Human Growth and Development

Boys Only – 5th Grade

Lesson One - Puberty

Materials needed: computer, projector, index cards, pencils, slide presentation: Boys 5th Grade, Media: *Just Around the Corner*, home connection letter

Essential Unit Questions: What are the physical and emotional changes that occur during puberty? What is puberty?

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

The following lesson is intended for BOYS only. If you are teaching a section of girls, 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 in BOYS

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 male reproductive system.

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 3: 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 4: 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 5: 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 6: 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.

SAY TO STUDENTS

Male is the term we use to refer to boys and men. We use the term female to refer to girls and women. In boys, the pituitary gland sends a signal to the testicles, the male reproductive glands, to start producing the hormone testosterone. Testosterone travels through the body and causes other changes to happen which happen to boys only.

5. **Display slide 7: Male Changes During Puberty and introduce changes that occur to boys only**

• Voice changes. The voice gets gradually deeper or lower during puberty as the voice box gets larger and the vocal cords thicken.

• Hair may grow or thicken on the face, legs, and chest. The amount of hair varies widely. Some boys will get a lot of body hair and some won't get much at all. Facial hair is usually one of the later changes of puberty.

• Testicles get bigger and begin to produce testosterone. These are two glands that hang in a sac of skin located on the outside of the body behind the penis. Testosterone is the male hormone that causes many of the changes of puberty.

• Sperm production begins. The testicles begin to produce sperm, the male reproductive cells.

• Penis gets larger. The penis is the male reproductive organ through which urine and semen pass out of the body (but not at the same time).

• Erections begin. The blood vessels in the penis sometimes fill with blood and the penis becomes hard and stands away from the body, sometimes because the male is sexually excited, but sometimes, during puberty, for no reason at all. An erection is necessary for reproduction to take place. An erection goes away by itself. Actually many boys get erections throughout their childhood, but they are more noticeable during puberty as the penis grows.

• Semen is produced. Semen is the mixture of sperm and other fluids that begins to be produced during puberty.

• Ejaculations may occur. This is when semen spurts out of the penis. This doesn't happen every time a boy has an erection. Most erections go away by themselves and ejaculation does not happen. During puberty, an ejaculation may sometimes happen during sleep.

• Nocturnal emissions (wet dreams) may occur. This is when a boy has an ejaculation during sleep. This may happen without the boy knowing it and may or may not wake him up.

• Breast development may occur. Most boys experience some breast development during puberty. This starts as a lump in one or both breasts. This is perfectly normal and will go away before too long.

SAY TO STUDENTS

Now we will see a video Just Around the Corner (for Boys). This video will discuss the physical, emotional, and social changes that occur to boys 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 boys) (10 minutes)

After the video, ask students what information about puberty they noted in the video that class has not talked about yet.

6. **Show slide 8: 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.) 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