthy aspects of puberty?

<sup>1</sup>Alberta Learning. (2002). Kindergarten to Grade 9 Health and Life Skill : Guide to implementation. Retrieved July 4, 2007, from [http://www.education.gov.ab.ca/K\\_12/curriculum/bysubject/healthpls/healthgi.asp](http://www.education.gov.ab.ca/K_12/curriculum/bysubject/healthpls/healthgi.asp)

<sup>2</sup>Champagne, Walker & Hirsch. (1993) Circles: Intimacy and Relationships. James Stanfield Publishing. Santa Barbara, CA. Calgary Health Region. (2003). Parent health survey. Retrieved July 2007 from [http://www.calgaryhealthregion.ca/hocr/2003\\_Parent\\_Survey/Teen/sexual\\_behavior.htm](http://www.calgaryhealthregion.ca/hocr/2003_Parent_Survey/Teen/sexual_behavior.htm)