Lesson

Adult led lesson

Changes

Background and rationale

A basic understanding of reproductive anatomy and functioning, and changes related to puberty, is important foundational knowledge. This helps in learning about relationships, sexual decision-making, pregnancy and sexually transmitted infection (STI) prevention. By middle school, most young people have had at least one lesson regarding puberty. This lesson, therefore, acts as a basic review. It normalizes changes young people experience during this period by showing that most changes are universal to all genders and sexes.
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Before you go into the classroom

Objectives

By the end of this lesson, students will:

• Identify sexual and reproductive body parts and their functions.

• Identify physical and emotional changes that take place during puberty.

• Explain male and female reproductive systems and their relationship to conception and pregnancy.

• Identify ways to manage the changes of puberty.

• Identify medically accurate sources of information on puberty and reproduction.
1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.

1.6.16 – Identify the human sexual and reproductive systems including body parts and their functions.

1.6.20 – Describe health care practices related to physical changes during puberty.

1.6.22 – Describe the physical, social, cognitive and emotional changes of adolescence.

1.6.25 – Define sexual intercourse and its relationship to human reproduction.

3: Students will demonstrate the ability to access valid information, products and services to enhance health.

3.6.7 – Identify sources of medically accurate information about human sexual and reproductive anatomy.

3.6.8 – Identify resources, including people at home, school or in the community, who can provide medically accurate information and/or support about puberty and health care practices during puberty.
7: Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

7.6.12 – Describe ways to manage the physical and emotional changes associated with puberty, including personal health care practices.
This lesson takes 50-55 minutes as written. It can vary depending on the length of discussions.
Classroom setup and preparation

• Organize small mixed-gender groups. Do so before class starts.

• Display ground rules and keep them up for the duration of all lessons.

• Handouts are at the end of the lesson.

• Copy one per student
  » “Learning Outside the Classroom 1” worksheet

• Copy the following onto large poster paper or white board (display and keep it up for all lessons):
  » Ground rules:
    ◊ Respect each other’s ideas and opinions.
    ◊ Do not tell personal stories or ask personal questions.
    ◊ Everyone should participate as much as possible.
    ◊ It’s OK to pass.
    ◊ Clapping pattern = stop and listen.

• Create three “Changes of Puberty” posters with the following headings:
  » “Most Often People with Male Body Parts”
  » “Most Often People with Female Body Parts”
  » “All People”

• Hang the three posters around the room. However, keep them covered until the “Changes of Puberty” activity.
Classroom setup and preparation

- Gather laminated materials:
  » “Vocabulary Terms and Definitions” cards
  » “Changes of Puberty” cards

- Tape definition cards on board or walls around the room.

- Gather the following materials:
  » Ground rules copied onto poster paper or white board
  » Projector for showing PowerPoint (if applicable) and video
  » Poster paper
  » Markers
  » Tape
  » Laptop or other computer to show video
  » “Changes of puberty” resource list
  » Blank pieces of paper for question box
  » Question box

- Have projector ready to go. This way you are ready to show the PowerPoint with the reproductive health systems and videos. If a projector is unavailable, make copies of PowerPoint slides to use with a document camera, or as handouts.

- Make sure you have an internet connection to play the video. If your classroom does not have internet or the site is blocked, make sure to download the video ahead of time.
  » Set up a laptop with a link to video.
Classroom setup and preparation

• Have the following videos downloaded or ready to play:
  » “Bodies: Different Shapes and Sizes. All Beautiful!” (optional) — 1:53
    https://www.youtube.com/watch?v=Fcy_VQZG5Dg
  » “Top Signs Boys are in Puberty” (optional) — 3:24
    https://www.youtube.com/watch?v=onggxBVI4qw
  » “Top Signs Girls are in Puberty” (optional) — 1:57
    https://www.youtube.com/watch?v=r6oka_hqMJk

• Choose one of the following videos:
  » “Pregnancy and Reproduction Explained” — 2:32
    https://www.youtube.com/watch?v=OejdOS4IqeE
  » “Where do Babies Come From?” — 3:35
    https://youtu.be/vudZePDq8Bw
In the following instances, it’s helpful to show a video on puberty before this class session so terms and concepts are familiar to students:

» If students have not received any previous education or information about puberty.

» If it was brief and a few years ago.

Find out what videos your district has used before. Make sure the video you choose is up to date. You can also look for a video at AMAZE.org. There, you can find many informative short videos on puberty.

Students will be working in pairs and then in three small groups. After the vocabulary matching activity, combine pairs until you form three equal sized mixed-gender groups.

For the sake of clarity, the terms “male” and “female” are used in reference to certain anatomy (e.g., “male” or “female” reproductive systems). These terms refer to biological sex or the sex a person was assigned at birth based on their anatomy. For example, a baby born with a vulva is likely to be identified as “female” and assigned the gender of “girl.” However, avoid assuming that all of your students have the “usual” genitalia or reproductive anatomy or that their gender identities will match their sexual anatomy. For example, a person can have a penis and not identify as a boy or have a vulva and not identify as a girl. Referring to people with certain body parts (such as “a person with a vulva”) will create a more inclusive classroom than “female anatomy.”
Special instructions

• It is important to be familiar with the human reproductive system and its functioning. It is also important to be prepared to respond to questions. You will find a review at www.sexandu.ca/your-body/sexual-reproduction and http://www.sexandu.ca/your-body/puberty. Follow Oregon’s or your district’s policies when sharing about human reproduction. Those policies tell you what you can and cannot share.

• This lesson takes 55 minutes as written. If there is extra time, you can provide more detail on the reproductive system and functions. Students may have many questions for the teacher.

• If time permits, divide this lesson into two lessons:

  » First lesson:
    ◊ “Vocabulary matching” activity
    ◊ In-depth discussion of the reproductive system and functions

  » Second lesson:
    ◊ Video about body changes
    ◊ Longer discussion about social and emotional changes
    ◊ More discussion and response to questions during the “Puberty changes” activity

• After each lesson, review the questions from the question box to prepare and research your answers. The 55-minute lesson time does not include time to answer questions in the question box. It is important to decide for yourself when the best time is to address these questions with your class.
Discussion and information

Instruct students to clear their desks or tables and to organize in pairs.
Pass out slips of paper to students for the question box.

“We are starting a series of lessons today called “My Future-My Choice.”

We are going to discuss what it means to be healthy. We are also going to discuss why it’s important to make healthy choices for ourselves. We will talk about being physically healthy and being healthy in our relationships with other people. This includes our responsibilities in those relationships, and how we interact and communicate with others.

During these lessons, it’s important to remember there are a lot of different views on this subject. There are different backgrounds, cultures and traditions. We always need to be respectful of our differences.

These lessons can help you understand how the decisions you make now can affect your future.
During these lessons:

• You will learn about changes that your body goes through when you are becoming an adult. You will also learn about the emotional and social changes that go with that.

• We will discuss the different ways people may identify as they grow older. Additionally, the ways they may express themselves. We will also discuss the importance of treating everyone with respect.

• We will also talk about setting goals and making decisions. We will talk about the different pressures you may face. This relates to decisions about relationships and as you get older, around sexual activity.

I’m looking forward to the My Future-My Choice lessons.

It’s important for you all to be able to make healthy decisions about your future.
During the lessons, we will use a question box.

At the start of each lesson, everyone will receive a small sheet of paper. On that sheet of paper, you can write down an anonymous question that relates to My Future-My Choice.

At the end of each lesson, I will pass around the question box to add your question. Everyone should put a question into the question box. However, if you don’t have a question, you can put a comment into the question box instead. Otherwise, you can just write “I don’t have a question.”

I will spend time answering your questions after each lesson. Hopefully, the question box will make it more comfortable for you to ask questions.

Does anyone have any questions about the question box?
We are going to be sharing ideas and opinions with each other. So, let’s establish some ground rules to follow during our lessons. This will help everyone feel comfortable and safe when participating.

Here are the classroom ground rules:

Read the ground rules from the poster and explain them in your own words.

The first ground rule is:

Respect each other’s ideas and opinions.

During these lessons, it’s important to be respectful and kind. No put-downs or laughing at each other. It’s OK to laugh when something is funny. However, it’s not OK to laugh at someone’s idea or opinion.

The second ground rule is:

Do not tell personal stories or ask personal questions.

Because we are in a large group, it’s best not to tell personal stories about you, your friends or family members. If you do share, say, “I know someone who…” but don’t use names. If you need to discuss a personal situation, I can refer you to a place where it is safe to talk.
You may already know that there are some things that I, as a teacher, cannot keep private. For example, if a student says someone is hurting them, or that they were thinking of hurting themselves or someone else. In those cases, I’d have to tell someone about it so that the student could get help.

The third ground rule is:

**Everyone should participate as much as possible.**

Throughout our lessons, we will be doing lots of fun activities, so we want everyone to participate as much as possible.

The fourth ground rule is:

**It’s OK to pass.**

No one has to share anything they don’t want to. If you feel uncomfortable at any time, we will respect your right to pass.

The last ground rule is:

**Clapping pattern = stop and listen.**

When you hear the clapping rhythm (clap slowly twice and quickly three times), you should repeat it back. It is a signal for you to stop, listen and focus.
Let’s practice a clapping pattern now:

Let’s all talk at once about what you plan to do today after school. When you hear the clapping pattern, stop talking and repeat the clapping pattern back to me.

Make clapping call. Listen for students to repeat the pattern.

If not enough students are clapping, repeat it until all students are responding.

Good job!

Does everyone understand and agree to follow these ground rules?
Throughout our lives our bodies go through changes. Some changes are easy to see. Some happen on the inside and are not as noticeable.

Some changes that occur in young people about your age have to do with puberty.

Puberty is when your body physically begins to change. It changes from being a child to becoming an adult.

It’s important to know how some of those changes you are experiencing can affect the way you feel and think about yourself. It can also affect the way you feel and think about others and the choices you make.

Puberty causes a change in the body so that a person may be able to become pregnant or cause a pregnancy. So, we are going to discuss the sexual and reproductive system, the parts that make babies.

Most people have reproductive parts known as male or female. Most people who have male reproductive parts are boys. Most people who have female reproductive parts are girls.

We are going to be talking about male bodies and female bodies. However, some people’s bodies are not clearly one sex or the other. They are intersex. Everyone, no matter what body parts they have, goes through puberty.
The first thing we need to do is review some of the words you may hear during our lessons. Some words may be new to many of you, so let’s discuss what they mean.

We are going to do an activity to help you learn vocabulary terms. These are terms that relate to puberty. Each pair of students will receive a card with a word on it. The goal is to find the card with the matching definition. Once you have found your card, return to your seat.

Use the “Vocabulary Terms and Definitions” cards for this activity.

Hand out one vocabulary word card to each pair of students.

**Note:**
It is OK if you have leftover cards and need to give each pair more than one word. Also, it is OK to have student pairs share a card if there are not enough.

Instruct student pairs to get up and search the room for the matching definition taped on the board or wall.

Once they find their matches, one student should take the word card to their seat. The other student should take the definition card to their seat.

If students do not recognize their word, help them find the correct definition. You can also suggest they match the number on their term card with the number on the definition card.
This activity incorporates movement in the classroom. It helps students learn a few key terms and concepts. If there are students for whom movement is a challenge, provide the definitions on a worksheet. Have student pairs circle the definition that matches their word.

Now that everyone has found their matching cards, let’s review the male and female reproductive systems. As we review these graphics, I will ask you to read your term and definition out loud to the class.

Start Lesson 1 “Changes” PowerPoint.

Show slide 1:

Use the labeled visuals provided at the end of the lesson, or on the PowerPoint slides. Identify the parts of the male and female reproductive system shown.
As you get to each vocabulary term, ask the pair with the matching cards to stand and read the term and the definition on their card.

Take time to answer questions about the following:

- Reproductive systems
- Puberty
- How pregnancy happens

Show slide 2:
Have students read the following female anatomy vocabulary term and definition cards as you go over the female reproductive system:

- **Vagina:** This part of the female reproductive system serves as the birth canal (the passage a baby goes through when it is being born) and is where menstrual flow leaves the body.

- **Uterus:** This muscular organ in the female reproductive system is where the fetus grows and is nourished until it is born.

- **Ovaries:** This pair of glands in the female reproductive system, located on either side of the uterus, is where eggs are stored and the hormone estrogen is produced.

- **Fallopian tubes:** The tubes that transport an egg from the ovaries to the uterus.

- **Egg or ovum:** The female reproductive cell stored in the ovaries.

- **Ovulation:** This is when ovaries release an egg or ovum. The egg moves to the uterus during this time.

- **Menstruation:** Blood passes from the uterus, out of the body through the vagina, for several days when one is not pregnant. It occurs in female bodies about once a month. It is also called “having a period.”
Have students read the following external female anatomy vocabulary term and definition cards as you go over the external female reproductive system.

Show slide 3:

- **Pubic hair**: Hair that starts to grow around the genitals at puberty for all genders. It provides protection for the genitals from injury and bacteria.

- **Vulva**: The external (outside) female genitalia includes labia (lips), the opening to the vagina, the opening to the urethra and the clitoris.

- **Clitoris**: This is a small very sensitive organ in the front of the female genitalia area.

- **Labia**: Lips of the vulva, or folds of skin, that surround the opening to the vagina. Can be different sizes, shapes, colors, and textures and are part of what makes a vulva unique.
• **Urethra:** The tube that carries urine out of the body. In bodies with a penis, this tube also carries semen out of the body.

• **Anus:** The opening at the end of the digestive tract through which solid waste leaves the body.

• **Vaginal secretions:** This small amount of fluid that comes out of the vagina keeps the vagina clean and helps to prevent infection.
Have students read the following male anatomy vocabulary term and definition cards as you go over the male reproductive system.

Show slide 4:

- **Penis**: This is the male organ through which urine and semen pass.

After this card is read add:

Some people have a circumcised penis. This means the foreskin at the end of their penis was removed. It was removed by a doctor or other professional. This can be done for a number of reasons. They may be cultural, for health reasons or because of the choice of a parent or guardian. Some people have an uncircumcised penis. This means they still have the foreskin at the end of their penis. Whether circumcised or not, both are normal.
• **Testicles:** A pair of glands in the male reproductive system hanging outside the body, below the penis, in a sac called the scrotum. This is where sperm and the hormone testosterone are produced once puberty begins.

• **Vas deferens:** The thin muscular tube that carries sperm from the epididymis to the urethra.

• **Prostate gland:** A small gland that surrounds part of the urethra and produces some of the fluid in semen.

• **Epididymis:** A set of coiled tubes found behind the testes. Sperm is stored here until it is ready to exit through the vas deferens.

• **Scrotum:** A pouch-like structure that holds the testes and epididymis in place.

• **Seminal vesicles:** A pair of glands found at the base of the bladder that secretes part of the fluid that makes up sperm.

• **Bladder:** A muscular sac in the pelvis that holds urine.

• **Erection:** A blood flow to the penis causes it to harden and lengthen.

• **Ejaculation:** A sudden discharge of fluid comes out of the penis (male bodies) or from the Skene’s glands inside the vagina (female bodies). It is often associated with strong sexual feelings.
• **Semen:** The fluid that comes out of the penis during ejaculation. It contains sperm which is produced in the testicles.

• **Sperm:** The male reproductive cell produced in the testicles.

• **Nocturnal emissions:** This is also called “having a wet dream.” It occurs when a person is sleeping and some discharge (either fluid from the vagina or fluid from the penis) comes out. It is completely normal to have this kind of discharge and also completely normal not to have it. It occurs commonly in people your age and the amount can be a lot or a little.

Explain what masturbation is and how pregnancy occurs by saying the following:

> People with male or female genitals may choose to masturbate. Masturbation is touching your own body and genital organs for pleasure. This is a normal and healthy behavior. If a person chooses to masturbate, it should be done in privacy. Families can have different values about masturbation.
It is important to know that when a person goes through puberty their body is mature enough to reproduce sexually. This is when a young person can get pregnant or cause a pregnancy.

The most common way a pregnancy occurs is when a penis enters a vagina and releases sperm through ejaculation. This is called sexual intercourse. It is also called “having sex.” When one of those sperm meets up with an egg from the ovary, a pregnancy can occur.

Select one video to show:

“Pregnancy and Reproduction Explained” 2:32
https://www.youtube.com/watch?v=OejdOS4IqeE

“Where Do Babies Come From?” 3:35
https://youtu.be/vudZePDq8Bw
Am I normal?

Discussion and information

Puberty can begin anywhere from around age 8 to around age 16. It continues until a person is fully grown. Whatever age your body goes through puberty is the right age for you.

Puberty starts because a person’s body begins to produce a large amount of hormones. The body was only producing small amounts of hormones before. All changes of puberty, including the physical, social and emotional changes, happen because of this increase in hormone production. Social changes mean changes in your relationships with other people. Emotional changes mean changes in how you feel.

Sometimes when young people start going through changes in puberty, they wonder if they are normal. They question whether their peers are also experiencing the same things. They are curious if they are ahead or behind others in going through these changes.
I want to assure you that whenever you experience the changes of puberty, it is the right time. There is nothing you can do to yourself to change when you go through puberty. It is already programmed in your DNA. Just like you can’t control your eye color or your height, you can’t control when you go through puberty. (There are, however, times when some people need to visit a doctor for medicine to help them start puberty sooner. There are also times when people may need to help from a doctor to put it off until a little later.)

The thing to remember is that everyone goes through it. Everyone ends up in the same place when puberty is finished, which is having an adult body. People can become very critical of their own bodies. They start noticing every single pimple or feel pressure to look a certain way. Likewise, they may think they are too tall or too short or not enough this or that. These are normal feelings to have, but try not to let other people or the media decide how you should look.

Keep in mind, teasing people about their bodies is a form of bullying. It is not OK.
Activity: optional

Let’s watch a short video about what changes can happen during puberty.

If there is time and it makes sense for your students, show:

“Top Signs Boys are in Puberty.” 3:24
https://www.youtube.com/watch?v=onggxBVL4qw

“Top Signs Girls are in Puberty” 1:57
https://www.youtube.com/watch?v=r6oka_hqMjK

“Bodies: Different Shapes and Sizes. All Beautiful!” 1:53
www.youtube.com/watch?v=Fcy_VQZG5Dg.
Let’s do an activity that looks at some of the changes of puberty. These changes can be physical, social and emotional.

Divide the class into three groups. You will then be ready for the “Changes of puberty” activity.

Each group needs to select a volunteer. Ready? Go!

Reveal the three “Changes of Puberty” posters with each reflecting a different title as follows:

- “Most often People with Male Body Parts”
- “Most often People with Female Body Parts”
- “All People”

We have three posters on the wall. One states “Most often People with Male Body Parts,” one states “Most often People with Female Body Parts” and one states “All People.”
Each of your groups will receive several cards. These cards list physical and social or emotional changes that happen during puberty. Green cards list the physical changes. Blue cards list the social or emotional changes. With your group, decide who each of the physical, social or emotional changes mostly happens to.

*Is it most often people with male body parts, people with female body parts, or all people?*

Once your group decides your answers, a volunteer from your group will tape them on the correct poster paper.

Hand out several “Changes of Puberty” cards to each group.

*Any questions before we start?*

Ready? Go!

Once all of the cards are on different posters, go over the “Changes of puberty” activity. Use the “Changes of puberty resource list” that follows.

Start with the physical changes. After that discuss the social or emotional changes.

At the end, make sure to stress that changes occur for everyone during puberty. Emphasize that this includes these physical and emotional changes.
## Changes of puberty resource list

Puberty changes can extend over an 8–10-year period. These changes include:

<table>
<thead>
<tr>
<th>All people</th>
<th>Most often people with female body parts</th>
<th>Most often people with male body parts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical changes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acne (pimples)</td>
<td>Starting to ovulate</td>
<td>First ejaculation</td>
</tr>
<tr>
<td>Growth of hair under arms</td>
<td>Starting to menstruate</td>
<td>Starting to produce sperm</td>
</tr>
<tr>
<td>Appearance of pubic hair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth of internal and external sex organs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth to a maximum height</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enlargement of breasts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body odor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nocturnal emissions or “wet dreams”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth of facial hair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marked voice changes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Muscle development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May want to use deodorant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May need to shower or bathe more often</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May need regular exercise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May need to get enough sleep</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The way your body changes during puberty is different for everyone. This is true of both physical and emotional changes. Each person’s own development is normal.
Physical changes are a natural part of becoming an adult. The same thing is true for social and emotional changes. It takes time to learn ways to handle the changes that adolescence brings. This is especially true for newly developing sexual feelings.

Where are some good places someone could go if they wanted to learn more about puberty, the reproductive system or for support in managing the changes of puberty and adolescence?

Resources you want to encourage:

- Books from the library or the bookstore
- Films or DVDs that you see in school
- The school nurse
- Their doctor

If students suggest the internet, there are things you will want to point out. Make sure to reinforce that the internet has some reliable and accurate information. However, it also has a lot of misleading and untrue information. So, the internet is only a good source if they find a reliable site.

The same is true for television or even magazines.

If students suggest friends or older siblings, be sure to provide an answer. Tell them that, although we learn a lot from our friends, classmates and older siblings, they often don’t have correct information. Therefore, they may not be a good source.
Tell students if they learn something about puberty or the reproductive system from someone their age or from an older child or teenager, they should check it to make sure it is right. They can ask an adult. They can also look in a reliable book to find out if it is correct.

Be sure to offer information on how students can access their local resources; e.g., school-based health center, school nurse, local health department or clinic.

I’m going to pass out a worksheet about the information we learned today. Take it home and discuss it with a parent, guardian or trusted adult. For our next lesson, we will learn about parts of our identity. We will also discuss the many ways people express themselves.

Hand out “Learning Outside the Classroom 1” worksheet (page 47).

Collect questions for the question box.
Female anatomy

- Fallopian tube
- Ovary
- Uterus
- Vagina
External female anatomy

- Clitoris
- Opening to urethra
- Labia
- Opening to vagina
- Pubic hair
- Vulva
- Anus
Dear Parent, Guardian or Trusted Adult,

As part of the My Future-My Choice program, please work with your student to complete the following worksheet assignment.

Today in class we talked about some of the physical and emotional changes that occur during puberty and how these changes can sometimes affect how we feel about ourselves and others. We also learned about the male and female reproductive systems. Please take some time this week to share your own experiences using the following points:

1. List five physical changes and three social or emotional changes that youth experience during puberty.

2. Discuss what you think are the best aspects of puberty.

3. Discuss what you think are the most challenging aspects of puberty.

4. List five strategies for managing some of the challenging parts of puberty.