

Sub-Task #4 Secondary Physical Changes at Puberty

Materials

Overhead Projector

Description

Students will establish Ground Rules for the next session of puberty lessons. They will define puberty, know why and when it occurs and examine the secondary changes for boys and girls. The students will reflect on the changes they have experienced since early childhood.

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 secondary physical changes at puberty through question and answer, and in class discussions.

Formative Assessment: Performance Task - Assess worksheet "Me Then - Me Now" to determine student recognition of how puberty has impacted his/her own life (see Appendix J).

Teaching/Learning Strategies

1. Ground Rules for Puberty

- **Introduction:** Establish the Ground Rules for Puberty for Classes using the overhead (see Appendix G).

2. Defining Puberty

- **Discuss "What is Puberty?"** List ideas on board or chart paper. Refer to Notes to the Teacher for additional information.
- **Ask "Why does puberty occur?"** Students touch the base of their scalp at the back of their head. This is the pituitary gland. Explain that the pituitary gland at the base of the brain sends out chemical messengers in the blood stream. These messengers are called hormones, and they make reproduction possible. Hormones also cause the changes that make children's bodies grow into adult bodies.

3. Age Ranges for Puberty

- Establish age ranges for these changes to occur, and that it's normal for each person to develop at their own rate. Changes start in girls between ages 8 to 14 and in boys between 10 to 15. For some boys and girls, these changes will begin earlier and for some, the changes will start later.
- Discuss what the actual changes are, and when these changes take place.
- Using the overheads, "Changes at Puberty for Boys" and "Changes at Puberty for Girls" (see Appendices H and I) and the Teacher Notes.

4. Homework Assignment

- Assign, "Me Then-Me Now" for homework (see Appendix J). Students will recognize how their interests and physical size have changed. "Me Then" should refer to Kindergarten/Grade 1 age for easy comparison.

Notes to Teacher

- You may wish to separate the boys from the girls when discussing secondary changes for girls and boys during puberty. You may wish to discuss male changes before female changes.
- **What Is Puberty?**
 - Puberty is the period of time when the bodies of males and females develop and become fertile. It begins when the pituitary gland releases hormones that stimulate the testicles and the ovaries to produce their own hormones. The ovaries produce estrogen and progesterone and the testicles produce testosterone.
 - These hormones make reproduction possible and produce secondary sexual characteristics.

Stage	Boys	Girls
One Boys: Age 9 - 12 Girls: Age 8 - 11	<ul style="list-style-type: none"> • hormone levels rise • testicles maturing 	<ul style="list-style-type: none"> • hormone levels rise • ovaries enlarging
Two Boys: Age 9 - 15 Girls: Age 8 - 14	<ul style="list-style-type: none"> • height increases • body shape begins to mature • testicles and scrotum enlarge • first signs of pubic hair 	<ul style="list-style-type: none"> • first signs of breast development • height and weight begin to increase • hips broaden • first signs of pubic hair
Three Boys: Age 11- 16 Girls: Age 9 - 15	<ul style="list-style-type: none"> • testicles and scrotum continue to grow • penis begins to grow in length • pubic hair thickens and spreads • height and weight increase • shoulders broaden • breast tissue changes • larynx enlarges, voice deepens • first signs of facial hair 	<ul style="list-style-type: none"> • breasts continue to grow • pubic hair coarsens and darkens • mucus secretions from cervix • menstruation may begin

Notes to Teacher *continued*

Stage	Boys	Girls
Four Boys: Age 11- 17 Girls: Age 10 - 16	<ul style="list-style-type: none"> • penis increases in width and length • testicles and scrotum continue to enlarge • may experience first nocturnal emission • voice deepens • skin becomes oilier • underarm and facial hair appears 	<ul style="list-style-type: none"> • underarm hair develops • skin becomes oilier • breasts continue to develop • menstruation very likely begins
Five Boys: Age 14 -18 Girls: Age 12 - 19	<ul style="list-style-type: none"> • development of genitals and pubic hair complete • growth spurt slows down • body shape is that of a mature male 	<ul style="list-style-type: none"> • breast development complete • full adult height has likely been reached • body shape is that of a mature female

- There are also emotional and social changes associated with puberty; however, these are less predictable than the physical changes.
- Fluctuating hormone levels may cause moodiness, anxiety, embarrassment and irritability.
- Relationships with parents may be less harmonious as adolescents seek independence and test their limits.
- Peer group and friends are very important. Being left out, losing a friend, feelings of not fitting in, can generate extreme emotional responses.
- The Changing Me materials such as flip charts, overheads, and felt Boy and Girl characters may be available from local health units. Check for availability.
- There are wide ranges in age of development and in the characteristics of the secondary physical changes. Communicate that everyone has their own unique pattern of growth and that variation in the patterns from one child to the next is perfectly normal.

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-given 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.57-31, 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

4

Appendices

Unit 4 Appendix G	Ground Rules for Puberty Classes - Overhead Transparency
Unit 4 Appendix H	Changes at Puberty for Boys - Overhead Transparency
Unit 4 Appendix I	Changes at Puberty for Girls - Overhead Transparency
Unit 4 Appendix J	Me Then - Me Now - Worksheet