

Human Growth and Development

Girls Only – 5th Grade

Lesson One Puberty and Menstruation

Materials needed: computer, projector, index cards, pencils, slide presentation: girls 5th Grade, Media: *Just Around the Corner*, sample sanitary pads and tampons, home connection letter

Essential Unit Questions: What are the physical changes that occur during puberty? What is menstruation? What is reproduction?

Standard of Learning: 5.1 The student will define the structure and function of the endocrine system. 5.4 and 4.2 The student will recognize the relationship between the physical changes that occur during puberty and the developing capacity for reproduction. 5.7 The student will describe the effects of personal hygiene on one's self-concept.

The following lesson is intended for GIRLS only. If you are teaching a section of boys, you will find a separate gender-specific lesson within this unit.

Note to the Teacher: "Say to" statements included in this unit (in bold) are intended to guide the teacher by providing suggested wording for the key points in the lesson. It is not intended that the teacher will read these statements. They are provided to give guidance and highlight key points.

Lesson One: Puberty and Menstruation

SAY TO STUDENT:

Today is the beginning of a two-day unit about Human Growth and Development. The unit addresses the sexual and emotional development of young people from childhood through adolescence into adulthood. It describes how the bodies of girls and boys mature and change during a period in life called puberty. We'll also talk about the female reproductive system and reproduction, the process by which new life is made.

SAY TO STUDENTS:

Remember, in our school we have younger students who may not be ready for this information yet. For that reason, if you wish to discuss the things we will be learning, it is important to ask your questions during class or wait to discuss these topics with an adult member of your family instead of discussing them in the halls, on the playground, or on the bus where younger students may overhear you. Also, some families choose not to have their children learn about these topics at school; they prefer to teach their children about them at home. That is why they have chosen not to have their child participate in these lessons. That's another reason to discuss these topics only here in class or at home. It's important to respect these families' choices.

Establishing Classroom Guidelines

Teacher Note: Teachers may want to make an anchor chart with guidelines.

SAY TO STUDENTS:

Let's talk about some guidelines we can follow in these lessons to make sure that everyone feels comfortable asking questions and getting the information they need. What are some rules we should follow to make sure we treat the information and one another with respect? Teachers can make an Anchor Chart to use for the week.

- Treat everyone's questions with respect.
- Raise your hand and wait to be called on if you have a question.
- Don't ask personal questions of a classmate or the teacher.
- Don't refer to specific people in your questions.
- Discuss the lesson and any questions you may have with an adult member of your family, not other students. Remember that these lessons are designed for 5th grades students. If you discuss them on the playground or the bus, younger students who are not yet ready for this information may hear you.

Asking Questions

Distribute index cards and **SAY TO STUDENTS:**

There will probably be many questions during this lesson, and sometimes you may prefer to ask your question in writing rather than out loud. I am passing out index cards that you can write any question you may have. You do not need to put your name on the card. Later in the lesson, I will collect all of the cards. If you prefer to ask your questions aloud, or if you have no questions, then you can write down something you learned in class.

I will answer many of your questions in class. However, there may be questions about things we will not be covering in this unit or that people have different beliefs about. I will suggest that you talk those questions over with an adult member of your family. If I suggest you seek answers from an adult family member, that is because I want you to understand and respect your family's feelings and beliefs about human growth and development. Your family should play an important role in discussing questions about how you change physically and emotionally during puberty.

SAY TO STUDENTS:

Today's lesson focuses on puberty. Puberty is the period in life when a person's body changes from that of a child to that of an adult who is able to reproduce. Many changes occur during this stage in life, and the reproductive systems begin to function.

1. Display slide B2: Vocabulary: Puberty and review the following definitions:

- **Puberty:** the period in life when a person's body changes from that of a child to that of an adult who is able to reproduce.
- **Hormone:** a chemical produced by the body that travels through the bloodstream to all parts of the body and affects how the body functions
- **Glands:** organs that produce hormones

2. Display slide B3: The Pituitary Gland and Puberty and SAY TO STUDENTS

Puberty begins when a small gland deep inside the brain, called the pituitary gland, begins producing more of the hormone that controls growth. This hormone goes throughout the body and causes the changes that occur to the body during puberty.

3. Display slide B4: Changes that Happen to Both Girls and Boys

SAY TO STUDENTS:

Some of the changes that occur during puberty happen to both girls and boys. Boys, however, generally begin to go through puberty a year or two later than girls. Boys may start puberty as early as age 10, but they sometimes don't start puberty until age 15 or 16. Everyone is different, however, and it doesn't matter when you start—your body will decide when the time is right.

- **Growth spurt:** During puberty the rate of growth speeds up, adding up to four inches to height each year for a few years.
- **More oil on the skin:** Glands in the skin which produce oil begin producing more oil during puberty.
- **Acne:** Pimples, blackheads, or whiteheads are caused when bacteria grows in the excess oil on the skin.

Increased sweat production: During puberty, sweat glands under the arms and in the genital area begin to produce a new kind of sweat, or perspiration.

- **Body odor:** When this new kind of sweat comes in contact with bacteria on the skin, an unpleasant smell that can occur. That's why it is important to wash away this new sweat.
- **Muscle development:** Boys and girls develop more muscles during puberty. Boys will develop more muscle than girls, but both will become much stronger during puberty.
- **Underarm hair:** Hair begins to grow under the arms.
- **Pubic hair:** Hair that begins to grow in the V-shaped area where the legs meet the body and around the genitals during puberty.

4. Display slide B5: Emotional Changes of Puberty and explain that the following emotional changes occur to both boys and girls during puberty:

- **Mood swings:** These sudden changes in emotion--from very happy to very sad or from sad to happy, or from easy-going to irritable--can happen for no apparent reason. These changes in emotion are normal and will settle down after a while.

- **Romantic attractions:** Boys and girls may also start to feel romantic attractions to others during puberty, although these attractions may happen early or late in puberty. Like all the other changes of puberty, everyone is different, and things happen when they are right for you.

5. Display Slide B6: Female Changes During Puberty

SAY TO STUDENTS

Female is the term we use to refer to girls and women. We use the term male to refer to boys and men. In girls, puberty begins when the pituitary gland sends a signal to the ovaries, the female reproductive glands, to start producing the hormone estrogen. Estrogen travels through the body and causes other changes which happen to girls only

- **Ovaries begin producing estrogen.** The ovaries, the female reproductive glands located inside the lower abdomen, or tummy, produce the female hormone estrogen, which causes changes in girls during puberty.

- **Breasts develop.** The milk producing organs on the chest get larger. This is caused by the development of fat which protects the milk-producing glands. It is important that these glands be protected because when a woman decides to have a baby, these glands produce milk to feed the baby. Although we can give babies other milk nowadays, the milk from a mother's breasts is the best thing for babies to eat. When the breasts begin to develop in girls, one breast usually starts to grow first. Then the other one catches up. The breasts can be very sensitive when they are starting to grow, so girls may decide to start wearing a bra to help support and protect their breasts.

- **Hips get wider.** This is caused by the widening of the hip bones and by the development of fat on the hips. All of this is intended to provide a safe and protected place for a baby to grow if the woman decides to have a baby.

- **Menstruation begins.** Each month, the uterus, the organ inside the female's body where a baby can grow, sheds its fluid lining during the girls or woman's period.

6. Display slide G7: Menstruation: Eggs Develop in the Ovaries and the Lining of the Uterus Thickens and SAY TO STUDENTS

Menstruation begins when, eggs, or ova, start maturing in the ovaries. While the eggs are maturing, the lining of the uterus produces a thick lining made up of blood cells, mucous, and other fluids. This is designed to provide a place for the baby to grow if the egg is fertilized.

7. Display slide G8: Menstruation: The Release of an Egg and SAY TO STUDENTS

Each month one mature egg is released from an ovary and begins to travel down one of the tubes to the uterus.

8. Display slide G9: Menstruation: The Fluid Lining is Released through the Vagina and SAY TO STUDENTS

If the egg is not fertilized, it breaks apart. The built-up lining of the uterus dissolves into a fluid and is released from the body along with the egg. This fluid travels out of the woman's body through the vagina for about 3-8 days. This is called the woman's period. During her period, a girl or woman uses an absorbent pad called a sanitary pad to soak up the menstrual flow. Once the flow ends, the process begins again with the development and release of another egg from an ovary. The whole process is called the menstrual cycle and happens about once each month.

SAY TO STUDENTS:

Now we will see a *video Just Around the Corner* (for Girls). This video will discuss the physical, emotional, and social changes that occur to girls during puberty. As you watch the video, see what other information is given about puberty that we haven't talked about yet. Remember, if you have any questions while you are watching the movie, you may write them on your index card so we can remember to answer them later.

Show video: Just Around the Corner (for Girls) (10 minutes)

After the video, ask students what information about puberty they noted in the video that class has not talked about yet. (may feel more self-conscious; everyone starts at different times; hair thickens on legs; periods are often irregular during puberty)

9. Show slide 11: Taking Care of Your Body During the Menstrual Period

SAY TO STUDENTS

What kinds of things will you need to do to take care of your body during your period? Allow students to share ideas.

10. Display slide G11: Taking Care of Yourself During Your Period and discuss proper hygiene during menstruation:

- Shower or take a bath regularly during your period. This is very important because you need to wash away any menstrual fluid not absorbed by the pad or tampon, as it will develop an odor.
- Get plenty of exercise. Although most girls and women don't experience much discomfort during their periods, some girls and women experience some cramping of the uterus, and exercise is a good way to reduce cramps and other discomfort during menstruation.
- If you have discomfort during your period, taking a warm bath or pressing a heating pad to your tummy may help. For serious discomfort, you should tell an adult in your family. Always check with an adult before taking any medication.

11. Display slide G12 Personal Hygiene Products (Pads and Tampons), show pads and tampons, and SAY TO STUDENTS

Personal hygiene products, pads or tampons, are used by women during their menstrual flow. A pad or napkin is a soft pad that is worn between the legs to soak up the menstrual flow. Pads come in lots of different sizes and shapes for different times during the period when the menstrual flow is lighter or heavier. They are worn inside the underwear, where they are held in place by a sticky strip along the bottom of the pad. Usually women change their pad each time they go to the bathroom. It is important to wrap the used pad in toilet paper and throw it in the trash can. Never try to flush a sanitary pad down the toilet, as it will stop up the toilet. Women's restrooms usually have a special trash can in the stalls for throwing away used sanitary pads. A tampon is a small roll of material that is put inside the vagina to soak up the menstrual flow. Tampons are held in place by the muscles of the vagina. If a tampon is put in properly, the girl cannot feel it. It has a string attached that allows the girl to pull it out and flush it down the toilet when she is ready to change it. Because the tampon is inside the girl's vagina, she can swim during her period if she uses a tampon. Most girls do not start using tampons until they have been menstruating for awhile. If you decide at some point that you would like to start using tampons, you will want to talk to an adult in your family for some advice and help.

Note to Teacher: *Girls usually have a lot of questions about menstruation, so provide time to answer any they have. See "Answers to Commonly Asked Questions" at the end of this lesson for suggested responses.*

12. Show slide 13: Taking Care of Yourself During Puberty

Many of the physical changes that occur during puberty will require that you take care of your body differently. What types of things do you think you may need to do differently to take care of your growing body?

- Eat a nutritious diet. Your body is growing new cells—muscles, bones, brain cells, etc.—and it needs healthy fuel.
- Get lots of exercise. This will help build strong muscles and bones, reduce mood swings, and make you feel less tired while your body is working hard to grow.
- Wash your face at least two times a day. Use a gentle soap or cleanser to wash away oil and bacteria and prevent acne.
- Wash your hair more often. The increased oil production will make your hair get dirty faster.
- Take a bath or shower regularly. This will wash away dirt, sweat and bacteria from your skin in order to prevent body odor—the unpleasant smell which can result from poor hygiene during and after puberty. Boys, especially, need to wash and dry the genitals daily.
- Use a deodorant or antiperspirant. These can be helpful in controlling body odor if they are combined with regular bathing. Ask your parent or guardian about this, because some people are allergic to deodorants and antiperspirants.
- Get plenty of sleep. This will help you have the energy you need for all the growing you are doing.

Answer Student Questions

As time allows, answer any additional questions pertinent to the instruction. (See —Guidelines for Answering Student Questions and —Answers to Commonly Asked Questions provided at the end of this lesson.) Otherwise, ask students to take any remaining questions home to an adult member of their family.

SAY TO STUDENTS

It is very important to discuss the topic of Human Growth and Development with your parents or guardians. They can answer a lot of the questions you may have about the changes you will be going through during puberty. Today's homework is a letter to your parents or guardians and a discussion activity to do with them. You do not need to write down their answers to the discussion questions.

Distribute the Home Connection Letter Note