Reproduction/Sexuality:

Reproduction/Sexuality involves physical development, emotions, and social elements. Instruction incorporates aspects of biology, psychology, sociology, literature, the arts, and philosophy.

The study of Reproduction/Sexuality provides young people with the knowledge and skills necessary to make informed choices. It addresses decisions about abstaining from and postponing sexual intercourse. Knowledge about how to avoid sexually transmitted infections that endanger one's health and well-being as well as that of a partner is an important component of instruction. Communication skills can support such decisions. Addressing Reproduction/Sexuality in an appropriate and factual fashion leads to informed young people, increasing the likelihood of students making healthy decisions. It is particularly important in Reproduction/Sexuality to consider developmental appropriateness. Topics generally covered in Reproduction/Sexuality include: Development and Wellness.

Note: Please see parental notification law in Appendix B.

PreK–12 Standard 4: Reproduction/Sexuality

Students will acquire the knowledge and skills necessary to make effective personal decisions that promote their emotional, sexual, and reproductive health.
Reproduction/Sexuality

PreK–12 STANDARD 4: Reproduction/Sexuality

Students will acquire the knowledge and skills necessary to make effective personal decisions that promote their emotional, sexual, and reproductive health.

<table>
<thead>
<tr>
<th>GRADE LEVEL</th>
<th>LEARNING STANDARDS</th>
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<tbody>
<tr>
<td>By the end of grade 5</td>
<td><strong>Through the study of Development students will</strong></td>
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<tr>
<td></td>
<td>4.1 Identify the components, functions, and processes of the reproductive system</td>
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<tr>
<td></td>
<td><strong>Students label the functions and/or systems of the reproductive system on a blank diagram</strong></td>
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<td></td>
<td>4.2 Identify the physical changes as related to the reproductive system during puberty</td>
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<td></td>
<td><strong>Invite the school nurse or a health care professional who specializes in children to discuss the changes that take place in boys and girls at puberty</strong></td>
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<td></td>
<td>4.3 Define sexual orientation using the correct terminology (such as heterosexual, and gay and lesbian)</td>
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<td></td>
<td><strong>Through the study of Wellness students will</strong></td>
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<td></td>
<td>4.4 Recognize that diet, exercise, rest, and avoidance of risk behaviors such as smoking, drinking, and other substance use contribute to the health of a mother and fetus</td>
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<td></td>
<td><strong>Students write short answers to define the types of sexual orientation</strong></td>
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<td>By the end of grade 8</td>
<td><strong>Through the study of Development students will</strong></td>
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<td></td>
<td>4.5 Recognize the emotional and physical changes as related to the reproductive system during puberty</td>
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<td></td>
<td><strong>Through the study of Wellness students will</strong></td>
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<td></td>
<td>4.6 Explain the benefits of abstinence, postponing sexual behavior, and setting limits on sexual behavior</td>
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<td></td>
<td>4.7 Describe short- and long-term consequences of sexuality-related risk behaviors and identify barriers and supports for making health-enhancing decisions</td>
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<td><strong>Students discuss consequences around sexuality decisions. Determine and role-play steps that improve decision-making (such as with whom to consult, information overlooked)</strong></td>
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<td></td>
<td>4.8 Describe behaviors and methods for pregnancy prevention, including abstinence</td>
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<td></td>
<td>4.9 Define the types of sexually transmitted infections (STIs), including HIV/AIDS, and how they are prevented</td>
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<tr>
<td></td>
<td><strong>Students report on the policies of various states and countries regarding STIs prevention among youth</strong></td>
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<td></td>
<td>4.10: Identify sexual discrimination and harassment</td>
</tr>
<tr>
<td></td>
<td><strong>Students use current events or media portrayal to discuss the consequences of discrimination based on sexual orientation</strong></td>
</tr>
</tbody>
</table>
4.11 Identify the stages of the male and female reproductive systems over the life cycle

4.12 List the signs of pregnancy

4.13 Describe the effectiveness and consequences of various pregnancy, HIV, and STI prevention methods, including abstinence

*Students identify ways to prevent pregnancy and sexually transmitted infections*

4.14 Identify possible determinants of sexual orientation and analyze the weight of each in light of available research

**Through the study of Wellness students will**

4.15 Explain the importance of examination of both genders for HIV and STIs before conception and the risks and precautions of delivery when HIV and STIs are present

4.16 Describe proper prenatal care and identify types of birth defects

4.17 Explain the importance of communication and setting limits in a sexual relationship

4.18 Identify and distinguish among types and degrees of sexual risk (pregnancy, sexual assault, STIs, including HIV/AIDS)

4.19 Evaluate the impact of HIV/AIDS on the community, medical resources, and family

4.20 Identify resources available for treatment of reproductive health problems

### Grades 9–12

**Interdisciplinary Objectives: Reproduction/Sexuality**

4.a. (Law and Policy, Connects with History & Social Science: Civics & Government)

Identify and explain laws about reproductive services

4.b. (Law and Policy, Connects with History & Social Science: Civics & Government)

Explain the laws and relevant court rulings concerning rights about consensual sexual relationships and reproduction (e.g., Roe v. Wade, Bowers v. Hardwick)
“THEY TELL ME I’M GOING THROUGH PUBERTY”

Hi, I’m Chris and I’d like to tell you about what’s happening to me. It seems that every day brings a new change. It’s almost like I’m getting a new body! They tell me I’m going through puberty.

One thing that’s happening is this new hair that’s growing in places it’s never been before. Like under my arms. I know this is normal and all, but it still takes getting used to.

I don’t mind some of the changes I’m seeing. In fact, some things I even like. I’m taller than I was last year. I know I’m smarter just because I’m able to think and write about what I’m going through now.

But then, there are some changes that aren’t so good. Like B.O., body odor. The first time I noticed it, I thought I had some kind of disease or something. Now I realize it’s not too bad if I wash or use deodorant.

A really dirty trick though, is acne. I remember I was getting ready to go to a party, washing up and stuff, when I looked in the mirror and saw this big zit staring back at me. I held hot wash-cloths on it for a long time. It went down, but not the whole way. I went to the party anyway. I noticed that many other kids had the same or worse luck with their zits. I wonder how common this is.

There’s one thing I get a little embarrassed about. It’s even hard for me to say this. When I was at the party the other night, I was with someone I like (and I’m not mentioning any names). I got this new feeling. It was strange but kind of nice. They tell me it’s normal. Is it?

They tell me I’m going through puberty. That means I have to go to school with my zits and my B.O. But, I’m taller and smarter. I think I’ll survive.

Do you think Chris is a boy or a girl, or are you unsure?


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**Puberty Changes Checklist**

Name: ___________________________

**Directions:** The first column describes characteristics that develop during puberty. Some changes only happen to MALES, some only happen to FEMALES, and some will happen to BOTH. Read through the list and put a “check” in the correct column.

<table>
<thead>
<tr>
<th>CHARACTERISTICS</th>
<th>MALE</th>
<th>FEMALE</th>
<th>BOTH</th>
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<tbody>
<tr>
<td>1. Body hair grows under arms</td>
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<tr>
<td>2. Pimples and acne may develop</td>
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<td>3. Hair grows on the face</td>
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<tr>
<td>4. Body hair grows near the genitals (pubic hair)</td>
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<td>5. Penis and testicles grow larger</td>
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<td>6. Breasts develop</td>
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<td>7. Nocturnal emissions (wet dreams) start happening</td>
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<td>8. Menstruation (period) begins</td>
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<td>9. Voice changes and deepens</td>
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<tr>
<td>10. Moods swing a lot more</td>
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<tr>
<td>11. Body odor is stronger</td>
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<tr>
<td>12. Shoulders widen</td>
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<td></td>
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<tr>
<td>13. Hips widen</td>
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</table>
The Journey of an Ovum

Read the following story and fill in the blanks using the words provided.

Once upon a time, there was a female reproductive system. Each month, the (1. ____________) invited a thick, soft lining made up of tissue and blood to grow along its walls. The lining contained nutrients that would be needed to nourish a growing baby if a pregnancy was to occur. Once the lining had grown, it waited for the ovaries to do their job.

You see, the ovaries contained special reproductive cells, each called an (2. ____________). Each month, one of these cells would reach maturity and be released from the (3. ____________). This month, it was the right ovary that got to release an ovum. The left one would have to wait until the next month. The (4. ____________), which wait for the ovaries to release an ovum, waved their numerous arms. The waving arms grabbed the ovum that was just released and gently guided it into one of the tubes. After about a day of travel, the ovum began to dissolve. When it had disappeared, the brain sent a message to the lining of the uterus telling it that a fertilized ovum wasn’t going to arrive, so it could leave the uterus. Slowly, the lining passed through the (5. ____________), into the (6. ____________), and out of the female’s body.

As soon as the lining was gone, the uterus invited a new lining to start to grow. This time around, it would be the ovary and fallopian tube on the left that would do all the work. Then, the process would start all over again. The process is called (7. ____________).
The Journey of a Sperm

Read the following story and fill in the blanks using the words provided.

Once upon a time, there was a pair of (1. ______________). They were held in a special sac called the (2. ______________). This sac could hold the testicles close to the body to keep them warm, or let them hang away from the body to keep them cool. The testicles made special reproductive cells called (3. ______________). Once these cells were made, they would wait to be released from the testicles. Sometimes, they would wait so long that they dissolved. Other times, they would be released from the testicles, make a journey through the male reproductive system, and leave the male’s body. When the sperm leave the penis, it is called ejaculation.

On the day in question, it just so happened that the sperm got to be released from the body. First, the (4. ______________) became larger, longer and firmer until it stuck out from the body. (When the penis gets this way it is called an (5. ______________). Erections are a normal process of growing up, and can happen for physical reasons or because of sexual arousal.) Then the sperm traveled up the (6. ______________). Along the way, it mixed with prostatic fluid from the prostate gland and seminal fluid, which was made in the (7. ______________). Once these fluids mixed, they decided to call themselves (8. ______________). Together they traveled from the vas deferens into a tube called the (9. ______________). (There are two branches to the urethra, one from the bladder and the other from the vas deferens. When the penis is ready to release semen, a valve blocks off the branch to the bladder so (10. ______________) cannot escape. Only one of the two fluids can pass through the urethra at a time.)

By this time, the semen was almost at the end of the journey. After traveling through the vas deferens and the urethra, the semen was released from the penis in a process called (11. ______________). The erection went away, and the penis became smaller and softer.

The End
Once upon a time there were two important cells: one cell was made and stored in a testicle, and it was called a sperm cell. The other was stored in an ovary and was called an ovum. These two cells had a very important journey to make! For if they were to meet one another an awesome event would happen.

The sperm cell had the longer journey to make. The sperm cell needed to travel from the testicle through the vas deferens all the way to the urethra and out of the end of the penis into the vagina, then through the cervix, through the uterus, and into the fallopian tube. There it would meet the ovum. As the sperm cell traveled through the vas deferens it mixed with other fluid and was now called semen. The process where semen leaves the penis is called ejaculation. In order for the two to meet, the ovum would mature and leave the ovary. It would travel out of the ovary and into the fallopian tube. The process where the ovum leaves the ovary is called ovulation.

This full journey is able to happen through sexual intercourse, this is when a man's penis enters the woman's vagina, sperm cells in semen squirt (ejaculate) out of the end of the penis and inside the woman's vagina. Hundreds of millions of sperm cells ejaculate out of the penis, however only around 1,000 make it as far as the fallopian tubes. The Semen containing sperm travel from the vagina, through the cervix into the uterus in search of the ovum.

Once the sperm found the ovum they started to try to break through the outer lining of the ovum. One sperm cell broke through the lining and attached to the ovum. This breaking through and attaching process is called fertilization. Once one sperm cell enters the egg none of the other sperm cells that made the epic journey can enter. The two cells now became one. This new cell began to divide into two identical cells, and those two into four, and those four into eight and so on, until many cells formed a larger ball of cells. This new ball of cells continued to travel through the fallopian tube into the uterus. Once this cell entered the uterus, it found a comfortable place to rest, and it attached itself to the wall of the uterus. This is called implantation. Once implantation has happened, the process of conception is complete, and the ball of cells begins to grow into a baby. The awesome event has happened, and a new journey has begun: the journey of the developing baby.

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The First Trimester

The first trimester (or first 3 months) is a critical time in the baby's life. It's a time of rapid growth and development. It's also a time when the baby is most susceptible to such hazards as smoking, drugs, and x-rays.

1 days

The sperm and ovum unite.

7 to 10 days

The fertilized ovum becomes implanted in the lining of the uterus. The placenta begins to form.

2 weeks

The embryo is now a layered disc on the uterus wall. The mother misses her menstrual period.

4 weeks

0.4 g (0.01 oz)

The beginnings of the embryo's eyes, ears, nose, spine, digestive tract, and nervous system are present. The tube for the future heart starts beating.

8 weeks

22-24 mm (1 in)
1 g (.03 oz)

The fetus now has all the organs that a full-term baby would have. The heart is functioning. Bone formation begins.

12 weeks

9 cm (3.5 cm)
15 g (1/2 oz)

The baby's sex can be distinguished. "Baby" teeth buds are present. Fingernails and toenails are forming. Immature kidneys secrete urine to the bladder. The fetus can now move in the amniotic fluid, but can't be felt by the mother.

* adapted from Baby's Best Chance, 5th Edition, Province of B.C.

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The Second Trimester

During the second trimester, or the second three months of the fetus's life, the brain develops considerably. In fact, most of the brain's development occurs during the period from now until 18 months after birth. During the second trimester, though, the fetus cannot live outside the mother's body because its respiratory and cardiovascular systems are not developed enough.

16 weeks
16 cm (6.5 in.)
100 g (4 oz.)

The face looks more human, the head has hair, and the ears stand out. Between the eighteenth and twentieth weeks, the fetal heart can first be heard with a stethoscope. The baby's movements may be felt by the mother. The mother may not feel the baby's movements until 18 to 20 weeks, especially with the first pregnancy.

17 weeks

The baby begins to store some of the mother's antibodies, which slowly increase until birth.

20 weeks
25 cm (10 in.)
300 g (10 oz.)

Eyebrows and eyelashes appear. A fine downy hair (lanugo) appears all over the baby's body and may still be present at birth. The baby's skin is thin, shiny and covered with a creamy protective coating called vernix. Oil glands appear. The baby's legs lengthen, and the baby can move its legs well. Teeth develop - enamel and dentine are being deposited (can begin as early as 14 weeks). (By the end of the fifth month, the baby is about half the length of a newborn baby.)

* adapted from Baby's Best Chance, 5th Edition, Province of B.C.
24 weeks
30 cm (12 in)
600 g (1.25 lb.)

Sweat glands form. The baby has a lean body. The baby's skin is red and wrinkled. Primitive breathing movements begin. A substance called surfactant is formed in the lungs. This substance helps the lungs to expand normally after the baby is born.

26 weeks

The baby's outline may be felt through the mother's abdomen. The eyes may be open now.
The Third Trimester

During the third trimester, or the last three months of pregnancy, the baby could survive if delivered before full term, but would need special care. The closer to full term, the more ready the baby is to cope with the birth process and to exchange the shelter of the uterus for life in the outside world.

28 weeks
35-37 cm (14 in)
1009 g (2 lb 5 oz)

The baby's body is still lean, but the skin is less wrinkled and red. The baby can now store iron, calcium, and other nutrients.

32 weeks
40-42 cm (16 in)
1800-2100 g
(4 lb -4 lb 7 oz)

The baby's skin is pink and smooths out as the fat forms under it. The baby develops a sense of taste. The baby becomes aware of sounds outside the mother's body. The make baby's testicles begin descent into the scrotum. The pupils in the baby's eyes can react to light.

36 weeks
45-47 cm (18 in)
2200 - 2900 g
(4 lb 11 oz - 6 lb 5 oz)

The baby's body is rounded and usually plump. The downy hair on the baby's body begins to disappear. The baby's blood has a high concentration of hemoglobin (this may occur as early as 28 weeks). The baby's skin is smooth, pink and covered with a greyish-white cheeselike substance (vernix). The baby continues to increase the store of maternal antibodies and thus, resist some diseases.

40 weeks
45-55 cm (18-22 in)
3200 g + (7 lb +)

Head hair is usually present. The testes of male babies are now in the scrotum, and the labia majora of female babies are now developed.

*Adapted from Baby’s Best Chance, 5th Edition, Province of BC

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Grade Six: Fetal Development (Overhead-Genetics)

Genetics – Sex Determination

Adapted from Sexuality: An Education Resource Book, Canada: Globe/Modem Curriculum Press, page 289

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Grade Six: Fetal Development (Overhead-Fraternal Twins)

Fraternal Twins

2 eggs
2 sperm

Different Chromosome

Separate Placenta

Girl and Boy

Girls
Boys

Possible Combinations

Adapted from Sexuality: An Education Resource Book, Canada: Globe/Modem Curriculum Press, page 302

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Identical Twins

Single Egg and Sperm

Divides

Identical Chromosome

Common Placenta

Girls

Boys

Adapted from Sameroff: An Educational Resource Book, Canada: Global/Modern Curriculum Press, page 391

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Pregnancy

- intestines
- amnionic sac
- amnionic fluid
- umbilical cord
- spine
- placenta
- tail bone
- cervix
- bladder
- vagina
- rectum
- anus

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