Reproductive Health Lesson Plan

This entire resource is available online at:
www.simcoemuskokahealth.org
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INTRODUCTION

The Reproductive Health Lesson Plan has been designed to cover the reproductive health content in the Ministry of Education’s Ontario Curriculum for Grades 11 and 12 Health and Physical Education, (2000) curriculum expectations. Multiple student activities have been developed to provide the teacher the flexibility to choose the activities that will best meet the student and teacher’s needs. The student activities have been linked to the curriculum expectations in a table for easy reference, and can be found on pages 4 to 6 of this document.

It is suggested that the Overview of the Reproductive System and How Conception Occurs sections be taught first, as they provide a refresher on the reproductive system and provide the context for the lesson. Following this, it is suggested that the Brainstorming activity, Did You Know? - Fact Sheet, and then the Reproductive Health Quiz be utilized. The Reproductive Health Quiz provides the foundation for the reproductive health information and other student activities.

The promotion of reproductive health contributes to the health of women and men and can positively impact the health of future pregnancies. Maintaining a healthy lifestyle throughout the reproductive years helps to prevent infant death, premature birth, low birth weight, and many birth defects. Over fifty percent of pregnancies in Canada are “unplanned”. A fetus can be subjected to a number of risk factors in the crucial two to eight weeks after conception, which is often before a woman realizes that she is pregnant.

Why should we promote reproductive health in high schools?

Most people require 3 exposures to new information before they really hear it. Therefore, it is important to offer reproductive health messages early and to repeat them often.

Benefits of reproductive health messages:

- Improved health through the life span
- Fewer infant deaths
- Decreased incidence of premature birth, low birth weight (LBW) and birth defects
- Decreased health care costs
CURRICULUM EXPECTATIONS

Healthy Active Living Education, Grade 11 Open (PPL30)

Overall Expectations – Healthy Living

By the end of this course, students will:
• Demonstrate an understanding of sexual and reproductive health.

Specific Expectations — Healthy Growth and Sexuality

By the end of this course, students will:

<table>
<thead>
<tr>
<th>Specific expectation</th>
<th>Component that fulfills the expectation</th>
</tr>
</thead>
</table>
| Describe factors (e.g., environmental, hormonal, nutritional) affecting reproductive health in males and females; | • Brainstorming Activity  
• Reproductive Health Quiz – gives the background information  
• Did You Know? - Fact Sheet  
• Reproductive Health Fill-in the Blank Activity  
• Factors Impacting Fertility, Pregnancy, and Birth Activity |
| Demonstrate an understanding of causes and issues related to infertility; | • Reproductive Health Quiz – gives the background information  
• Factors Impacting Fertility, Pregnancy, and Birth Activity |
| Describe sources of information and services related to sexual and reproductive health; | • Health Services and Resources Handout |
| Assess reproductive and sexual health care information and services. | • Health Services and Resources Assessment Activity  
• Health Services and Resources Handout |
Overall Expectations—Determinants of Health

By the end of this course, students will:

- Analyze the role of individual responsibility in enhancing personal health;
- Analyze the social factors that influence personal health.

Specific Expectations—Personal Factors

By the end of this course, students will:

<table>
<thead>
<tr>
<th>Specific expectation</th>
<th>Component that fulfills the expectation</th>
</tr>
</thead>
</table>
| Analyze how various lifestyle choices (e.g., decisions pertaining to nutrition, physical activity, and smoking) affect health; | - Reproductive Health Quiz – gives the background information  
- Reproductive Health Fill-in the Blank Activity  
- Social Determinants of Health Activity  
- Factors Impacting Fertility, Pregnancy, and Birth Activity  
- The Great Debate Activity |
| Explain how stress and one’s ability to cope with stress affect personal health;     | - Reproductive Health Quiz – gives the background information  
- Stress Activity  
- Stress Overheads and/or PowerPoint Presentation  
- Five Day Stress Journal Worksheet  
- Effects of Stress Worksheet |

Specific Expectations—Social Factors

By the end of this course, students will:

<table>
<thead>
<tr>
<th>Specific expectation</th>
<th>Component that fulfills the expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe how family, peers, and community influence personal health;</td>
<td>- Social Determinants of Health Activity</td>
</tr>
<tr>
<td>Analyze the social factors that influence personal health (e.g., employment, education, socio-economic status, isolation, rural and urban settings, access to health and recreational services);</td>
<td>- Social Determinants of Health Activity</td>
</tr>
</tbody>
</table>
Healthy Active Living Education, Grade 12 Open (PPL40)

Overall Expectations—Healthy Living

By the end of this course, students will:

- Demonstrate an understanding of strategies that promote personal safety and prevent injuries.

Specific Expectations—Healthy Growth and Sexuality

By the end of this course, students will:

<table>
<thead>
<tr>
<th>Specific expectation</th>
<th>Component that fulfills the expectation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the factors (e.g., healthful eating, abstinence from smoking and alcohol)</td>
<td>• <a href="#">Reproductive Health Quiz</a> — gives the background information</td>
</tr>
<tr>
<td>contribute to healthy pregnancy and birth;</td>
<td>• <a href="#">Reproductive Health Fill-in-the-Blank Activity</a></td>
</tr>
<tr>
<td></td>
<td>• <a href="#">Social Determinants of Health Activity</a></td>
</tr>
<tr>
<td></td>
<td>• <a href="#">Factors Impacting Fertility, Pregnancy, and Birth Activity</a></td>
</tr>
</tbody>
</table>
Overview of the Reproductive System Activity Outline

Purpose: An introductory activity to provide students with a review of the female and male reproductive systems.

Equipment Required: Diagrams of the Female and Male Reproductive Systems (in appendix) or Diagrams of the Female and Male Reproductive Systems – PowerPoint Presentation (on CD) Instructions

Time Required: 10 minutes

Instructions:

1. Discuss the following:
   - The male and female reproductive systems are composed of internal and external sexual organs.
   - These organs are controlled by sex hormones (testosterone in males, and estrogen and progesterone in females).
   - The pituitary gland (located in the brain) controls the release of the sex hormones. These hormones cause the physical and emotional changes that happen to your body during puberty.

2. Show the two diagrams of the female reproductive system and explain the following:
   - The internal and external sexual organs are: ovaries, cervix, uterus, fallopian tubes, and vagina.
   - Women are born with their eggs (ova) and the number of available eggs is fixed at birth.
   - The egg is released by the ovary approximately 14 days before the next menstrual period.
   - The egg then makes its way to the fallopian tube and is available for fertilization for the next 12-24 hours.
   - As the egg is released, the uterine wall thickens with extra blood and tissue to become a cushion for a potentially fertilized egg.
   - If the egg becomes fertilized, it attaches to the lining of the uterus where it will remain and slowly develop into a fetus.
   - If fertilization does not occur, the uterine lining and unfertilized egg are shed by the female body.
   - Menstruation is when the female body rids the extra blood and tissue from the uterine lining as well as the unfertilized egg. This cycle continues approximately every 28 days throughout the female reproductive years.

3. Show the diagram of the male reproductive system and explain the following:
   - The internal and external sexual organs are: penis, scrotum, epididymis, vas deferens, prostate, testes, and seminal vesicle.
   - Sperm production in males is a continuous process taking about 72 days. The testes contain a coiled tube about 100 meters long, and the cells within the coiled tube divide and mature to produce a continuous supply of sperm.
Diagrams of the Female and Male Reproductive Systems

Female Reproductive System
- Fallopian tube
- Uterus
- Cervix
- Vagina

Male Reproductive System
- Seminal vesicles
- Vas deferens
- Prostate gland
- Penis
- Epididymis
- Testicle
Purpose: An introductory activity to provide students with a review of how conception occurs.

Equipment Required: Instructions
Diagrams of How Conception Occurs (Optional – in appendix), or
Diagrams of How Conception Occurs - PowerPoint Presentation
(Optional – on CD)

Time Required: 5 minutes

Instructions:

1. Show the How Conception Occurs Pictures (Optional) and discuss the following information:
   - During intercourse seminal fluid (containing sperm) enters the vagina and makes its way to the cervix (opening of the uterus).
   - Sperm enter the cervical mucus, which acts as a nourishing reservoir, enabling the sperm the ability to survive for 3 to 4 days.
   - Sperm may reach the fallopian tube within 5 minutes of intercourse.
   - In the fallopian tube the sperm undergo chemical changes prior to fertilization.
   - Hundreds of sperm work together to penetrate the egg membrane.
   - Once a single sperm penetrates the egg membrane, other sperm are prevented from passing through the membrane to the egg.
   - The fertilized egg (zygote) stays in the fallopian tube for approximately 4 days and then is moved to the uterus and begins the process of implantation.
Diagrams of How Conception Occurs

**Process of Fertilization**
- an egg ripens
- the cervix opens and secretes fertile mucus
- intercourse can lead to conception

**Fertilization & Implementation**
- fertilization (conception)
- implantation
- the cervix closes and secretes ‘mesh mucus’ to seal the womb
- endometrium (food lining) develops
Brainstorming Activity Outline

**Purpose:** An introductory activity to assess the students' knowledge of reproductive health.

**Equipment Required:**
- Blackboard (optional)
- Flip chart paper (optional)
- Chalk or pens, as needed
- Instructions
- Did You Know? Fact Sheet

**Time Required:** 5 minutes

**Instructions:**

1. After discussing the Overview of the Reproductive System and the How Conception Occurs information, it is suggested that the brainstorming activity be utilized in order to assess the students' knowledge of reproductive health.

2. Have students quickly brainstorm ideas regarding factors that could influence their reproductive health. Hopefully the students will come up with some of the following:

   - Alcohol
   - Caffeine
   - Drugs
   - Education
   - Environment
   - Genetics
   - Friends and family
   - Folate/folic acid
   - Sexually transmitted infections (STI)
   - Healthy weights
   - Immunization status
   - Income
   - Medications
   - Physical activity (Exercise)
   - Tobacco products
   - Stress
   - Healthy eating (nutrition)

3. You can write the answers on the blackboard or flip chart paper.

4. If you would like to use the Did You Know? Fact sheet, you can hand it out at this time. It can be used as an introduction to why reproductive health is important.

5. It is suggested that the Reproductive Health Quiz be utilized next.
Did You Know? - Fact Sheet


- “Some studies have shown that as many as 50% of pregnancies are unplanned.” 11 Public Health Agency of Canada (August 2006). [http://www.phac-aspc.gc.ca/ccasn-rcsac/ccas/ct2006/consumption-consommation_e.html]

- “When pregnancies are unplanned, for whatever reason, the couple does not have the opportunity to assess and improve their health prior to conception.” 11;12 Best Start: Ontario’s Maternal, Newborn and Early Child Development Resource Centre. (2001) [http://www.beststart.org/resources/preconception/pdf/Preconception.pdf]

- “Infertility affects about 10% of otherwise healthy adults.” 13 (Wong and Perry, et. al., 2006, p.178)

- In Canada, over 40 percent of fertility problems are due to the female, 30 to 40 percent are due to the male, and 10 to 20 percent are unexplained. 14 (Norris, January 2001) [http://dsp-psd.pwgsc.gc.ca/Collection-R/LoPBdP/EB-e/prb0032-e.pdf]. Information and research clearly demonstrates the importance of healthy female and male reproductive systems for conception and positive birth outcomes.

- “Sperm is continuously produced. It takes about three months for sperm to fully develop and its quality may be affected by many factors during that time: heat, chemicals, recreational and prescription drugs, infections, etc.” 15 (Best Start, 2006). [http://www.beststart.org/resources/preconception/pdf/men_health.pdf]

- “The basic structure of all organ systems is established during the first 8 weeks of pregnancy. Teratogens [agents that cause birth defects] during this time period may cause major structural and functional damage to the developing organs.” 16 (Smith Murray and Slone McKinney, 2006)

- According to the Ontario Registrar General’s vital statistics live birth data, for Simcoe Muskoka, in 2004, 5.4% (or 256) of all live births born to Simcoe Muskoka mothers were considered low birth weight (weight < 2,500 grams or 5 lbs, 8 oz). This is lower than Ontario’s low birth weight rate of 5.9% (7,744 live births). 16;17 (Ontario Live Birth Data 2004, Provincial Health Planning Database (PHPDB) Extracted: June 2007, Ontario Ministry of Health and Long-Term Care)
Reproductive Health Quiz Outline

**Purpose:**
The purpose of the Reproductive Health Quiz is to provide students with reproductive health information. The teacher reference provides the key background information with the rationale of the true and false questions. The quiz forms the foundation of the Reproductive Health Lesson Plan.

**Equipment Required:**
- Reproductive Health Quiz (in appendix) for each student
- Teacher Reference for Reproductive Health Quiz
- Instructions

**Time Required:**
To be determined

**Instructions:**

1. Distribute the Reproductive Health Quiz to students. Allow time for the students to answer the questions as true or false by putting a check mark in the correct column.

2. Facilitate a class discussion on why each question is true or false, and provide students with the background information from the Teacher Reference for Reproductive Health Quiz.

3. Following the Reproductive Health Quiz, you can utilize any of the student activities to test or extend the students' learning.
# Reproductive Health Quiz

Please mark each statement as true or false by putting a checkmark in the correct column.

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>T</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The choices men make about their health can influence their ability to produce healthy sperm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>It is important to keep your immunizations up to date.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>A woman’s body weight can impact her fertility.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A woman’s body weight doesn’t affect the health of the fetus during pregnancy and birth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Women should avoid exercise when pregnant.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Folate (Folic Acid) is an important part of every woman’s diet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Women should limit their caffeine consumption when pregnant or planning on becoming pregnant.</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>Consuming fish containing high levels of mercury could harm a fetus’ developing nervous system.</td>
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<tr>
<td>9</td>
<td>All medications are safe to take during pregnancy.</td>
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<tr>
<td>10</td>
<td>Using street drugs can have a negative impact on one’s reproductive health and the health of a fetus.</td>
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<tr>
<td>11</td>
<td>When alcohol is consumed during pregnancy, an infant can be born with permanent brain damage.</td>
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<tr>
<td>12</td>
<td>Smoking tobacco can reduce fertility in women and men.</td>
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<tr>
<td>13</td>
<td>Using tobacco products or exposure to second hand smoke during pregnancy can harm a fetus.</td>
<td></td>
<td></td>
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<tr>
<td>14</td>
<td>The future health of a child can be affected by exposure to tobacco products during pregnancy.</td>
<td></td>
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<tr>
<td>15</td>
<td>Sexually transmitted infections (STIs) can cause infertility in both women and men.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Sexually transmitted infections (STIs) can affect the fetus during pregnancy and birth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Reproductive health is not affected by exposure to toxic substances in the environment.</td>
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<tr>
<td>18</td>
<td>During pregnancy, exposure to toxic substances in the environment can affect the development of a fetus.</td>
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</tr>
<tr>
<td>19</td>
<td>Exclusive breastfeeding is the healthiest way to feed an infant for the first six months.</td>
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<td></td>
</tr>
<tr>
<td>20</td>
<td>Stress can impact fertility.</td>
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</tr>
</tbody>
</table>
1. The choices men make about their health can influence their ability to produce healthy sperm.

TRUE

- Although most men will continue to produce sperm capable of creating a pregnancy, the quality of sperm produced may be affected by a number of factors, including:
  - Alcohol use
  - Tobacco use
  - Drug use
  - Exposure to toxic substances in the environment
  - Poor nutrition
  - STIs.

- Any of the above factors can increase the risk for having:
  - Abnormal sperm production
  - Decreased sperm production
  - Decreased sex drive
  - Increased likelihood of birth defects in a future child.
2. It is important to keep your immunizations up to date.

TRUE

- Once all of your childhood immunizations are completed, it is still suggested that you continue keeping your immunization record up to date.\(^{19}\)

- Certain vaccine preventable diseases can cause severe damage to a fetus if the mother comes in contact with the disease and is not vaccinated against the disease. These include:\(^{20}\)
  - Measles
  - Mumps
  - Rubella (German Measles)
  - Hepatitis B
  - Varicella (chickenpox).

- If a pregnant female becomes infected with a vaccine preventable disease and she is not vaccinated, the possible risks to the fetus are:\(^{20}\)
  - Premature birth
  - Miscarriage
  - Low birth weight
  - Stillbirth
  - Fetal anomalies (including congenital heart disease, cataracts, deafness, and mental disabilities, etc.).
3. **A woman’s body weight can impact her fertility.**

**TRUE**

- Too little or too much body fat (underweight or overweight) affects fertility.  

- Following *Eating well with Canada’s Food Guide* and being physically active every day are keys to maintaining a healthy body weight.  

**Underweight:**

- Women who have very low body fat and/or participate in vigorous physical activity may experience difficulty becoming pregnant due to the suppression of ovulation.  

**Overweight:**

- Potential health risks for women who are overweight are:
  - infertility
  - high risk pregnancies.

- Infertility in obese women is thought to be related to a sex hormone imbalance and menstrual problems and irregularities.
4. A woman’s body weight doesn’t affect the fetus during pregnancy and birth.

FALSE

Underweight:

- Women who have poor nutrition and are underweight prior to getting pregnant and have poor weight gain in pregnancy are at greater risk of having a preterm birth which could result in a low birth weight (LBW) infant.  
- LBW infants weigh less than 2500 grams (5 lb. 8 oz.) and are 20 times more likely to die compared to heavier weight newborns. 
- A LBW infant is at greater risk of having:  
  - “Learning difficulties
  - Vision difficulties
  - Chronic respiratory problems such as asthma
  - Cerebral palsy.”

Overweight:

- Women who are overweight are at a higher risk for poor health and pregnancy outcomes as compared to women who are a healthy weight. 
- Women who are overweight when they become pregnant are more likely to develop diabetes and high blood pressure during pregnancy.
- Diabetes prior to pregnancy (type 1 or type 2) and diabetes that develops during pregnancy (gestational diabetes mellitus) is associated with large for gestational age (LGA) infants.
- LGA infants weigh greater than 4000 grams (8 lb. 13 oz.) which places them at risk for: 
  - Injury or complications during birth (shoulder dystocia, etc.)
  - Perinatal death (miscarriage, stillbirth, death of an infant who is less than 7 days old)
  - Childhood/adult morbidity (illness and disease).
5. Women should avoid exercise when pregnant.

FALSE

- Regular physical activity is beneficial for both the pregnant woman and her developing fetus, and may also contribute to an easier labour and delivery.  

- Women who follow Canada’s physical activity recommendations before pregnancy will have an easier time maintaining regular physical activity during pregnancy.

- It is possible for women who lived a sedentary lifestyle before pregnancy to build physical activity into their daily routine by starting slowly and “gradually increasing the amount and intensity of activity.”

- Pregnant women should avoid strenuous activity which can overheat the fetus and can affect its growth and development.
6. Folate (Folic Acid) is an important part of every woman’s diet.

TRUE

- The Public Health Agency of Canada recommends that all women who could become pregnant take a multivitamin containing 0.4 mg of folic acid everyday. 32

- It is suggested that a multivitamin containing folic acid be taken for at least three months prior to getting pregnant and be continued throughout pregnancy and while breastfeeding. 32;33

- Folate is a B vitamin. It has two forms: the naturally occurring form found in food called folate, and the synthetic form known as folic acid. 33

- Folate/folic acid is essential to the normal development of the spine, brain and skull of the fetus, especially during the first four weeks of pregnancy. 32;33

- Folate/folic acid reduces the risk of a fetus developing neural tube defects which can result in:
  - Miscarriage
  - Stillbirth
  - Death in early childhood
  - Life-long disabilities.

- It is important to consume foods rich in folate such as: 32;33
  - Dark green vegetables
  - Dried peas, beans, and lentils
  - Nuts and seeds
  - Citrus fruits and juices
  - Enriched breads, rice, and pasta.
7. **Women should limit their caffeine consumption when pregnant or planning on becoming pregnant.**

**TRUE**

- Pregnant women should limit their caffeine consumption in order to reduce the harmful effects caffeine can have on the fetus. ³⁴

- The recommended maximum caffeine intake level for women of childbearing age is 300 mg per day. ³⁴,³⁵

- The following is a listing of the approximate amount of caffeine contained in commonly consumed products. ³⁵

<table>
<thead>
<tr>
<th>Product</th>
<th>Amount of caffeine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coffee – one 8 oz (237 ml) cup</td>
<td>approximately 150 mg</td>
</tr>
<tr>
<td>Tea – leaf or bag tea one 8 oz (237 ml) cup</td>
<td>approximately 50 mg</td>
</tr>
<tr>
<td>Regular Cola – one 12 oz (355 ml) can</td>
<td>between 36-46 mg</td>
</tr>
<tr>
<td>Milk Chocolate candy bar – 1 oz (28 gram) portion</td>
<td>approximately 7 mg</td>
</tr>
<tr>
<td>Dark Chocolate candy bar – 1 oz (28 gram) portion</td>
<td>approximately 19 mg</td>
</tr>
<tr>
<td>Energy drinks</td>
<td>unknown</td>
</tr>
</tbody>
</table>

Energy drinks often contain herbs such as guarana and yerba mate. It is important to know that the nutritional labels do not have to reflect caffeine that is naturally found in these herbs; therefore, the amount of caffeine indicated on the drink’s nutritional label can be less than what is actually being consumed.
8. Consuming fish containing high levels of mercury could harm a fetus’ developing nervous system.

TRUE

- It is advisable to be aware of the mercury content in the fish you consume so that you are not exposing yourself to high levels of mercury during the childbearing years.  

- Mercury is a toxic substance that passes through the placenta from mother to fetus, where it can cause irreversible neurological damage.

- *Eating well with Canada’s Food Guide* recommends at least 2 servings of fish per week. Fish is a rich source of protein and omega-3 fatty acids that are essential for the development of vision, the brain, and nerves of a fetus.

- There are fish that contain low levels of mercury and can be eaten on a daily basis. A few of these are:
  - Pollock
  - Salmon (Chum, Coho, Pink, Canned, Wild Pacific)
  - Tilapia.

- Some sport fish found in local lakes and rivers contain high levels of mercury and should be avoided. It is best to refer to the current Ministry of the Environment’s *Guide to Eating Ontario Sport Fish* for sport fish consumption advice.
9. All medications are safe to take during pregnancy.

FALSE

- There are two types of medications:  
  - Over-the-counter (OTC) medications including non-prescribed medications, vitamins, and herbal supplements, and  
  - Prescribed medications including medications that your health care provider orders for you (a prescription is required).

- Medications that are safe for a woman may not be safe for a developing fetus.  

- If a woman is taking medications and she is or could be pregnant, she should inform and/or speak to her health care provider or pharmacist immediately.  

- Please refer to question number 10 for information on street drugs.
10. Using street drugs has a negative impact on one’s reproductive health and the health of a fetus.

TRUE

• Many drugs cause long term damage to both sperm and eggs which impacts on fertility. 12

• Even if the woman or man stop taking drugs before they conceive, the drugs can still be in their system and can have an effect on the health of the fetus. 41

• In a pregnant woman, drugs have the ability to increase the risk of: 12,42
  - Miscarriage
  - Fetal death
  - Premature birth
  - Birth complications and defects
  - Low birth weight infant
  - Neurological and developmental disabilities
  - Respiratory problems.
11. When alcohol is consumed during pregnancy, an infant can be born with permanent brain damage.

**TRUE**

- There is **NO** safe amount and **NO** safe time during pregnancy to drink alcohol. 43
- Abstaining from consuming alcohol is the only way to ensure that an infant’s development is not affected by alcohol. 43
- Alcohol is the most preventable cause of mental disabilities in children and can cause many permanent, life-long disabilities in children. 44
- Alcohol includes wine, coolers, beer and hard-liquor. 43
- Alcohol can also be found in some products and foods.
- Alcohol can affect a fetus by causing: 45
  - Prenatal growth restriction
  - Stillbirth
  - Miscarriages.
- Alcohol can affect an infant by causing: 46
  - Fetal alcohol spectrum disorder (FASD) which is characterized by mental disabilities, delayed motor development, low birth weight, and facial abnormalities
  - Learning and behavioural problems
  - Developmental delays
  - Attention difficulties
  - Growth restriction.
12. Smoking tobacco can reduce fertility in women and men.

TRUE

- Smoking tobacco has been linked to reduced fertility in women and men. 10;47;48
- Exposure to second hand smoke can have the same effect as smoking cigarettes. 40

Women:

- The chemicals in tobacco smoke are hazardous to the female reproductive system and can impact a woman's fertility. 49
- Studies have shown that women who smoke more than 20 cigarettes per day have their fertility reduced by 22% when compared to women who do not smoke. 47

Men:

- Smoking tobacco increases the risk of:
  - Poor sperm motility 48
  - Poor sperm counts 48
  - Abnormal sperm shape 47
  - Difficulty fertilizing the egg. 18
13. Using tobacco products or exposure to second hand smoke during pregnancy can harm a fetus.

**TRUE**

- Smoking tobacco or exposure to second hand smoke during pregnancy has been linked to: ⁴⁰,⁴⁸
  - Problems with the placenta
  - A higher chance of miscarriage
  - Labour and birth complications
  - Premature birth
  - Low birth weight infant
  - Loss of the infant during birth.

- The negative effects appear to increase with the amount of tobacco smoke inhaled, either directly by the woman or indirectly as a result of second hand smoke. ⁵⁰ For example:
  - There is “1.5 times greater risk of spontaneous abortion [miscarriage] if a mother smokes 1-10 cigarettes/day.”
  - If a mother smokes during pregnancy, there is “1.8 – 2.4 times greater risk of having a lower birth weight baby (150 – 200 g less).”

- Quitting smoking does not cause stress for a fetus. Quitting at any time during pregnancy will reduce the negative impacts on the fetus. ⁴⁰

- Not only is exposure to tobacco smoke a concern, it has been shown that smokeless tobacco (chew/dip, snuff, snus, spit, etc.) use is associated with: ⁵¹
  - Reduced birth weight
  - Reduced gestational age.
14. The future health of a child can be affected by exposure to tobacco products during pregnancy.

TRUE

- There is evidence that children who have been exposed to tobacco smoke during pregnancy have increased chances of: 40;48;50;52
  - Low birth weight
  - Stillbirth
  - SIDS (Sudden Infant Death Syndrome or crib death)
  - Having respiratory infections (Bronchitis, Asthma, pneumonia, etc.)
  - Having ear infections
  - Developing allergies
  - Being cranky or colicky as infants
  - Difficulties with reading and math skills.
15. Sexually transmitted infections (STIs) can cause infertility in both women and men.

TRUE

- Some STIs can cause infertility in women and men.⁵³

- STIs are infections passed from one person to another through:⁴⁰,⁵⁴
  - Sexual contact (anal, vaginal, or oral sex)
  - Contact with body fluids (blood, urine, feces, saliva, etc.)
  - Sharing of drug related equipment (syringes, needles, etc.).

- Many STIs do not show signs and symptoms, and therefore people are not aware of having or sharing them.⁴⁰,⁵⁵

- Chlamydia is currently the most commonly reported STI among youth, although syphilis is increasing in prevalence among men.⁵⁶,⁵⁷

- It is important for all women and men to have regular physical exams and request that their health care provider test them and their partner(s) for STIs (especially when entering a new relationship).⁴⁰,⁵⁴

- Being abstinent, and avoiding any intimate skin to skin contact and bodily fluids can reduce the chance of transmitting or becoming infected with an STI.⁵⁷

- Individuals need to protect themselves from becoming infected with an STI.

Women:

- Seventy percent of women do not exhibit symptoms associated with STIs.⁵⁴

- Some untreated STIs, like chlamydia and gonorrhea, may damage a woman’s fallopian tubes, which can make it difficult for a woman to get pregnant.⁴⁰

- An HPV infection increases the risk of a woman developing cervical cancer by 20 to 100 times, and cervical cancer can result in infertility.⁵⁸

Men:

- Fifty percent of males do not exhibit symptoms associated with STIs.⁵⁴

- In men, long-term chlamydia and gonorrhea infections can cause infertility.⁵⁴
16. Sexually transmitted infections (STIs) can affect the fetus during pregnancy and birth.

TRUE

- Some STIs can cause:
  - Fetal death
  - Malformations
  - Brain damage
  - Low birth weight
  - Premature birth
  - Eye problems
  - Hearing problems.

- An infected mother can pass a STI to the fetus during pregnancy, to the infant during childbirth, or to the infant while breastfeeding.

- If a woman is pregnant and has chlamydia or gonorrhea she can pass the infection to her infant during birth. These STIs can result in severe eye, ear, or lung infections for the infant.

- The human immunodeficiency virus (HIV) is a STI that can be passed to a fetus. However, if the woman obtains treatment prior to or early in pregnancy she can decrease the risk of transmitting HIV to the developing fetus.
17. Reproductive health is not affected by exposure to toxic substances in the environment.

FALSE

- Exposure to toxic substances can interfere with the female and male reproductive systems.\(^6\)

- Reproductive disorders in men and women can result from: \(^6\)
  - Their parent’s exposure to toxic substances prior to conception
  - Exposure to toxic substances as a fetus (prenatally), during childhood, during adolescence, and/or during adulthood.

- Exposure to toxic substances can happen indoors and outdoors through air, dust, soil, food, water and consumer products. Some examples of toxic substances are: \(^6\)
  - Mercury
  - Lead
  - Industrial chemicals
  - Pesticides
  - Radiation
  - Air pollution
  - Asbestos
  - Mould
  - Arsenic
  - Chemicals found in some plastics.

Women:

- Exposure to toxic substances can: \(^6\)
  - Affect the formation of the ovaries and eggs in a developing female fetus
  - Affect the onset of puberty
  - Affect the onset and cause irregularities in menstrual cycles
  - Decrease fertility.

Men:

- Exposure to toxic substances can: \(^6\)
  - Affect sperm count and shape
  - Decrease fertility.
18. During pregnancy, exposure to toxic substances in the environment can affect the development of a fetus.

TRUE

- The time of greatest impact of exposure to toxic substances in the environment is during fetal development.  

- When a pregnant woman is exposed to toxic substances in her environment, these toxic substances can cross the placenta and affect the development of a fetus.  

- To limit fetal exposure to toxic substances, pregnant women should:  
  - Avoid doing renovations and being exposed to the dust from renovations (Exposure to toxic substances such as dust oil paints, solvents, varnishes, glues, degreasers and paint strippers, can occur during home renovations)  
  - Avoid eating fish high in mercury  
  - Choose organic foods when possible  
  - Choose cleaning products and pest control methods that are non-toxic  
  - Avoid x-rays and replacement of mercury fillings when possible.  

- Fetal exposure to the toxic substances in the environment can result in:  
  - Miscarriage  
  - Stillbirth  
  - Preterm birth  
  - Low birth weight  
  - Birth defects  
  - Chromosomal abnormalities  
  - Cerebral palsy  
  - Visual and hearing problems  
  - Asthma  
  - Biological dysfunctions  
  - Impaired brain functioning  
  - Learning difficulties  
  - Behavioural and/or psychological problems  
  - Childhood or later cancers.  

- It is important to note that some fetal affects of exposures to toxic substances in the environment may not be noticed or diagnosed until later in life.  

19. **Exclusive breastfeeding is the healthiest way to feed an infant for the first six months.**

**TRUE**

- Breast milk provides the best nutrition for infants for the first 6 months at which time the introduction of solid foods begins. Breastfeeding continues to provide excellent nutrition for an infant up to 2 years and beyond. 45

- Breastfeeding is the healthiest way to feed an infant, not only for the infant’s health, but also the mother’s health and the health of the family. 45,64

- **Risks of not breastfeeding include:**
  - Loss of protection from illnesses and diseases (i.e. ear infections, lung infections, chronic diseases, allergies, asthma, heart disease, obesity, childhood cancers, diabetes) for the infant 65
  - Loss of protection from various cancers and osteoporosis for the mother 66
  - Increased risk of illness and injury of the infant due to human error throughout the formula production process (missing ingredients and/or contaminated with germs) 67
  - Increased risk of over or under nutrition for the developing infant due to improper preparation of formula 67
  - Increased negative impact on the environment due to the manufacturing, distribution, and disposal of artificial feeding products (formula, cans, bottles, nipples, etc.). 67

<table>
<thead>
<tr>
<th><strong>Breastfeeding is best for infants because it:</strong> 64</th>
<th><strong>Breastfeeding is best for mothers because it:</strong> 64</th>
<th><strong>Breastfeeding is best for families because it:</strong> 64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is human milk for human infants</td>
<td>Promotes closeness and bonding of mother and infant</td>
<td>Saves time – breast milk is always fresh and ready</td>
</tr>
<tr>
<td>Helps to prevent constipation</td>
<td>Helps to control bleeding after birth</td>
<td>Saves money</td>
</tr>
<tr>
<td>Helps to protect against childhood diabetes and childhood obesity</td>
<td>Helps the uterus to return to its normal size after birth</td>
<td>It is the environmentally-friendly choice as it does not produce any garbage</td>
</tr>
<tr>
<td>Helps to protect against ear, chest and stomach infections</td>
<td>Helps to protect against breast cancer and ovarian cancer</td>
<td></td>
</tr>
<tr>
<td>Helps to protect against allergies and asthma</td>
<td>Helps to keep bones strong</td>
<td></td>
</tr>
<tr>
<td>Helps to protect against Sudden Infant Death Syndrome (SIDS)</td>
<td>Helps with weight loss after birth</td>
<td></td>
</tr>
<tr>
<td>Helps to prevent tooth decay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May lead to smarter children</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

May lead to smarter children
20. Stress can impact fertility.

TRUE

- Stress is a natural response of our bodies to any demands or challenges put upon the body throughout our lives.³

- Stress may be experienced as positive or negative and will be interpreted and responded to differently by each individual person.⁶⁸

- In women, stress impacts fertility by changing when the eggs are released and may alter the normal pattern of menstruation.⁶⁸

- In men, stress impacts fertility by creating hormonal changes that may alter sperm production.⁶⁸
Reproductive Health Fill-in-the-Blank Activity Outline

**Purpose:** To assess the student’s ability to describe the factors affecting reproductive health and the factors that contribute to a healthy pregnancy and birth. It will also help the students analyze how various lifestyle choices affect health.

**Equipment Required:** Background knowledge of the Reproductive Health Quiz
Reproductive Health Fill-in-the-blank Worksheet (in appendix)
Reproductive Health Fill-in-the-blank Answer page

**Time Required:** To be determined

**Instructions:**

1. It is suggested that students understand the background knowledge of the Reproductive Health Quiz prior to utilizing this activity.

2. Hand out a fill-in-the-blank worksheet to each student and give them time to complete the worksheet.

3. Students can hand in the worksheet to have it graded or can exchange with classmates and grade the worksheet with the class.
Reproductive Health Fill-in-the-Blank Worksheet

Student’s Name ______________________ Date _____________________

Please complete the following fill in the blank statements.

1. The chemicals in tobacco smoke are hazardous to the female reproductive system and can impact a woman’s __________.

2. Medications that are safe for a woman may not be safe for a developing __________.

3. ____________ is essential to the normal development of the spine, brain and skull of the fetus, especially during the first four weeks of pregnancy.

4. Some STIs can cause ____________ in women and men.

5. Regular ____________ is beneficial for both the pregnant woman and the developing fetus, and may also contribute to an easier labour and birth.

6. In women, ____________ alters fertility by changing when the eggs are released and may alter the normal pattern of menstruation.

7. Women should limit their ____________ consumption when pregnant or planning on becoming pregnant.

8. When a pregnant woman is exposed to toxic substances in her environment, these toxic substances can cross the ____________ and affect the development of the fetus.

9. Maternal ____________ can affect the fetus during pregnancy and birth.

10. There is NO safe amount and NO safe time during pregnancy to drink ____________.

11. Exclusive ____________ is the healthiest way to feed and infant for the first six months.

12. Consuming fish containing high levels of ____________ could harm a fetus’ developing nervous system.

13. The negative effects on the fetus appear to increase with the amount of ____________ inhaled, either directly by the woman or indirectly as a result of second hand smoke.

14. Many ____________ cause long term damage to both sperm and eggs which impacts on fertility.

15. Certain vaccine preventable ____________ can cause severe damage to a fetus if the mother comes in contact with the disease and is not vaccinated against the disease.

<table>
<thead>
<tr>
<th>weight</th>
<th>smoke</th>
<th>diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>mercury</td>
<td>caffeine</td>
<td>infertility</td>
</tr>
<tr>
<td>drugs</td>
<td>alcohol</td>
<td>fetus</td>
</tr>
<tr>
<td>physical activity</td>
<td>fertility</td>
<td>stress</td>
</tr>
<tr>
<td>breastfeeding</td>
<td>Folate/folic acid</td>
<td>placenta</td>
</tr>
</tbody>
</table>
The correct answers are underlined and bolded.

1. The chemicals in tobacco smoke are hazardous to the female reproductive system and can impact a woman's **fertility**.

2. Medications that are safe for a woman may not be safe for a developing **fetus**.

3. **Folate/folic acid** is essential to the normal development of the spine, brain and skull of the fetus, especially during the first four weeks of pregnancy.

4. Some STIs can cause **infertility** in women and men.

5. Regular **physical activity** is beneficial for both the pregnant woman and the developing fetus, and may also contribute to an easier labour and birth.

6. In women, **stress** alters fertility by changing when the eggs are released and may alter the normal pattern of menstruation.

7. Women should limit their **caffeine** consumption when pregnant or planning on becoming pregnant.

8. When a pregnant woman is exposed to toxic substances in her environment, these toxic substances can cross the **placenta** and affect the development of the fetus.

9. Maternal **weight** can affect the fetus during pregnancy and birth.

10. There is **NO** safe amount and **NO** safe time during pregnancy to drink **alcohol**.

11. Exclusive **breastfeeding** is the healthiest way to feed and infant for the first six months.

12. Consuming fish containing high levels of **mercury** could harm a fetus' developing nervous system.

13. The negative effects appear to increase with the amount of **smoke** inhaled, either directly by the woman or indirectly as a result of second hand smoke.

14. Many **drugs** cause long term damage to both sperm and eggs which impacts on fertility.

15. Certain vaccine preventable **diseases** can cause severe damage to a fetus if the mother comes in contact with the disease and is not vaccinated against the disease.
Factors Impacting Fertility, Pregnancy, and Birth Activity

Factors Impacting Fertility, Pregnancy, and Birth Activity Outline

Purpose: To assist students in demonstrating an understanding of the causes and issues related to fertility, describing factors affecting reproductive health in females and males, and analyzing how various lifestyle choices affect health.

Equipment Required: Background knowledge of Reproductive Health Quiz
Factors Impacting Fertility, Pregnancy, and Birth Worksheet (in appendix)
Factors Impacting Fertility, Pregnancy, and Birth Answer Sheet

Time Required: To be determined

Instructions:

1. It is suggested that students understand the background knowledge of the Reproductive Health Quiz prior to utilizing this activity.

2. Distribute the Factors Impacting Fertility, Pregnancy, and Birth worksheet to the class.

3. Assign a factor for each student and ask them to describe the effect of the factor and how it impacts on fertility, pregnancy, and birth. Please note that not all factors will have impacts on fertility, pregnancy, and birth, and the Answer sheet may have more information than you will require the students to include.

4. Once students have completed their summary of the factor and its impact, have them report back to the class. Students can record the information for their notes.
## Factors Impacting Fertility, Pregnancy, and Birth Worksheet

Describe how the factor impacts on fertility, pregnancy, and birth.

<table>
<thead>
<tr>
<th>Factor</th>
<th>How the factor impacts fertility, pregnancy, and birth.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td></td>
</tr>
<tr>
<td>Medications</td>
<td></td>
</tr>
<tr>
<td>Street Drugs</td>
<td></td>
</tr>
<tr>
<td>Sexually Transmitted Infections</td>
<td></td>
</tr>
<tr>
<td>Body Weight</td>
<td></td>
</tr>
<tr>
<td>Exercise</td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td></td>
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<tr>
<td>Breastfeeding</td>
<td></td>
</tr>
<tr>
<td>Mercury in Fish</td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td></td>
</tr>
<tr>
<td>Immunizations</td>
<td></td>
</tr>
</tbody>
</table>
## Factors Impacting Fertility, Pregnancy, and Birth Answer Sheet

Describe how the factor impacts on fertility, pregnancy, and birth.

<table>
<thead>
<tr>
<th>Factor</th>
<th>How the factor impacts fertility, pregnancy, and birth.</th>
</tr>
</thead>
</table>
| Tobacco      | • Smoking tobacco has been linked to reduced fertility in women and men.  
              |   • Exposure to second hand smoke can have the same effect as smoking cigarettes.  
              |   • For women, the chemicals in tobacco smoke are hazardous to the female reproductive system and can impact a woman’s fertility.  
              |   • For women, studies have shown that women who smoke more than 20 cigarettes per day have their fertility reduced by 22% when compared to women who do not smoke.  
              |   • For men, smoking tobacco increases the risk of:  
              |     - Poor sperm motility  
              |     - Poor sperm counts  
              |     - Abnormal sperm shape  
              |     - Difficulty fertilizing the egg.  
              |   • There is evidence that children who have been exposed to tobacco smoke during pregnancy have increased chances of:  
              |     - Low birth weight  
              |     - Stillbirth  
              |     - SIDS (Sudden Infant Death Syndrome or crib death)  
              |     - Having respiratory infections (Bronchitis, Asthma, pneumonia, etc.)  
              |     - Having ear infections  
              |     - Developing allergies  
              |     - Being cranky or colicky as infants  
              |     - Difficulties with reading and math skills.  
              |   • Smoking tobacco or exposure to second hand smoke during pregnancy has been linked to:  
              |     - Problems with the placenta  
              |     - A higher chance of miscarriage  
              |     - Labour and birth complications  
              |     - Premature birth  
              |     - Low birth weight infant  
              |     - Loss of the infant during birth.  
              |   • The negative effects appear to increase with the amount of tobacco smoke inhaled, either directly by the woman or indirectly as a result of second hand smoke.  
              |   - There is “1.5 times greater risk of spontaneous abortion [miscarriage] if a mother smokes 1-10 cigarettes/day.”  
              |   - If a mother smokes during pregnancy, there is “1.8 – 2.4 times greater risk of having a lower birth weight baby (150 – 200 g less).” |
• Quitting smoking does not cause stress for a fetus. Quitting at any time during pregnancy will reduce the negative impacts on the fetus.  

• Not only is exposure to tobacco smoke a concern, it has been shown that smokeless tobacco (chew/dip, snuff, snus, spit, etc.) use is associated with: 
  - Reduced birth weight 
  - Reduced gestational age.

### Medications

• There are two types of medications: 
  - Over-the-counter (OTC) medications including non-prescribed medications, vitamins, and herbal supplements, and 
  - Prescribed medications including medications that your health care provider orders for you (a prescription is required).

• Medications that are safe for a woman may not be safe for a developing fetus.

• If a woman is taking medications and she is or could be pregnant, she should inform and/or speak to her health care provider or pharmacist immediately.

### Street Drugs

• Many drugs cause long term damage to both sperm and eggs which impacts on fertility.

• Even if the woman or man stop taking drugs before they conceive, the drugs can still be in their system and can have an effect on the health of the fetus.

• In a pregnant woman, drugs have the ability to increase the risk of: 
  - Miscarriage 
  - Fetal death 
  - Premature birth 
  - Birth complications and defects 
  - Low birth weight infant 
  - Neurological and developmental disabilities 
  - Respiratory problems.
Sexually Transmitted Infections

- Some STIs can cause infertility in women and men. 53
- STIs are infections passed from one person to another through: 40,54
  - Sexual contact (anal, vaginal, or oral sex)
  - Contact with body fluids (blood, urine, feces, saliva, etc.)
  - Sharing of drug related equipment (syringes, needles, etc.).
- Many STIs do not show signs and symptoms, and therefore people are not aware of having or sharing them. 40,55
- Chlamydia is currently the most commonly reported STI among youth, although syphilis is increasing in prevalence among men. 56,57
- It is important for all women and men to have regular physical exams and request that their health care provider test them and their partner(s) for STIs (especially when entering a new relationship). 40,54
- Being abstinent, and avoiding any intimate skin to skin contact and bodily fluids can reduce the chance of transmitting or becoming infected with an STI. 57
- Individuals need to protect themselves from becoming infected with an STI.
- Some STIs can cause: 12,59
  - Fetal death
  - Malformations
  - Brain damage
  - Low birth weight
  - Premature birth
  - Eye problems
  - Hearing problems.
- An infected mother can pass a STI to the fetus during pregnancy, to the infant during childbirth, or to the infant while breastfeeding. 40,59
- If a woman is pregnant and has Chlamydia or gonorrhea she can pass the infection to her infant during birth. These STIs can result in severe eye, ear, or lung infections for the infant. 60,61
- The human immunodeficiency virus (HIV) is a STI that can be passed to a fetus. However, if the woman obtains treatment prior to or early in pregnancy she can decrease the risk of transmitting HIV to the developing fetus. 12

Women:
- Seventy percent of women do not exhibit symptoms associated with STIs. 54
- Some untreated STIs, like chlamydia and gonorrhea, may damage a woman’s fallopian tubes, which can make it difficult for a woman to get pregnant. 40
- A HPV infection increases the risk of a woman developing cervical cancer by 20 to 100 times, and cervical cancer can result in infertility. 58

Men:
- Fifty percent of males do not exhibit symptoms associated with STIs. 54
- In men, long-term chlamydia and gonorrhea infections can cause infertility. 54
**Body Weight**

**Underweight:**
- Women who have poor nutrition and are underweight prior to getting pregnant and have poor weight gain in pregnancy are at greater risk of having a preterm birth which could result in a low birth weight (LBW) infant.  

  23

- Low birth weight infants weigh less than 2500 grams (5 lb. 8 oz.) and are 20 times more likely to die compared to heavier weight newborns.  

  24

- A low birth weight infant is at greater risk of having:
  - "Learning difficulties
  - Vision difficulties
  - Chronic respiratory problems such as asthma
  - Cerebral palsy."  

  25

- Women who have very low body fat and/or participate in vigorous physical activity may experience difficulty becoming pregnant due to the suppression of ovulation.  

  12

**Overweight:**
- Women who are overweight are at a higher risk for poor health and pregnancy outcomes as compared to women who are a healthy weight.  

  26

- Women who are overweight when they become pregnant are more likely to develop diabetes and high blood pressure during pregnancy.  

  27

- Diabetes prior to pregnancy (type 1 or type 2) and diabetes that develops during pregnancy (gestational diabetes mellitus) is associated with large for gestational age (LGA) infants.  

  27

- LGA infants weigh greater than 4000 grams (8 lb. 13 oz.) which places them at risk for:  

  26;29

  - Injury or complications during birth (shoulder dystocia, etc.)
  - Perinatal death (miscarriage, stillbirth, death of an infant who is less than seven days old).
  - Childhood/adult morbidity (illness and disease).

- Potential health risks for women who are overweight are:  

  21

  - Infertility
  - High risk pregnancies.

- Infertility in obese women is thought to be related to a sex hormone imbalance and menstrual problems and irregularities.  

  22
Exercise

- Regular physical activity is beneficial for both the pregnant woman and her developing fetus, and may also contribute to an easier labour and birth.  
- Women who follow Canada's physical activity recommendations before pregnancy will have an easier time maintaining regular physical activity during pregnancy.
- It is possible for women who lived a sedentary lifestyle before pregnancy to build physical activity into their daily routine by starting slowly and “gradually increasing the amount and intensity of activity”.
- Pregnant women should avoid strenuous activity which can overheat the fetus and can affect its growth and development.

Stress

- Stress is a natural response of our bodies to any demands or challenges put upon the body throughout our lives.
- Stress may be experienced as positive or negative and will be interpreted and responded to differently by each individual person.
- In women, stress impacts fertility by changing when the eggs are released and may alter the normal pattern of menstruation.
- In men, stress impacts fertility by creating hormonal changes that may alter sperm production.

Environment

- Exposure to toxic substances can interfere with the female and male reproductive systems.
- Reproductive disorders in men and women can result from:
  - Their parent’s exposure to toxic substances prior to conception
  - Exposure to toxic substances as a fetus (prenatally), during childhood, during adolescence, and/or during adulthood.
- Exposure to toxic substances can happen indoors and outdoors through air, dust, soil, food, water and consumer products. Some examples of toxic substances are:
  - Mercury
  - Lead
  - Industrial chemicals
  - Pesticides
  - Radiation
  - Air pollution
  - Asbestos
  - Mould
  - Arsenic
  - Chemicals found in some plastics.
- It is important to note that some fetal affects of exposures to toxic substances in the environment may
not be noticed or diagnosed until later in life.  

Women:
- Exposure to toxic substances can:  
  - Affect the formation of the ovaries and eggs in a developing female fetus  
  - Affect the onset of puberty  
  - Affect the onset and cause irregularities in menstrual cycles  
  - Decrease fertility.  
- The time of greatest impact of exposure to toxic substances in the environment is during fetal development.  
- When a pregnant woman is exposed to toxic substances in her environment, these toxic substances can cross the placenta and affect the development of a fetus.  
- To limit fetal exposure to toxic substances, pregnant women should:  
  - Avoid doing renovations and being exposed to the dust from renovations (Exposure to toxic substances such as dust oil paints, solvents, varnishes, glues, degreasers and paint strippers, can occur during home renovations)  
  - Avoid eating fish high in mercury  
  - Choose organic foods when possible  
  - Choose cleaning products and pest control methods that are non-toxic  
  - Avoid x-rays and replacement of mercury fillings when possible.  
- Fetal exposure to the toxic substances in the environment can result in:  
  - Miscarriage  
  - Stillbirth  
  - Preterm birth  
  - Low birth weight  
  - Birth defects  
  - Chromosomal abnormalities  
  - Cerebral palsy  
  - Visual and hearing problems  
  - Asthma  
  - Biological dysfunctions  
  - Impaired brain functioning  
  - Learning difficulties  
  - Behavioural and/or psychological problems  
  - Childhood or later cancers.  

Men:
- Exposure to toxic substances can:  
  - Affect sperm count and shape  
  - Decrease fertility.
Alcohol

- There is **NO** safe amount and **NO** safe time during pregnancy to drink alcohol.  
- Abstaining from consuming alcohol is the only way to ensure that an infant's development is not affected by alcohol.  
- Alcohol is the most preventable cause of mental disabilities in children and can cause many permanent, life-long disabilities in children.  
- Alcohol includes wine, coolers, beer and hard-liquor.  
- Alcohol can also be found in some products and foods.  
- Alcohol can affect a fetus by causing:
  - Prenatal growth restriction
  - Stillbirth
  - Miscarriages.
- Alcohol can affect an infant by causing:
  - Fetal alcohol spectrum disorder (FASD) which is characterized by mental disabilities, delayed motor development, low birth weight, and facial abnormalities
  - Learning and behavioural problems
  - Developmental delays
  - Attention difficulties
  - Growth restriction.

Breastfeeding

- Breast milk provides the best nutrition for infants for the first 6 months at which time the introduction of solid foods begins. Breastfeeding continues to provide excellent nutrition for an infant up to 2 years and beyond.  
- Breastfeeding is the healthiest way to feed an infant, not only for the infant’s health, but also the mother’s health, and the health of the family.  
- Risks of not breastfeeding include:
  - Loss of protection from illnesses and diseases (i.e. ear infections, lung infections, chronic diseases, allergies, asthma, heart disease, obesity, childhood cancers, diabetes) for the infant  
  - Loss of protection from various cancers and osteoporosis for the mother  
  - Increased risk of illness and injury of the infant due to human error throughout the formula production process (missing ingredients and/or contaminated with germs)  
  - Increased risk of over or under nutrition for the developing infant due to improper preparation of formula  
  - Increased negative impact on the environment due to the manufacturing, distribution, and disposal of artificial feeding products (formula, cans, bottles, nipples, etc.).
**Mercury in Fish**

- It is advisable to be aware of the mercury content in the fish you consume so that you are not exposing yourself to high levels of mercury during the childbearing years.  

- Mercury is a toxic substance that passes through the placenta from mother to fetus, where it can cause irreversible neurological damage.

- *Eating well with Canada’s Food Guide* recommends at least 2 servings of fish per week. Fish is a rich source of protein and omega-3 fatty acids that are essential for the development of vision, the brain, and nerves of a fetus.

- There are fish that contain low levels of mercury and can be eaten on a daily basis. A few of these are:
  - Pollock
  - Salmon (Chum, Coho, Pink, Canned, Wild Pacific)
  - Tilapia.

- Some sport fish found in local lakes and rivers contain high levels of mercury and should be avoided. It is best to refer to the current Ministry of the Environment’s *Guide to Eating Ontario Sport Fish* for sport fish consumption advice.

**Nutrition**

- The Public Health Agency of Canada recommends that all women who could become pregnant take a multivitamin containing 0.4 mg of folic acid everyday.

- It is suggested that a multivitamin containing folic acid be taken for at least three months prior to getting pregnant and be continued throughout pregnancy and while breastfeeding.

- Folate is a B vitamin. It has two forms: the naturally occurring form found in food called folate, and the synthetic form known as folic acid.

- Folate/folic acid is essential to the normal development of the spine, brain and skull of the fetus, especially during the first four weeks of pregnancy.

- Folate/folic acid reduces the risk of a fetus developing neural tube defects which can result in:
  - Miscarriage
  - Stillbirth
  - Death in early childhood
  - Life-long disabilities.

- It is important to consume foods rich in folate such as:
  - Dark green vegetables
  - Dried peas, beans, and lentils
  - Nuts and seeds
  - Citrus fruits and juices
  - Enriched breads, rice, and pasta.

- Pregnant women should limit their caffeine consumption in order to reduce the harmful effects caffeine can have on the fetus.

- The recommended maximum caffeine intake level for women of childbearing age is 300 mg per day.
## Immunizations

- Once all of your childhood immunizations are completed, it is still suggested that you continue keeping your immunization record up to date.  

- Certain vaccine preventable diseases can cause severe damage to a fetus if the mother comes in contact with the disease and is not vaccinated against the disease. These include:
  - Measles
  - Mumps
  - Rubella (German Measles)
  - Hepatitis B
  - Varicella (chickenpox).

- If a pregnant female becomes infected with a vaccine preventable disease and she is not vaccinated, the possible risks to the fetus are:
  - Premature birth
  - Miscarriage
  - Low birth weight
  - Stillbirth
  - Fetal anomalies (including congenital heart disease, cataracts, deafness, and mental disabilities, etc.).
Health Services and Resources Assessment Activity Outline

**Purpose:** To assist students in describing and assessing sources of health care information and services related to sexual and reproductive health. The students will develop a list of local community resources and services for the class.

**Equipment Required:**
- Health Services and Resources Handout (in appendix)
- Health Services and Resources Worksheet (in appendix)
- Website Credibility Handout (in appendix)
- Phone or Internet access

**Time Required:** To be determined

**Instructions:**

1. Distribute the Health Services and Resources Handout to the class. From the handout, assign students a certain number of health resources and services to research and ask them to research at least one health resource or service that is not included on the student handout.

2. Students are to record their information on the Health Services and Resources worksheet.

3. Once students have completed their Health Services and Resources Worksheets, have them report back to the class.

4. Facilitate a discussion on the credibility and sources of information. You can use the Website Credibility Handout to discuss whether or not a website is credible.

5. Once the students have determined if the information they researched is credible, have the students compile a master list and distribute it to the class.
Health Services and Resources Handout

- Simcoe Muskoka District Health Unit (www.simcoemuskokahealth.org)
  - Health Connection (705) 721-7520 or 1-877-721-7520
  - Sexual Health Clinics (www.simcoemuskokahealth.org/classes_events/clinic.asp)
  - The Phakz (www.thephakz.ca)

- Assaulted Women’s Helpline (www.awhl.org)
- Association of Ontario Midwives (www.aom.on.ca)
- Best Start – Alcohol (www.alcoholfreepregnancy.ca)
- Best Start – Health Before Pregnancy (www.healthbeforepregnancy.ca)
- Canadian Cancer Society Smoker’s Help line (www.smokershelpline.ca)
- Canadian Pediatric Society – Caring for Kids (www.caringforkids.cps.ca)
- Canadian Federation for Sexual Health (www.cfsh.ca)
- Centre for Addictions and Mental Health (CAMH) (www.camh.net)
- College of Midwives of Ontario – complete prenatal, birth, and postnatal care and support (www.cmo.on.ca)
- College of Physicians and Surgeons of Ontario – “Find a Doctor” service (www.cpso.on.ca)
- Community Connections (www.211SimcoeCounty.ca and www.211Muskoka.ca)
- Dietitians of Canada (www.dietitians.ca)
- Doula C.A.R.E – labour and birth support from a Doula (www.doulacare.ca)
- Dr. Jack Newman – breastfeeding information on-line (www.drjacknewman.com)
- Food Banks (see Community Connections)
- Genetic Services
- Healthy Ontario (www.healthyontario.com)
- Invest in Kids – positive parenting tips and support, child development information, and comfort, play, and teach activities for children ages 0-5 (www.investinkids.ca)
- Kids Help Phone (http://kidshelp.sympatico.ca)
- La Leche League Canada – breastfeeding information, support and encouragement (www.lllc.ca)
LEAP – Learning, Earning, and Parenting - a program helping young parents on social assistance to finish high school, to learn more about parenting and to find a job (www.simcoe.ca/healthsocialservices/ontarioworks/aboutontarioworksemploymentassistance/learningearningandparentingleap/discoversimcoe_000654 or www.mcss.gov.on.ca/mcss/english-pillars/social/questions/LEAP

Local Public Library (see Community Connections)

March of Dimes (www.marchofdimes.com)

Mental Health Crisis Line & Mobile Crisis Response for Children and Youth – assessment, counseling and referral (1-888-893-8333)

Mental Health Crisis Lines (refer to Having a Baby in … sheets – found at: www.simcoemuskokahealth.org/Facts/Coowner/Where_to_Get_Help_During_Pregnancy_and_After_Birth.asp?NAV=BEFORE_PREGNANCY )

Motherisk – experts on the safety of medications, infections, and chemical exposures during pregnancy and breastfeeding; includes Alcohol and Substance Abuse Help Line, Nausea and Vomiting in Pregnancy Health Line and HIV in Pregnancy Line (www.motherisk.org)

National Eating Disorders Information Centre (www.nedic.ca)

Native Friendship Centres – (see Mental Health Crisis Lines)

Native Women’s Association of Canada (http://www.nwac-hq.org/)

Ontario Early Years Centre – a place for parents/caregivers of infants and children age 0-6 (www.gov.on.ca/children/oeyc/en/index.html)

Ontario Network of Sexual Assault / Domestic Violence Treatment Centres (www.satontario.com)

Ontario Works – provides financial and employment assistance to people in temporary financial need (www.mcss.gov.on.ca)

Perinatal Bereavement Services of Ontario – support for parents/family members grieving the death of a infant (www.pbso.ca)

Pregnets (CAMH) – information on quitting smoking for pregnant and breastfeeding women (www.pregnets.org)

Private Childbirth Educators (see Community Connections)


Sidelines – international support for women and their families experiencing complicated pregnancies and premature births (www.sidelines.org)

Sexuality and U – sexual health info for teens (http://sexualityandu.ca/teens/index.aspx)

Society of Obstetricians and Gynecologists (SOGC) (www.sogc.org)

Teens Health (Nemours Foundation) (http://kidshealth.org/teen/)


The Exercise & Pregnancy Help line (www.womenscollegehospital.ca/programs/program147.html)

Women’s Shelters – crisis intervention and counseling for abused women and children (www.shelternet.ca)

YMCA – programs, daycare, immigrant services, etc. (www.ymcaofsimcoemuskoka.ca)
# Health Services and Resources Worksheet

Student Name: ___________________________________________ Date: _______________________

<table>
<thead>
<tr>
<th>Service or Resource</th>
<th>Services Offered or Who Provides Service</th>
<th>Accessibility/Availability</th>
<th>Confidentiality</th>
<th>Barriers to Using the Service or Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Complete name and address</td>
<td>- Who works at the service?</td>
<td>- Hours of service</td>
<td>- Do you have the option to remain anonymous?</td>
<td>- List anything that would be a barrier to your use of the service or resource</td>
</tr>
<tr>
<td>- Location of service (phone book, clinic, web address, etc.)</td>
<td>- What do they do?</td>
<td>- Is an appointment necessary?</td>
<td>- Is parent consent required?</td>
<td>- For example, if the service is for women only, this would be a barrier for men.</td>
</tr>
<tr>
<td>- Location of resource</td>
<td>- Counselling on ...</td>
<td>- Easy to access?</td>
<td>- Release of information – who will be able to access your personal information?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Physical exams</td>
<td>- Is there a cost?</td>
<td>- Confidentiality – what does it mean?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Treatments</td>
<td>- Is it wheelchair accessible?</td>
<td>- Can you access the resource confidentially?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Referrals</td>
<td>- Are they welcoming and open to questions?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Etc.</td>
<td>- Do they cater to one group of people or community?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- What is the purpose of the resource?</td>
<td>- Are they non-judgmental?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Do they provide more than one point of view?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
No matter where you access your health information, it is important that you check the credibility of the information. The following questions are to help you assess the credibility of websites. You should be able to answer “yes” to most of these questions, in order for the website to be considered credible.

**Website Credibility Handout**

**Check the website’s purpose:**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does the website clearly state its mission and purpose?</td>
<td>- Is the health information based on solid scientific research?</td>
</tr>
<tr>
<td></td>
<td>- Are there many points of view? (Be careful of sites that support a specific cause, group, or source of funding)</td>
</tr>
<tr>
<td>Check the website’s sponsor(s).</td>
<td>- Does the website provide the sponsor’s contact information?</td>
</tr>
<tr>
<td></td>
<td>- Does the website identify its sponsors? If not, the website address (URL) can help you learn about them. For example, if the address ends in .edu, it is a school, college, or university. Some other common endings are:</td>
</tr>
<tr>
<td></td>
<td>- .gc.ca Canadian government</td>
</tr>
<tr>
<td></td>
<td>- .gov United States’ government</td>
</tr>
<tr>
<td></td>
<td>- .int international organizations</td>
</tr>
<tr>
<td></td>
<td>- .ca Canadian-based organizations</td>
</tr>
<tr>
<td></td>
<td>- .org non-profit organizations</td>
</tr>
<tr>
<td></td>
<td>- .com commercial sites</td>
</tr>
<tr>
<td>Check the organizations that support the website.</td>
<td>- Is the website endorsed by a health agency or association you can trust?</td>
</tr>
<tr>
<td></td>
<td>- Is the information presented the views of a single person, or that of a municipal, regional, national, or international view?</td>
</tr>
<tr>
<td></td>
<td>- Is the website a part of a network of partners and does it identity them?</td>
</tr>
<tr>
<td></td>
<td>- Is there background information about the sponsors?</td>
</tr>
<tr>
<td></td>
<td>- Does the website refer to organizations that are responsible for maintaining standards?</td>
</tr>
<tr>
<td>Check to see how the website is maintained.</td>
<td>- Do they have experts review the information?</td>
</tr>
<tr>
<td></td>
<td>- Do they post new information on a regular basis? Good websites often give the date of when the information was posted.</td>
</tr>
<tr>
<td>Check for authors’ names.</td>
<td>- Does the website clearly state the names of authors? Look for details such as university degrees, professional memberships in medical, nursing, scientific, or public health associations.</td>
</tr>
<tr>
<td></td>
<td>- Does the website post work by authors who have published articles in established journals?</td>
</tr>
<tr>
<td>Check who is making statements.</td>
<td>- Does the website provide information that is based on solid scientific research, not just opinion?</td>
</tr>
<tr>
<td></td>
<td>- Does the website provide references and links to support its statements?</td>
</tr>
<tr>
<td>Questions to ask yourself:</td>
<td>- Do the website’s claims seem good?</td>
</tr>
<tr>
<td></td>
<td>- Do the website’s claims seem to be true?</td>
</tr>
<tr>
<td></td>
<td>- Is the information based on emotion rather than scientific fact?</td>
</tr>
<tr>
<td></td>
<td>- Is the information based on facts that have been tested?</td>
</tr>
<tr>
<td></td>
<td>- Does the website focus on selling products?</td>
</tr>
<tr>
<td>Check the Disclaimers.</td>
<td>- Does the website take responsibility for its advice? Are they providing advice for “educational purposes only”?</td>
</tr>
</tbody>
</table>
Social Determinants of Health Activity Outline

Purpose: To assist students in describing how family, peers and community influence personal health and analyze the social factors that influence health. The students will complete a series of questions to identify how a variety of factors influence their personal and reproductive health and will explore the role of individual responsibility in enhancing personal health.

Equipment Required: Social Determinants of Health Worksheet (in appendix)

Time Required: To be determined

Instructions:

1. Distribute and explain the Social Determinants of Health Worksheet to the class.

2. Students are to individually complete questions # 1-4 of the worksheet.

3. Once students have completed their worksheets, you may choose to facilitate a large class discussion or divide the class into small groups to share their responses. Note: Responses offered will depend on the student’s comfort level.
Social Determinants of Health Worksheet

Use this worksheet to reflect on how your personal health has been affected by various factors.

1. Explain how each factor affects your personal health.

<table>
<thead>
<tr>
<th>Factor</th>
<th>How the factor affects your personal health.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Social Status</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>Media</td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td></td>
</tr>
<tr>
<td>Peers</td>
<td></td>
</tr>
<tr>
<td>Coping Skills</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>
2. Based on your answers to question #1, which factors have had a positive influence on your reproductive health? Explain how these factors affect your reproductive health in a positive way.

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

3. Based on your answers to question #1, which factors have had a negative influence on your reproductive health? Explain how these factors affect your reproductive health in a negative way.

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

4. Based on your answers to question #3 which negative influences could you change and how would you make the change in order to positively affect your reproductive health?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
THE GREAT DEBATE ACTIVITY

The Great Debate Activity Outline

Purpose: To assist students in identifying the effects of alcohol, tobacco and drugs on their reproductive health and the health of a growing fetus.

Equipment Required: The Great Debate Statements (in appendix)

Time Required: To be determined

Instructions:

1. There are three statements provided that can be debated. For each statement have a group of students be responsible to defend the “for” perspective and one group be responsible to defend the “against” perspective. If debating all three statements the class should be divided into 6 groups.

2. Allow the groups’ time to research the topic and organize their defense.

3. Assign a moderator to monitor time limitations and allow each group the opportunity for rebuttable time (teacher or volunteer student).

4. For each statement, the “for” and “against” group will defend their side of the debate, using information they have gathered to defend their perspective.

5. Class to vote for which group they feel addressed the issue best.
Drinking while pregnant is a woman’s choice.

Men and women who smoke tobacco around a pregnant woman should be legally charged.

Women who use illegal drugs should be placed in a detox institution during their pregnancy.
**Stress Activity Outline**

**Purpose:** To assist students in explaining how stress and one’s ability to cope with stress affect personal health. Students will complete a five day stress journal and identify the effects of stress on their health.

**Equipment Required:**
- Stress PowerPoint Presentation Slides (in appendix) or Stress PowerPoint Presentation (on CD)
- Five Day Stress Journal Worksheet (in appendix)
- Effects of Stress Worksheet (in appendix)
- Blackboard or large flip chart sheets
- Chalk or markers

**Time Required:** To be determined

**Instructions:**

1. Use the Stress Slides or the Stress PowerPoint Presentation to introduce and explain the topic of stress. Students can take notes or be provided with a handout.

2. Distribute and explain the Five Day Stress Journal Worksheet. Clarify how positive and negative events can be stressful and explain that students should provide examples of both. Ask students to distinguish between:
   - Physical symptoms: sweating, blushing, heart racing, etc.
   - Emotions: anger, excitement, fear, pride, embarrassment, etc.
   - Thoughts: “Wow!”, “I’m such a loser”, etc.
   - Behaviours: biting fingernails, hugging, crying, cheering, etc.

3. Five days later, upon completion of the journal entries, students will share some of their examples. Have them write examples from their journal responses on the blackboard (or large flip chart sheets). Note: Responses offered will depend on the student’s comfort level.

4. Distribute the Effects of Stress Worksheet. Facilitate a discussion on the student’s journal entries and help them to understand how their responses to stress correspond with the three stages of stress reactions (Mobilization of Energy, Exhaustion, and Draining Energy Stores).

5. Using all of the information presented to date and by referencing their stress journal responses, students will complete the Effects of Stress Worksheet.
Stress PowerPoint Presentation Slides

What am I?

Nobody can escape me.

I am sometimes good and sometimes harmful to your health.

I can be the spice of life.

I can be life threatening.

What is Stress?

- Stress is “a non-specific response of the body to any demand or challenge” [6], [7]
- Stress is anything that: [6]
  - threatens us
  - prods us
  - scares us
  - worries us
  - thrills us
- Stress is an inevitable aspect of life. [6]
- We are under stress every day. [6], [7]

Stress

What is Stress? (con’t)

- Stress is caused by both positive and negative situations. [23], [56], [57]
- The initial reaction when stressed (ALARM RESPONSE) is the same every time, whether the source of the stress (STRESSOR) is real or imagined, positive or negative. [56]
- Stress can be good (called “eustress”) when it helps us perform better, or it can be bad (called “distress”) when it causes upset or makes us sick. [56]
- Stress is highly subjective and differs from one person to the next. [56], [57]
Did you know?

- Your reaction to stress can affect your mental and physical health.  
- Stress can act as a motivator. Some people do their best work under stress.  
- Stress is a challenge for everyone but the ways in which it affects behaviour are highly individualistic.  
- Each of us has a great deal of freedom to decide exactly how much impact stressful events will have on our lives.

The Effects of Stress

Stage 1: Mobilization of Energy

Mobilization of Energy... The “Fight or Flight” Response

Stage 2: Exhaustion or Consuming Energy

Stage 3: Draining Energy Stores

Stage I: Mobilization of Energy

- Positive or negative stressors (events that provoke stress) increase bodily activity.  
- The adrenal glands are signaled by the hypothalamus to produce more of the hormones adrenaline and cortisol for release into the bloodstream.  
- As a result, the body can experience some changes:  
  - heart rate increases  
  - blood pressure increases  
  - metabolism increases  
  - more blood flow occurs to large muscle groups to alert muscles  
  - pupils dilate  
  - stored glucose is released by the liver to increase the body’s energy level  
  - sweat is produced to lower the body’s temperature.

- All of these changes to the body occur to prepare a person to react effectively to the stressor.
**Stage 1: Mobilization of Energy (con’t)**

- Symptoms: 53, 54
  - Sweating
  - Increased heart rate
  - Increase in blood pressure
  - butterflies in the stomach
  - Indigestion
  - Rapid breathing

**Stage 2: Exhaustion**

- If Stage 1 continues, the body begins to use up its resources and release stored fats and sugars, 53, 54
- Symptoms of the exhaustion stage include: 53, 54
  - Anxiety
  - Feeling pressured
  - Tiredness and fatigue
  - Loss of memory
  - Weakened immune system resulting in illnesses (colds, flu, etc.)
  - Feeling driven

- To respond to the continued stress, some people may drink more coffee or alcohol, or smoke more than usual. 53, 54

**Stage 3: Draining Energy Stores**

- When stressful situations remain unresolved, chronic stress may result, 53, 54
- In this stage, the human body is unable to produce an adequate amount of energy needed which can cause serious health problems, 53

- Symptoms: 53, 54
  - Difficulty sleeping
  - Changes in personality
  - Judgment errors

- Illnesses: 53, 54
  - Heart disease
  - Ulcers
  - Mental illness

**References**

- Coping with Stress. Canadian Mental Health Association 2008
- Stress. Canadian Mental Health Association 2008
  Available from: URL: http://www.cmha.ca/bins/content_page.asp?cid=2-28&lang=1
- Coping with Stress. Health Canada 2008
  Available from: URL: http://www.icnr.com/articles/thenatureofstress.html
- Effects of Stress. The American Institute of Stress 2008
  Available from: URL: http://www.stress.org/topic-effects.htm
- Stress. The Nemours Foundation 2007
**Five Day Stress Journal Worksheet**

Fill in a Stress Journal entry each time you feel stressed (positive or negative) in the span of the next five days. Be sure to record the date, time, and the situation that caused the stress. Describe the physical symptoms, emotions, thoughts, or behaviours that you experienced.

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Situation</th>
<th>Physical Symptoms</th>
<th>Emotions</th>
<th>Thoughts</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
## Effects of Stress Worksheet

<table>
<thead>
<tr>
<th>STAGE:</th>
<th>Reaction to Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Physical</td>
</tr>
</tbody>
</table>

**1. Mobilization of Energy**

**2. Exhaustion or Consuming Energy Stores**

**3. Draining Energy Stores**
APPENDIX

Diagrams of the Female and Male Reproductive Systems

Female reproductive system

- Fallopian tube
- Uterus
- Cervix
- Vagina
Female reproductive system

- Fallopian tube
- Ovary
- Uterus
- Bladder
- Clitoris
- Urethra
- Vagina
- Cervix
- Rectum
Male reproductive system

- Seminal vesicles
- Vas deferens
- Prostate gland
- Penis
- Epididymis
- Testicle
Diagrams of How Conception Occurs

Process of Fertilization

- an egg ripens
- the cervix opens and secretes fertile mucus
- intercourse can lead to conception

Diagrams of How Conception Occurs Property of: http://www.fertilityet.org.uk/
Fertilization and Implantation

fertilization (conception)

implantation

endometrium (food lining) develops

the cervix closes and secretes ‘mesh mucus’ to seal the womb

Diagrams of How Conception Occurs Property of: http://www.fertilityet.org.uk/
Did You Know? - Fact Sheet


- "Some studies have shown that as many as 50% of pregnancies are unplanned." Public Health Agency of Canada (August 2006). [http://www.phac-aspc.gc.ca/ccasn-rcsac/ct2006/consumption-consommation_e.html]

- "When pregnancies are unplanned, for whatever reason, the couple does not have the opportunity to assess and improve their health prior to conception." Best Start: Ontario’s Maternal, Newborn and Early Child Development Resource Centre. (2001). [http://www.beststart.org/resources/preconception/pdf/Preconception.pdf]

- "Infertility affects about 10% of otherwise healthy adults." (Wong and Perry, et. al., 2006, p.178).

- In Canada, over 40 percent of fertility problems are due to the female, 30 to 40 percent are due to the male, and 10 to 20 percent are unexplained. (Norris, January 2001). [http://dsp-psd.pwgsc.gc.ca/Collection-R/LoPBdP/EB-e/prb0032-e.pdf] Information and research clearly demonstrates the importance of healthy female and male reproductive systems for conception and positive birth outcomes.

- "Sperm is continuously produced. It takes about three months for sperm to fully develop and its quality may be affected by many factors during that time: heat, chemicals, recreational and prescription drugs, infections, etc." (Best Start, 2006). [http://www.beststart.org/resources/preconception/pdf/men_health.pdf]

- “The basic structure of all organ systems is established during the first 8 weeks of pregnancy. Teratogens [agents that cause birth defects] during this time period may cause major structural and functional damage to the developing organs.” (Smith Murray and Slone McKinney, 2006).

- According to the Ontario Registrar General’s vital statistics live birth data, for Simcoe Muskoka, in 2004, 5.4% (or 256) of all live births born to Simcoe Muskoka mothers were considered low birth weight (weight < 2,500 grams or 5 lbs, 8 oz). This is lower than Ontario’s low birth weight rate of 5.9% (7,744 live births). (Ontario Live Birth Data 2004, Provincial Health Planning Database (PHPDB) Extracted: June 2007, Ontario Ministry of Health and Long-Term Care).
Reproductive Health Quiz

Please mark each statement as true or false by putting a checkmark in the correct column.

<table>
<thead>
<tr>
<th>#</th>
<th>Question</th>
<th>T</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The choices men make about their health can influence their ability to produce healthy sperm.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>It is important to keep your immunizations up to date.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>A woman’s body weight can impact her fertility.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>A woman’s body weight doesn’t affect the health of the fetus during pregnancy and birth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Women should avoid exercise when pregnant.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Folate (Folic Acid) is an important part of every woman’s diet.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Women should limit their caffeine consumption when pregnant or planning on becoming pregnant.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Consuming fish containing high levels of mercury could harm a fetus’ developing nervous system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>All medications are safe to take during pregnancy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Using street drugs can have a negative impact on one’s reproductive health and the health of a fetus.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>When alcohol is consumed during pregnancy, an infant can be born with permanent brain damage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Smoking tobacco can reduce fertility in women and men.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Using tobacco products or exposure to second hand smoke during pregnancy can harm a fetus.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>The future health of a child can be affected by exposure to tobacco products during pregnancy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Sexually transmitted infections (STIs) can cause infertility in both women and men.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Sexually transmitted infections (STIs) can affect the fetus during pregnancy and birth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Reproductive health is not affected by exposure to toxic substances in the environment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>During pregnancy, exposure to toxic substances in the environment can affect the development of a fetus.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Exclusive breastfeeding is the healthiest way to feed an infant for the first six months.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Stress can impact fertility.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reproductive Health Fill-in-the-Blank Worksheet

Student’s Name _______________________

Date _____________________

Please complete the following fill in the blank statements.

1. The chemicals in tobacco smoke are hazardous to the female reproductive system and can impact a woman’s __________.

2. Medications that are safe for a woman may not be safe for a developing __________.

3. ____________ is essential to the normal development of the spine, brain and skull of the fetus, especially during the first four weeks of pregnancy.

4. Some STIs can cause ____________ in women and men.

5. Regular ____________ is beneficial for both the pregnant woman and the developing fetus, and may also contribute to an easier labour and birth.

6. In women, __________ alters fertility by changing when the eggs are released and may alter the normal pattern of menstruation.

7. Women should limit their ____________ consumption when pregnant or planning on becoming pregnant.

8. When a pregnant woman is exposed to toxic substances in her environment, these toxic substances can cross the __________ and affect the development of the fetus.

9. Maternal __________ can affect the fetus during pregnancy and birth.

10. There is NO safe amount and NO safe time during pregnancy to drink __________.

11. Exclusive ____________ is the healthiest way to feed and infant for the first six months.

12. Consuming fish containing high levels of ____________ could harm a fetus’ developing nervous system.

13. The negative effects on the fetus appear to increase with the amount of __________ inhaled, either directly by the woman or indirectly as a result of second hand smoke.

14. Many __________ cause long term damage to both sperm and eggs which impacts on fertility.

15. Certain vaccine preventable __________ can cause severe damage to a fetus if the mother comes in contact with the disease and is not vaccinated against the disease.

<table>
<thead>
<tr>
<th>weight</th>
<th>smoke</th>
<th>diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>mercury</td>
<td>caffeine</td>
<td>infertility</td>
</tr>
<tr>
<td>drugs</td>
<td>alcohol</td>
<td>fetus</td>
</tr>
<tr>
<td>physical activity</td>
<td>fertility</td>
<td>stress</td>
</tr>
<tr>
<td>breastfeeding</td>
<td>Folate/folic acid</td>
<td>placenta</td>
</tr>
</tbody>
</table>
## Factors Impacting Fertility, Pregnancy, and Birth Worksheet

Describe how the factor impacts on fertility, pregnancy, and birth.

<table>
<thead>
<tr>
<th>Factor</th>
<th>How the factor impacts fertility, pregnancy, and birth.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td></td>
</tr>
<tr>
<td>Medications</td>
<td></td>
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<tr>
<td>Street Drugs</td>
<td></td>
</tr>
<tr>
<td>Sexually Transmitted Infections</td>
<td></td>
</tr>
<tr>
<td>Body Weight</td>
<td></td>
</tr>
<tr>
<td>Exercise</td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td></td>
</tr>
<tr>
<td>Alcohol</td>
<td></td>
</tr>
<tr>
<td>Breastfeeding</td>
<td></td>
</tr>
<tr>
<td>Mercury in Fish</td>
<td></td>
</tr>
<tr>
<td>Nutrition</td>
<td></td>
</tr>
<tr>
<td>Immunizations</td>
<td></td>
</tr>
</tbody>
</table>
Health Services and Resources Handout

- Simcoe Muskoka District Health Unit (www.simcoemuskokahealth.org)
  - Health Connection (705) 721-7520 or 1-877-721-7520
  - Sexual Health Clinics (www.simcoemuskokahealth.org/classes_events/clinic.asp)
  - The Phakz (www.thephakz.ca)

- Assaulted Women’s Helpline (www.awhl.org)
- Association of Ontario Midwives (www.aom.on.ca)
- Best Start – Alcohol (www.alcoholfreepregnancy.ca)
- Best Start – Health Before Pregnancy (www.healthbeforepregnancy.ca)
- Canadian Cancer Society Smoker’s Help line (www.smokershelpline.ca)
- Canadian Pediatric Society – Caring for Kids (www.caringforkids.cps.ca)
- Canadian Federation for Sexual Health (www.cfsh.ca)
- Centre for Addictions and Mental Health (CAMH) (www.camh.net)
- Children’s Aid Societies: (www.simcoecas.com/en/awareness/links.asp or www.fycsm.ca/)
- College of Midwives of Ontario – complete prenatal, birth, and postnatal care and support (www.cmo.on.ca)
- College of Physicians and Surgeons of Ontario – “Find a Doctor” service (www.cpso.on.ca)
- Community Connections (www.211SimcoeCounty.ca and www.211Muskoka.ca)
- Dietitians of Canada (www.dietitians.ca)
- Doula C.A.R.E – labour and birth support from a Doula (www.doulacare.ca)
- Dr. Jack Newman – breastfeeding information on-line (www.drjacknewman.com)
- Food Banks (see Community Connections)
- Genetic Services
- Healthy Ontario (www.healthyontario.com)
- Invest in Kids –positive parenting tips and support, child development information, and comfort, play, and teach activities for children ages 0-5 (www.investinkids.ca)
- Kids Help Phone (http://kidshelp.sympatico.ca)
- La Leche League Canada – breastfeeding information, support and encouragement (www.lllc.ca)
LEAP – Learning, Earning, and Parenting - a program helping young parents on social assistance to finish high school, to learn more about parenting and to find a job (www.simcoe.ca/healthsocialservices/ontarioworks/aboutontarioworksemploymentassistance/learningearningandparentingleap/discoversimcoe_000654 or www.mcss.gov.on.ca/mcss/english/pillars/social/questions/LEAP)

Local Public Library (see Community Connections)

March of Dimes (www.marchofdimes.com)

Mental Health Crisis Line & Mobile Crisis Response for Children and Youth – assessment, counseling and referral (1-888-893-8333)

Mental Health Crisis Lines (refer to Having a Baby in … sheets – found at: www.simcoemuskokahealth.org/Facts/Coowner/Where_to_Get_Help_During_Pregnancy_and_After_Birth.asp?NAV=BEFORE_PREGNANCY)

Motherisk – safety of medications, infections, and chemical exposures during pregnancy and breastfeeding; includes Alcohol and Substance Abuse Help Line, Nausea and Vomiting in Pregnancy Health Line and HIV in Pregnancy Line (www.motherisk.org)

National Eating Disorders Information Centre (www.nedic.ca)

Native Friendship Centres – (see Mental Health Crisis Lines)

Native Women’s Association of Canada (http://www.nwac-hq.org/)

Ontario Early Years Centre – a place for parents/caregivers of infants and children age 0-6 (www.gov.on.ca/children/oeyc/en/index.html)

Ontario Network of Sexual Assault / Domestic Violence Treatment Centres (www.satcontario.com)

Ontario Works – provides financial and employment assistance to people in temporary financial need (www.mcss.gov.on.ca)

Perinatal Bereavement Services of Ontario – support for parents/family members grieving the death of a infant (www.pbso.ca)

Pregnets (CAMH) – info on quitting smoking for pregnant and breastfeeding women (www.pregnets.org)

Private Childbirth Educators (see Community Connections)


Sidelines – international support for women and their families experiencing complicated pregnancies and premature births (www.sidelines.org)

Sexuality and U – sexual health info for teens (http://sexualityandu.ca/teens/index.aspx)

Society of Obstetricians and Gynecologists (SOGC) (www.sogc.org)

Teens Health (Nemours Foundation) (http://kidshealth.org/teen/)


The Exercise & Pregnancy Help line (www.womenscollegehospital.ca/programs/program147.html)

Women’s Shelters – crisis intervention and counseling for abused women and children (www.shelternet.ca)

YMCA – programs, daycare, immigrant services, etc. (www.ymcaofsimcoemuskoka.ca)
# Health Services and Resources Worksheet

**Student Name:** ___________________________________________  **Date:** ____________________

<table>
<thead>
<tr>
<th>Service or Resource</th>
<th>Services Offered or Who Provides Service</th>
<th>Accessibility/Availability</th>
<th>Confidentiality</th>
<th>Barriers to Using the Service or Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Complete name and address</td>
<td>- Who works at the service?</td>
<td>- Hours of service</td>
<td>- Do you have the option to remain anonymous?</td>
<td>- List anything that would be a barrier to your use of the service or resource</td>
</tr>
<tr>
<td>- Location of service (phone book, clinic, web address, etc.)</td>
<td>- What do they do?</td>
<td>- Is an appointment necessary?</td>
<td>- Is parent consent required?</td>
<td>- For example, if the service is for women only, this would be a barrier for men.</td>
</tr>
<tr>
<td>- Location of resource</td>
<td>- Counselling on ...</td>
<td>- Easy to access?</td>
<td>- Release of information – who will be able to access your personal information?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Physical exams</td>
<td>- Is there a cost?</td>
<td>- Confidentiality – what does it mean?</td>
<td></td>
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<tr>
<td></td>
<td>- Treatments</td>
<td>- Is it wheelchair accessible?</td>
<td>- Can you access the resource confidentially?</td>
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<td></td>
<td>- Referrals</td>
<td>- Are they welcoming and open to questions?</td>
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<td></td>
<td>- Etc.</td>
<td>- Do they cater to one group of people or community?</td>
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<td></td>
<td>- What is the purpose of the resource?</td>
<td>- Are they non-judgmental?</td>
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<td></td>
<td></td>
<td>- Do they provide more than one point of view?</td>
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</tbody>
</table>
No matter where you access your health information, it is important that you check the credibility of the information. The following questions are to help you assess the credibility of websites. You should be able to answer “yes” to most of these questions, in order for the website to be considered credible.

### Check the website’s purpose.

<table>
<thead>
<tr>
<th>Does the website clearly state its mission and purpose?</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Is the health information based on solid scientific research?</td>
</tr>
<tr>
<td>- Are there many points of view? (Be careful of sites that support a specific cause, group, or source of funding)</td>
</tr>
</tbody>
</table>

### Check the website’s sponsor(s).

| - Does the website provide the sponsor’s contact information? |
| - Does the website identify its sponsors? If not, the website address (URL) can help you learn about them. For example, if the address ends in .edu, it is a school, college, or university. Some other common endings are: |
| .gc.ca | Canadian government |
| .gov | United States’ government |
| .int | international organizations |
| .ca | Canadian-based organizations |
| .org | non-profit organizations |
| .com | commercial sites |

### Check the organizations that support the website.

| - Is the website endorsed by a health agency or association you can trust? |
| - Is the information presented the views of a single person, or that of a municipal, regional, national, or international view? |
| - Is the website a part of a network of partners and does it identify them? |
| - Is there background information about the sponsors? |
| - Does the website refer to organizations that are responsible for maintaining standards? |

### Check to see how the website is maintained.

| - Do they have experts review the information? |
| - Do they post new information on a regular basis? Good websites often give the date of when the information was posted. |

### Check for authors’ names.

| - Does the website clearly state the names of authors? Look for details such as university degrees, professional memberships in medical, nursing, scientific, or public health associations. |
| - Does the website post work by authors who have published articles in established journals? |

### Check who is making statements.

| - Does the website provide information that is based on solid scientific research, not just opinion? |
| - Does the website provide references and links to support its statements? |

### Questions to ask yourself:

| - Do the website’s claims seem good? |
| - Do the website’s claims seem to be true? |
| - Is the information based on emotion rather than scientific fact? |
| - Is the information based on facts that have been tested? |
| - Does the website focus on selling products? |

### Check the Disclaimers.

| - Does the website take responsibility for its advice? Are they providing advice for “educational purposes only”? |
# Social Determinants of Health Worksheet

Use this worksheet to reflect on how your personal health has been affected by various factors.

1. Explain how each factor affects your personal health.

<table>
<thead>
<tr>
<th>Factor</th>
<th>How the factor affects your personal health.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Culture</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Social Status</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
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<tr>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>Media</td>
<td></td>
</tr>
<tr>
<td>Family</td>
<td></td>
</tr>
<tr>
<td>Peers</td>
<td></td>
</tr>
<tr>
<td>Coping Skills</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>
2. Based on your answers to question #1, which factors have had a positive influence on your reproductive health? Explain how these factors affect your reproductive health in a positive way.

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

3. Based on your answers to question #1, which factors have had a negative influence on your reproductive health? Explain how these factors affect your reproductive health in a negative way.

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

4. Based on your answers to question #3, which negative influences could you change and how would you make the change in order to positively affect your reproductive health?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
Drinking while pregnant is a woman’s choice.

Men and women who smoke tobacco around a pregnant woman should be legally charged.

Women who use illegal drugs should be placed in a detox institution during their pregnancy.
What am I?

Nobody can escape me.

I am sometimes good and sometimes harmful to your health.

I can be the spice of life.

I can be life threatening.
Stress
What is Stress?

- Stress is “a non-specific response of the body to any demand or challenge” 56, 57

- Stress is anything that: 56
  - threatens us
  - prods us
  - scares us
  - worries us
  - thrills us

- Stress is an inevitable aspect of life. 56

- We are under stress every day. 55, 56
What is Stress? (con’t)

• Stress is caused by both positive and negative situations. 23, 56, 57

• The initial reaction when stressed (ALARM RESPONSE) is the same every time, whether the source of the stress (STRESSOR) is real or imagined, positive or negative. 56

• Stress can be good (called “eustress”) when it helps us perform better, or it can be bad (called “distress”) when it causes upset or makes us sick. 56

• Stress is highly subjective and differs from one person to the next. 56, 57
Did you know?

- Your reaction to stress can affect your mental and physical health.\textsuperscript{23}

- Stress can act as a motivator. Some people do their best work under stress.\textsuperscript{54}

- Stress is a challenge for everyone but the ways in which it affects behaviour are highly individualistic.\textsuperscript{54, 56}

- Each of us has a great deal of freedom to decide exactly how much impact stressful events will have on our lives.\textsuperscript{56}
• The most healthy, successful and accident free persons are those who are able to manage stress appropriately. 52

• People who feel alone in the world, who are uninvolved with other people and their community, run a higher risk of illness due to stress. 52

• Stress can be managed, and the healthiest among us manage it on a daily basis. 56
The Effects of Stress

Stage 1: Mobilization of Energy…
The “Fight or Flight” Response

Stage 2: Exhaustion or Consuming Energy

Stage 3: Draining Energy Stores
Stage I: Mobilization of Energy

- Positive or negative stressors (events that provoke stress) increase bodily activity.  

- The adrenal glands are signaled by the hypothalamus to produce more of the hormones adrenaline and cortisol for release into the bloodstream.  

- As a result, the body can experience some changes: 
  - heart rate increases 
  - blood pressure increases 
  - metabolism increases 
  - more blood flow occurs to large muscle groups to alert muscles 
  - pupils dilate 
  - stored glucose is released by the liver to increase the body’s energy level 
  - sweat is produced to lower the body’s temperature.  

- All of these changes to the body occur to prepare a person to react effectively to the stressor.
Stage I: Mobilization of Energy (con’t)

• Symptoms: 53, 54
  - Sweating
  - Increased heart rate
  - Increase in blood pressure
  - Butterflies in the stomach
  - Indigestion
  - Rapid breathing
Stage 2: Exhaustion

- If Stage 1 continues, the body begins to use up its resources and release stored fats and sugars. 53, 54

- Symptoms of the exhaustion stage include: 53, 54
  - Anxiety
  - Feeling pressured
  - Tiredness and fatigue
  - Loss of memory
  - Weakened immune system resulting in illnesses (colds, flu, etc.)
  - Feeling driven

- To respond to the continued stress, some people may drink more coffee or alcohol, or smoke more than usual. 23, 54
Stage 3: Draining Energy Stores

• When stressful situations remain unresolved, chronic stress may result. 53, 54

• In this stage, the human body is unable to produce an adequate amount of energy needed which can cause serious health problems. 53

• Symptoms: 53, 54
  - Difficulty sleeping
  - Changes in personality
  - Judgment errors

• Illnesses: 53, 54
  - Heart disease
  - Ulcers
  - Mental illness
References

• Stress Management: Causes of Stress. B C Health Guide 2007

• Coping with Stress. Canadian Mental Health Association 2008

• Stress. Canadian Mental Health Association 2008
  Available from: URL: http://www.cmha.ca/bins/content_page.asp?cid=2-28&lang=1

• Coping with Stress. Health Canada 2008


  Available from: URL: http://www.icnr.com/articles/thenatureofstress.html

• Effects of Stress. The American Institute of Stress 2008
  Available from: URL: http://www.stress.org/topic-effects.htm

• Stress. The Nemours Foundation 2007
### Five Day Stress Journal Worksheet

Fill in a Stress Journal entry each time you feel stressed (positive or negative) in the span of the next five days. Be sure to record the date, time, and the situation that caused the stress. Describe the physical symptoms, emotions, thoughts, or behaviours that you experienced.

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Situation</th>
<th>Physical Symptoms</th>
<th>Emotions</th>
<th>Thoughts</th>
<th>Behaviour</th>
</tr>
</thead>
<tbody>
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[Simcoe Muskoka District Health Unit logo]
## Effects of Stress Worksheet

<table>
<thead>
<tr>
<th>STAGE:</th>
<th>Reaction to Stress</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Physical</td>
</tr>
<tr>
<td>1. <em>Mobilization of Energy</em></td>
<td></td>
</tr>
<tr>
<td>2. <em>Exhaustion or Consuming Energy Stores</em></td>
<td></td>
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<tr>
<td>3. <em>Draining Energy Stores</em></td>
<td></td>
</tr>
</tbody>
</table>
# Reproductive Health Lesson Plan Evaluation

We value your feedback. Please take the time to fax or e-mail this evaluation each time you use the Reproductive Health Lesson Plan.

1. **The school board I teach in is:**
   - Simcoe Muskoka Catholic District School Board
   - Simcoe County District School Board
   - Trillium Lakelands District School Board

2. **The class the RHLP was used in:**
   - Gr. 11 Physical Health and Education
   - Gr. 12 Physical Health and Education
   - Gr. 11 Social Sciences and Humanities
   - Gr. 12 Social Sciences and Humanities
   - Other:

3. **How would you rate the effectiveness of the student activities?**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Very Effective</th>
<th>Effective</th>
<th>Not Effective</th>
<th>Will Not Use It Again</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview of the Reproductive System Activity</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tr>
<tr>
<td>How Conception Occurs Activity</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Did You Know? Fact Sheet</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tr>
<tr>
<td>Reproductive Health Quiz</td>
<td>□</td>
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<td>□</td>
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</tr>
<tr>
<td>Reproductive Health Fill-in-the-Blank Activity</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>Factors Impacting Fertility, Pregnancy and Birth</td>
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<td>□</td>
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<tr>
<td>Health Services and Resources Assessment</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Social Determinants of Health Activity</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The Great Debate!</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Stress Activity</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

4. **Will you use the binder again?**
   - YES □
   - NO □

5. **If you have answered NO to questions #3, please comment:**

6. **Any additional comments you have are appreciated.**

Please fax or e-mail your completed evaluation to:

**FAX:** Simcoe Muskoka District Health Unit, RH Program (705) 721-1495  **OR E-mail:** double click attached e-mail form link
# School Resources Order Form

**Contact Person:**

**School Name:**

**Address:**

**Phone/email:**

**Order Date:**

Please allow 2-4 weeks for delivery of materials from SMDHU.

<table>
<thead>
<tr>
<th>Resources</th>
<th>Please Contact</th>
<th>Phone/Fax/Web Site</th>
<th>Cost</th>
<th>Copies Required from SMDHU</th>
<th>Number Sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having a Baby in … resource list available for Barrie, Collingwood, North Simcoe, South Simcoe, Orillia and Muskoka</td>
<td>Simcoe Muskoka District Health Unit</td>
<td>PHONE: 705-721-7520 ext. 8323 FAX: 705-721-1495</td>
<td>Free</td>
<td></td>
<td></td>
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<tr>
<td>When it comes to sex there are no dumb questions. Tear pads</td>
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<tr>
<td>* not approved for use by SMCDSB</td>
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<tr>
<td>the phakz posters</td>
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<tr>
<td>please see sample sheet</td>
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<tr>
<td>☐ Take a peek (eyes)</td>
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<tr>
<td>☐ Take a peek (key hole)</td>
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<tr>
<td>☐ Take a peek (underwear)</td>
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<td>* not approved for use by SMCDSB</td>
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<tr>
<td>Immunization. Your choice… their future pamphlet</td>
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<tr>
<td>Health Connection magnets</td>
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<tr>
<td>Mercury and Retail Fish fact sheet</td>
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<tr>
<td>Fish Consumption Advice for Small Children, … fact sheet</td>
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<tr>
<td>Fetal Alcohol Spectrum Disorder booklet</td>
<td>Health Canada (Division of Childhood and Adolescence)</td>
<td>Ph: 613 954-5995 Fax: 613 952-1556</td>
<td>Free</td>
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<tr>
<td>The Sensible Guide to a Healthy Pregnancy booklet</td>
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<tr>
<td>Eating Well with Canada’s Food Guide fact sheet</td>
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<tr>
<td>Prenatal HIV Testing pamphlet</td>
<td>Ministry of Health and Long-term Care</td>
<td>1 800 268-1154</td>
<td>Free</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there a baby in your future? Plan for it. brochure</td>
<td>Best Start Resource Centre</td>
<td><a href="http://www.beststart.org">www.beststart.org</a></td>
<td>$0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Folic Acid pamphlet</td>
<td>The Spina Bifida and Hydrocephalus Assoc.</td>
<td><a href="http://www.sbhac.ca">www.sbhac.ca</a></td>
<td>Free</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playing It Safe: Childproofing for Environmental Health brochure</td>
<td>The Canadian Partnership for Children’s Health and Environment</td>
<td><a href="http://www.healthyenvironmentforkids.ca">www.healthyenvironmentforkids.ca</a></td>
<td>100 for $20 (or free to download)</td>
<td></td>
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</tr>
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</table>
ACKNOWLEDGEMENTS

The Reproductive Health Lesson Plan has included material adapted from Elgin St. Thomas Health Unit’s Preconception Health Lesson Plan.

Diagrams of the Female and Male Reproductive System have been used with permission from SexualityandU.ca.

Student Activity – Factors Impacting Fertility, Pregnancy, and Birth adapted with permission from Ophea [Unit #3: Healthy Living: Subtask 1: Healthy Relationships: Factors That Impact on Pregnancy and Birth: BL03.01.04, 2002].

Student Activity – Health Services and Resources Assessment Activity adapted with permission from Ophea [Hale Module #1: Healthy Relationships and Sexuality: Public Profile Unit #3, Activity #1, Teaching Learning Strategy #3, 2000].

Student Activity – Social Determinants of Health adapted with permission from Ophea Unit #3: Healthy Living: Subtask 1: Healthy Relationships: Sexuality and Gender Role Personal Analysis: BL03.01.03, 2002].

Student Activity – Stress adapted with permission from Ophea [Hale Module #2: Positive Mental Health and Stress: Public Profile Unit #3, Activity #4, Teaching Strategy #1 (Positive and Negative Effects of Stress), 2000].

Breastfeeding information chart (on page 33 of this document) adapted and reprinted with the permission of Toronto Public Health’s resource Breastfeeding Your Baby, 2007.

The Website Credibility handout adapted from the Immunization Information on the Internet handout produced by the Canadian Coalition for Immunization Awareness & Promotion.

The Diagrams of How Conception Occurs Activity are used with permission from the Fertility Education Trust, available at: http://www.fertilityet.org.uk/.
REFERENCE LIST


(15) Best Start. Mens Health: How to Build a Better Baby. 2006. Ref Type: Pamphlet


(19) Simcoe Muskoka District Health Unit. Immunization: Your choice…Their Future re Immunization Schedule. 2008. Ref Type: Pamphlet


(53) Best Start. Is There a Baby in Your Future - Plan For It. 2007. Ref Type: Pamphlet


(65) 14 Risks of Formula Feeding. Infact Canada . 2008. Ref Type: Pamphlet


(67) Simcoe Muskoka District Health Unit. Content from Getting Ready for Baby Classes. 2008. Ref Type: Slide