

The Immunization Program For Grade Seven Students

*A Teaching Resource Matched to the
Ontario Curriculum for*



And



Prepared for the York Region District School Board



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Sub-Task #1 Introduction to Hepatitis B

Materials

Fact Sheets, BLMs/Overheads and Activity Worksheet

Description

Students will describe hepatitis B disease, its symptoms, effects on the body, modes of transmission and prevention through active discussion and activities.

Expectation Code	Learning Expectations
7p10	Identify the methods of transmission, the symptoms of sexually transmitted diseases (STDs) and ways to prevent them, specifically hepatitis B.
7p12	Explain the term abstinence/chastity as it applies to healthy sexuality.
7p16	Outline a variety of issues related to substance use and abuse (e.g., the impact of laws governing drug use).
7.1.1	Identify the topic, purpose, and audience for more complex writing forms.
7.1.5	Identify and order main ideas and supporting details and group them into units that could be used to develop a multi-paragraph piece of writing.
7s8	Identify micro-organisms as beneficial (e.g., yeast) and/or harmful (e.g., bacteria or viruses that cause diseases), specifically hepatitis B.

Assessment Opportunities/Assessing Expectations

Peer assessment: The students will review each other's completed Hepatitis B Activity Worksheet for accuracy.

Teacher assessment: The teacher will assess each student's paragraph for accuracy and use of appropriate vocabulary. This paragraph will be included in the letter to be sent home to the parents/guardians at the end of the unit.

Notes to Teacher

- Background information on hepatitis B is provided on fact sheets
- Overheads are provided on blackline masters
- Students may not be:
 - familiar with the organs in the abdominal cavity
 - aware of the role of the liver in maintaining good health
 - aware of some of the vocabulary related to hepatitis B
- Make a copy of the Hepatitis B Activity Worksheet (Appendix #15) for each student.

Teaching/Learning Strategies

1. Prepare for the unit by reading the background information provided in Appendix #1 – Fact Sheet - Introduction to Hepatitis B and Appendix #3 – Fact Sheet - Medical Terms Glossary.
2. Share with the students the expectations addressed in the unit and the culminating activity. (Refer to Sub-Tasks #3 and #4).
3. Discuss the rate of occurrence hepatitis B disease (150 new cases per year in Ontario). Describe possible long-term effects (i.e. cirrhosis or liver cancer). Refer to Appendix #9 – BLM - Hepatitis B Disease.
4. Provide the students with an overview of the liver's role, including its location and functions. Refer to Appendix #10 – BLM – Functions of the Liver.
5. Review the symptoms of hepatitis B, emphasizing that up to half of infected people do not develop symptoms. If symptoms occur, they are vague and resemble other illnesses. Refer to Appendix #11 - BLM – Symptoms of Hepatitis B Disease.
6. Discuss the hepatitis B virus (where it lives, ease of transmission). Refer to Appendix #12 – BLM – The Hepatitis B Virus.
7. Present modes of transmission for hepatitis B. Refer to Appendix #13 – BLM – How Hepatitis B Spreads.
8. Summarize the ways to protect oneself against hepatitis B. Refer to Appendix #14 – BLM – Protection from Hepatitis B.
9. Distribute a copy of the Hepatitis B Activity Worksheet (Appendix #15) to each student for completion.
10. Students will share their answers in groups to review the accuracy of their completed worksheets. (Refer to Appendix #16 – Answers to the Hepatitis B Activity Worksheet.)

11. Each student will write a paragraph about hepatitis B. This paragraph will contain at least two facts about each of the following: hepatitis B disease, its effects on the liver, symptoms, transmission and prevention. This letter will serve as the first paragraph for a letter to be sent home to parents at the end of the unit.

Appendices

Appendix #1	Fact Sheet - Introduction to Hepatitis B
Appendix #3	Fact Sheet - Medical Terms Glossary
Appendix #9	BLM – Hepatitis B Disease
Appendix #10	BLM – Functions of the Liver
Appendix #11	BLM – Symptoms of Hepatitis B Disease
Appendix #12	BLM – The Hepatitis B Virus
Appendix #13	BLM – How Hepatitis B Spreads
Appendix #14	BLM – Protection from Hepatitis B
Appendix #15	Hepatitis B Activity Worksheet
Appendix #16	Answers to the Hepatitis B Activity Worksheet
Appendix #31	Rubrics for (1) Language Arts and (2) Health and Physical Education
Appendix #32	Format for a Personal Letter

Sub-Task #2 Introduction to Meningitis

Materials

Fact Sheets, BLMs/Overheads and Activity Worksheet

Description

Students will describe Meningitis disease, its symptoms, effects on the body, modes of transmission and prevention through active discussion and activities.

Expectation Code	Learning Expectations
7.1.2	Identify the topic, purpose, and audience for more complex writing forms.
7.1.6	Identify and order main ideas and supporting details and group them into units that could be used to develop a multi-paragraph piece of writing.
7s8	Identify micro-organisms as beneficial (e.g., yeast) and/or harmful (e.g., bacteria or viruses that cause diseases).

Assessment Opportunities/Assessing Expectations

Peer assessment: The students will review each other's completed Meningitis Activity Worksheet for accuracy.

Teacher assessment: The teacher will assess each student's paragraph for accuracy and use of appropriate vocabulary. This paragraph will be included in the letter to be sent home to the parents/guardians at the end of the unit.

Notes to Teacher

- Background information is provided on fact sheets
- Overheads are provided on blackline masters
- Students may not be aware of some of the vocabulary related to Meningitis
- Make a copy of the Meningitis Activity Worksheet (Appendix #22) for each student.

Teaching/Learning Strategies

1. Prepare for the unit by reading the background information provided in Appendix #2 – Fact Sheet – Introduction to Meningitis, and Appendix #3 – Fact Sheet – Medical Terms Glossary.
2. Share with the students the expectations addressed in the unit and the culminating activity. (Refer to Sub-Tasks #3 and #4).
3. Discuss the effects of Meningitis disease on the brain, lining of the spinal cord, and in the blood, and possible long-term outcomes (e.g., amputations, kidney disease, hearing problems, death). Refer to Appendix #17 – BLM – Meningitis Disease.
4. Review the symptoms of Meningitis infection. Refer to Appendix #18 - BLM – Symptoms of Meningitis Disease.
6. Lead a discussion on transmission of the Meningitis bacteria, including:
 - where the bacteria lives (saliva, nose and throat secretions, and droplets expelled into the air when one coughs or sneezes). Refer to Appendix #19 – BLM – The Meningitis Bacteria.
 - how the bacteria is transmitted (person to person contact through kissing or using items that have been in contact with an infected person’s saliva). Refer to Appendix #20 – BLM – How Meningitis Spreads.
5. Summarize the ways to protect oneself against Meningitis. Refer to Appendix #21 – BLM – Protection from Meningitis.
6. Distribute a copy of the Meningitis Activity Worksheet (Appendix #22) to each student for completion.
7. Students will share their answers in groups to review the accuracy of their completed worksheet. (Refer to Appendix #23 – Answers to the Meningitis Activity Worksheet.)
8. Each student will write a paragraph about Meningitis. This paragraph will contain at least two facts about each of the following: Meningitis disease, its effects on the body, symptoms, transmission and prevention. This letter will serve as the second paragraph for a letter to be sent home to parents at the end of the unit.

Appendices

Appendix #2	Fact Sheet - Introduction to Meningitis
Appendix #3	Fact Sheet - Medical Terms Glossary
Appendix #17	BLM – Meningitis Disease
Appendix #18	BLM – Symptoms of Meningitis Disease
Appendix #19	BLM – The Meningitis Bacteria

Appendix #20	BLM – How Meningitis Spreads
Appendix #21	BLM – Protection from Meningitis
Appendix #22	Meningitis Activity Worksheet
Appendix #23	Answers to the Meningitis Activity Worksheet
Appendix #31	Rubrics for (1) Language Arts and (2) Health and Physical Education

Sub-Task #3 Making a Decision about Vaccination

Materials

Fact Sheets, BLMs/Overheads, Venn Diagram Exercise

Description

Students will be encouraged to make an informed decision about receiving the hepatitis B and Meningitis vaccinations by reviewing their knowledge of the diseases, the risks/benefits of the vaccines, and the concept of informed consent.

Expectation Code	Learning Expectations
7p17	Identify and categorize drugs as stimulants, depressants, and hallucinogens, including the vaccine as harmful or beneficial.
7p18	Apply a decision-making process to make informed choices regarding drug use.
7.2.5	Identify their point of view and other possible points of view, and find ways to acknowledge the other points of view, if appropriate

Assessment Opportunities/Assessing Expectations

Peer assessment: The completed Venn diagram will be reviewed orally by the class.

Teacher assessment: The teacher will assess each student's paragraph, which will then become part of the letter sent to parents at the end of the unit.

Notes to Teacher

Children should be familiar with how to complete a Venn diagram.

Teaching/Learning Strategies

1. Prepare for the unit by reading the background information provided in Appendix #5 – Fact Sheet – Making the Vaccination Decision, Appendix #6 – Fact Sheet - Sample Letter to Parents and Appendix #7 – Fact Sheet – Frequently Asked Questions About Hepatitis B and Meningitis Immunizations.
2. Share with the students the expectations addressed in the unit.

3. Copy one Venn Diagram Exercise for Hepatitis B and Meningitis (Appendix #24) for each student.
4. Review with students the concepts involved in giving informed consent. (Refer to Appendix #5.) In order to give informed consent, students need to do the following:
 - a) **Understand** the vaccines. The more the students know, the better they are able to make an informed decision about being immunized.
 - b) **Consider** the risks and benefits of allowing the vaccines into their bodies.
 - c) **Evaluate** if the vaccines are good for their health.
 - d) **Decide** if they will be vaccinated against hepatitis B and Meningitis.
5. Distribute a copy of the Venn Diagram Exercise for Hepatitis B and Meningitis (Appendix #24) to each student for completion.
6. Ask the students to work in pairs to complete their Venn diagrams.
7. Lead the students in an oral review of the completed Venn diagram. Refer to Appendix #24 - Suggested Answers to the Venn Diagram for Hepatitis B and Meningitis.
8. Each student will individually compose a paragraph stating his/her decision about receiving the hepatitis B and Meningitis vaccinations. This paragraph should include reasons supporting this decision.

Appendices

Appendix #5	Fact Sheet - Making the Vaccination Decision
Appendix #6	Fact Sheet - Sample Letter to Parents
Appendix #7	Fact Sheet - Frequently Asked Questions about Hepatitis B and Meningitis Immunization
Appendix #24	Venn Diagram Exercise for Hepatitis B and Meningitis
Appendix #25	Suggested Answers to the Venn Diagram for Hepatitis B and Meningitis
Appendix #26	BLM - Giving Informed Consent

Sub-Task #4 The Students' Letters to their Parents

Each students will prepare a letter for his/her parents or guardians that will provide the following information about hepatitis B and Meningitis:

- signs/symptoms
- effects on the body
- transmission
- prevention
- his/her decision about getting the vaccinations, with supporting reasons.

Expectation Code	Learning Expectations
7p10	Identify the methods of transmission, the symptoms of sexually transmitted diseases (STDs) and ways to prevent them, specifically hepatitis B.
7p12	Explain the term abstinence/chastity as it applies to healthy sexuality.
7p16	Outline a variety of issues related to substance use and abuse (e.g., the impact of laws governing drug use).
7p17	Identify and categorize drugs as stimulants, depressants, and hallucinogens, including the vaccine as harmful or beneficial.
7p18	Apply a decision-making process to make informed choices regarding drug use.
7.2.6	Identify elements in their writing that need improvement, selectively using feedback from the teacher and peers.
7.2.7	Make revisions to improve the content, clarity and interest of their written work, using a variety of strategies.
7.2.8	Produce revised draft pieces of writing to meet identified criteria based on the expectations

Assessment Opportunities/Assessing Expectations

Peer evaluation: Working in groups of three, the students will read each other's letters and make constructive suggestions for improvement.

Teacher evaluation: The teacher will assess each student's letter, which will be sent to parents at the end of the unit.

Notes to Teacher

- Students should be aware of. Teachers may want to review with students how to structure a letter (see Appendix #32 – Format for a Personal Letter).
- Additional support should be provided to students and parents for whom English is not their first language (Refer to Appendix #8 – Translation Document).
- A Word Search Activity (Appendix #27) has been provided for the students to complete during the recovery period after immunization. It is important for the students to remain quietly seated for 15 minutes following their immunization so that the nurses can monitor them for any adverse events.

Teaching/Learning Strategies

1. The teacher will direct students to draft a letter to their parents/guardians using the paragraphs created in the previous lessons of this unit.
2. Instruct students to edit and proofread their letter.
3. Divide the class into groups of three. Within each group, each student will read the letters of the other students and make suggestions for improvement.
4. Ask students to review the corrections/comments made by their peers and make any final changes to their letters.
5. Collect the students' completed letters for final evaluation.
6. Send the students' letter to their parents, along with the following documents:
 - the Hepatitis B Immunization Consent Form (Appendix #27) and the Meningitis Immunization Consent Form (Appendix #28). (Ensure the students have signed the consent forms.)
 - the Fact Sheet – Frequently Asked Questions About Hepatitis B and Meningitis Immunizations (Appendix #7)
 - the Fact Sheet – Translation Document (Appendix #8)
7. Signed consent forms are to be returned to the school and collected by the teacher.

Appendices

Appendix #7	Fact Sheet – Frequently Asked Questions about Hepatitis B and Meningitis Immunization
Appendix #8	Fact Sheet – Translation Document
Appendix #27	Hepatitis B Immunization Consent Form
Appendix #28	Meningitis Immunization Consent Form
Appendix #29	Word Search Activity: Hepatitis B and Meningitis
Appendix #31	Word Search Solution: Hepatitis B and Meningitis
Appendix #31	Rubrics: Language Arts, Health and Physical Education

Appendices

Appendix #1

Fact Sheet – Introduction to Hepatitis B

Every year, about 150 people in Ontario get hepatitis B. The younger a person is when infected with hepatitis B, the greater the risk of carrying the virus for the rest of his or her life.

What is hepatitis B?

Hepatitis B is an infection of the liver that cannot be cured.

Of 100 people who get hepatitis B:

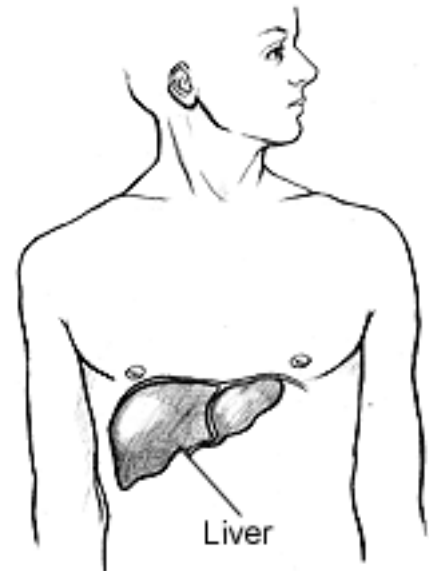
- most people will eventually recover
- about 10 people will carry the virus for the rest of their lives and be at risk of developing permanent liver damage, cirrhosis (scarring) of the liver, or liver cancer. Of these 10 people, one person will likely die from the disease

The importance of your liver

A healthy liver does the following:

- fights infections
- helps to stop bleeding
- aids in food digestion
- removes some waste products from your body
- stores energy for when you need it
- helps to make sex hormones and adrenaline

The damage that hepatitis B causes to the liver prevents it from carrying out these functions properly.



What are the symptoms of hepatitis B?

Hepatitis B is a "silent disease". Up to half of the people who get it never feel sick.

Those who do have symptoms may feel extremely tired, develop a fever, headache, joint pain, lose their appetite, have stomach cramps, and throw up. One of the main signs of hepatitis is jaundice, which is "yellowing" of the skin.

Symptoms may develop 45 to 160 days after exposure to hepatitis B.

What causes hepatitis B?

The hepatitis B virus (HBV) causes hepatitis B. This virus is found in the blood and other body fluids (such as semen, vaginal secretions, saliva and breast milk) of people who are infected with HBV.

How does hepatitis B spread?

People who are infected with hepatitis B can spread the disease to others, even if they do not have any symptoms. HBV spreads when an infected person's blood or body fluids enter a break in the skin or are absorbed through mucous membranes, such as in the mouth. This can happen through activities such as:

- having unprotected sexual contact with an infected person
- using a needle that someone else has used for injecting drugs, ear piercing, body piercing or tattoos
- sharing items that might have someone else's blood on them, such as toothbrushes, razors
- childbirth, from an infected mother to her baby

Although HBV spreads much like HIV (the virus that causes AIDS), HBV is much easier to catch than HIV is. HBV is over 100 times more concentrated in an infected person's blood.

HBV can also live in dried blood on surfaces outside the body for up to seven days at 25°C. Touching blood-contaminated surfaces or objects such as bandages, menstrual pads or mouth guards can transmit the virus.

Hepatitis B virus does not spread through sneezing, coughing, hugging, kissing or using the same dishes as an infected person.

Some people who catch hepatitis B carry the virus in their bodies for the rest of their lives and may infect others unintentionally for many years.

Protection from hepatitis B

To be protected against hepatitis B:

(1) get immunized with the hepatitis B vaccine

Immunization stimulates your body to produce antibodies against hepatitis B. If you are ever exposed to the hepatitis B virus, these antibodies will detect the virus and protect you from getting the disease. The hepatitis B vaccine is very safe and has been used since 1982. Once you have completed your immunizations, you usually will not require further immunization against hepatitis B.

(2) understand how HBV spreads, and avoid the activities that spread it

- practice abstinence or use a new condom each time you have sex
- avoid sharing any items that might have someone else's blood on them, such as:
 - needles
 - toothbrushes
 - razors
 - unsterile tattoo and body piercing tools
 - unsterile manicure and pedicure tools
 - sports water bottles
- do not touch other people's blood, even if it looks dry. (Remember, the virus can live in dried blood for up to a week.)

Appendix #2:

Fact Sheet – Introduction to Meningitis

What is Meningitis?

Meningococcal disease is an illness that can cause meningitis (inflammation of the tissue around the brain and spinal cord) or meningococemia (infection of the blood). This disease can cause severe long-term health complications or death. Infected people may experience hearing loss or kidney problems or require amputations.



What causes Meningitis?

The disease is caused by *Neisseria meningitidis* bacteria, of which there are several strains. Previously, the meningococcal C strain caused most of the disease in Ontario, but recently there has been an increase in the incidence of disease caused by groups Y and W-135

What are the symptoms?

Early signs can be similar to those of flu, making it hard to diagnose. Serious illness can develop quickly. There may be:

- vomiting
- drowsiness
- high fever
- stiff neck
- headache
- seizures
- joint aches, pain
- sensitivity to light
- a rash that does not fade under pressure

How does Meningitis spread?

The Meningitis bacteria live in an infected person's mouth, nose and throat secretions. The bacteria can spread from person to person through coughing, sneezing, kissing or using items that have been in contact with an infected person's saliva, such as:

- cups, water bottles, straws
- cigarettes
- food and utensils
- musical instruments
- toothbrushes
- lipstick



An infected person can spread these bacteria up to seven days before becoming ill with meningococcal disease.

Who is at risk?

People who have had **intimate or direct** exposure to a person with Meningitis disease within the seven days before the onset of symptoms are at risk of getting Meningitis.

Protection from Meningitis

To be protected against Meningitis:

(1) get immunized with the Meningitis vaccine (meningococcal A,C,Y,W-135 vaccine)

Immunization stimulates the body to produce antibodies against Meningitis. If you are ever exposed to the Meningitis bacteria, these antibodies will detect the bacteria and prevent the disease. The Meningitis vaccine is effective in 82 to 97 percent of those who receive it and the protection has been shown to last for at least five years, and possibly longer. It is recommended for the routine immunization of infants, children, adolescents and young adults. It is also important for the following:

- students living in residence or a dormitory
- household or close contacts of a person diagnosed with Meningitis
- anyone who does not have a functioning spleen

(2) understand how Meningitis spreads and avoid exposure to other people's saliva and respiratory secretions

(3) wash your hands often

Appendix #3

Fact Sheet – Medical Terms Glossary

Antibodies: proteins produced by the body in response to a specific **antigen**. The antibodies combine with that antigen and prevent it from causing illness

Antigen: a substance that the immune system recognizes as harmful and makes antibodies against it to prevent illness

Cirrhosis: a symptom of a disease in which the person has permanent scarring of the liver

Hepatitis: inflammation and damage to the liver

Immune system: the body's natural disease-fighting system. A healthy immune system is able to recognize invading bacteria and viruses and produce antibodies to destroy or disable them

Immunization: works by preparing the immune system to ward off a disease. Vaccines that prevent viral diseases contain weakened or killed virus. Vaccines that prevent bacterial diseases contain a small portion of the dead bacteria

Jaundice: a symptom of liver problems where a person's skin and the whites of their eyes appear yellow

Liver: a large organ in the upper abdomen that produces bile, which is needed to digest foods. The liver also removes waste products and worn-out cells from the blood, makes proteins, stores and processes fat, and breaks down drugs, alcohol and environmental toxins

Meningococcal Disease: includes meningococcal meningitis and meningococemia

Meningitis: an infection of the meninges, which are the tissues that cover the brain and spinal cord

Meningococcal meningitis: a severe form of meningitis

Meningococemia: an infection of the blood (blood poisoning)

Appendix #4

Fact Sheet – How Vaccines Prevent Disease

Immunization is the best protection against hepatitis B and Meningitis.

Most vaccine preventable diseases are caused by germs called viruses or bacteria.

Vaccines to prevent these diseases generally contain weakened or killed viruses or bacteria specific to the disease. Vaccines help your body recognize and fight these germs and protect you each time you are exposed to someone who has any of these diseases.

There are steps that your body goes through in fighting these diseases:

First A vaccine is given by a needle.

Next Over the next few weeks, your body makes antibodies and memory cells against the weakened or dead germs in the vaccine.

Then If you are exposed to the real disease and the germs invade your body, the antibodies will help destroy the germs and you will not become ill.

Finally Antibodies and memory cells stay on guard in your body for years after the vaccination to protect you from the real disease germs.

Adapted From: **Centres for Disease Control (CDC) Excerpt**
<http://www.cdc.gov/nip/publications/fs/gen/howvpd.htm> [Accessed
January 20, 2006]

Appendix #5

Fact Sheet – Making the Vaccination Decision

According to the *Health Care Consent Act, 1996*, a minor, regardless of age, can provide consent to treatment if:

- he/she is able to understand the relevant information to make a decision about the treatment
- he/she is able to understand reasonably foreseeable consequences of his/her decision

For consent to be informed:

- the person must have the **capacity to consent**
- the health practitioner must make **full disclosure of the benefits and risks** of the treatment and alternative courses of action
- the consent must be **voluntary**

Informed consent

In order to give informed consent, students need to do the following:

1. **Understand** the vaccines. The more the students know, the better they are able to make an informed decision about being immunized.
2. **Consider** the risks and benefits of allowing the vaccines into their bodies.
3. **Evaluate** if the vaccines are good for their health.
4. **Decide** if they will be vaccinated against hepatitis B and Meningitis.

To make an informed decision about hepatitis B vaccination, students need to work through the following steps.

1. **Understand** that the hepatitis B vaccine:
 - protects against hepatitis B and prevents severe illness and possible cirrhosis or liver cancer
 - contains inactivated hepatitis B virus. It does not contain live viruses or any blood products
 - stimulates the immune system to produce antibodies to the hepatitis B virus. These antibodies prevent them from developing hepatitis B disease if they are ever exposed to the actual virus
 - is effective in 90 percent of people. Individuals with normal immune systems do not usually require booster injections
 - is offered free of charge to all grade seven students at immunization clinics provided by York Region Health Services, often within the school setting. Two shots are needed for complete protection, and are given in the fall and again in the spring

2. **Consider** the risks and benefits of hepatitis B vaccine.

Benefits

- from Subtasks #1 and #3, students should understand the role of the liver, how hepatitis B affects the liver, and how the vaccination protects them from hepatitis B and prevents them from passing it on to other people

Risks

- usually there are no side effects, but some people may experience tiredness, a slight fever, or a small red area at the injection site that may be tender for 24 to 48 hours
- the vaccine is not recommended for the following:
 - anyone who has allergies to yeast, mercury (thimerosal) and aluminum
 - those who have been previously vaccinated for hepatitis B
 - individuals who have already had hepatitis B
 - pregnant women
 - people who have a fever or the flu

3. **Evaluate** if this vaccine is good for their health.

- Which carries more risk - getting hepatitis B or getting the hepatitis B vaccine?
- Do the benefits of the vaccination outweigh any possible risks?

4. **Decide** whether to be vaccinated against hepatitis B.

Similarly, to make an informed decision about Meningitis vaccination, students need to work through the following steps.

1. **Understand** that the Meningitis vaccine:

- prevents the severe illness, long-term health complications or death that could result from Meningitis disease
- stimulates the immune system to produce antibodies to the Meningitis bacteria. These antibodies protect them from developing Meningitis if they are exposed to the actual bacteria
- cannot cause meningococcal disease because it does not contain live bacteria
- has a proven effectiveness in 82 to 97 percent of people for at least five years, and possibly longer
- is offered free of charge to all grade seven students at immunization clinics provided by York Region Health Services, often within the school setting. Only one shot is needed, and is given on the same day as the hepatitis B immunization in the spring clinic

2. Consider the risks and benefits of Meningitis vaccine.

Benefits

- from Subtasks #2 and 3, students should understand the serious long-term complications and/or death that can result from Meningitis infection, and that vaccination protects them from getting Meningitis and from passing it on to other people

Risks

- side effects may include redness, soreness or swelling at the site where the needle was given. Rarely, headache, tiredness and/or muscle aches may occur. Severe reactions are very rare
- individuals should consult with their physician before receiving this vaccine if they:
 - are pregnant
 - have a fever, have
 - have an allergy to aluminum, latex or any component of the vaccine
 - have had a reaction to a prior dose of the vaccine

3. Evaluate if this vaccine is good for their health.

- Which carries more risk - getting Meningitis or getting the Meningitis vaccine?
- Do the benefits of the Meningitis vaccination outweigh any possible risks?

4. Decide whether to be vaccinated against Meningitis.

Appendix #6

Fact Sheet – Sample Letter to Parents

Note: This letter was written by a grade seven student to his/her parents regarding the decision to be immunized against hepatitis B.

Date:

Dear Mom & Dad,

On November 6th the Gr. 7 students ofschool..... will be getting a Hepatitis B vaccination. However, it is yours and my choice if you would like me to get it.

Hepatitis B is a disease that causes swelling and scarring to the liver. Skin could turn yellow which is also known as Jaundice. Hepatitis B cannot be cured but can be prevented by immunization. This disease could also cause liver cancer.

Hepatitis B is very easy to catch – easier to catch than AIDS. Hepatitis B spreads through sexual contact and sexual bodily fluids. Hepatitis B can exist on surfaces outside the body such as: sharing straws and cups, mouth guards, dried blood, tattoos, sharing tooth brushes, sharing razors and drugs. Avoid sexual contact.

Pro things about Hepatitis B immunization: you will not get Hepatitis B from others, you will not give it others, it is free for Grade seven students, you will not give Hepatitis B through child birth.

Con things about Hepatitis B immunization: you must get a needle – symptoms are a fever, a red spot left on arm for approximately 2 days or you may feel tired for a few hours.

The benefits outnumber the risk of Hepatitis B vaccinations. I am choosing to get Hepatitis B vaccinations because I am making a choice to keep my future Hepatitis B free!

Appendix #7

Fact Sheet – Frequently Asked Questions About Hepatitis B and Meningitis Immunizations

A. Hepatitis B Immunization

When is the hepatitis B vaccine given?

Currently the vaccine is given in two doses: one needle in the fall and the second needle in the spring.

What if a student misses one of the hepatitis B needles?

If the student has at least one of the two needles at either the fall or the spring clinic, the series can be completed. Students have the option of getting the second dose at one of the monthly community clinics. Visit www.york.ca/immunization for clinic times, dates and locations.

Do students have to get the hepatitis B vaccine?

No, this is a voluntary program. The vaccine is not required in order to attend school.

Can the family physician give this immunization instead?

This free* hepatitis B vaccine is only available through this school immunization program. If parents want their doctor to give the injections, they must get a prescription for the vaccine and pay for it themselves. This program is for grade seven students only; younger and older siblings are not eligible.

Is the hepatitis B vaccine safe?

Yes, it has been found to be very safe and has been in use for several years.

Are there any side effects to the vaccine?

Usually there is no reaction. Some people may experience tiredness, a slight fever, or a small red area at the injection site that may be tender for 24 to 48 hours.

Who should not get the vaccine?

The following people should not receive this vaccine:

- pregnant women
- anyone with allergies to yeast, mercury (thimerosal) and aluminum
- anyone who has been previously vaccinated for hepatitis B
- anyone who has already had hepatitis B
- anyone who has a fever or the flu

B. Meningitis Immunization

* In some circumstances, free hepatitis B vaccine is offered to individuals deemed to be at high risk of contracting hepatitis B.

When is the Meningitis vaccine given?

Currently this vaccine is given in the spring immunization clinic on the same day that the students receive their second dose of hepatitis B vaccine.

What if the child is away the day the school clinic occurs?

Eligible children can receive the free Meningitis vaccine from their family physician.

Do students have to get the Meningitis vaccine?

No, this is a voluntary program, and the vaccine is not required in order to attend school.

Who else is eligible for this free vaccine?

In addition to grade seven students, teens between the ages of 15 and 19 are also eligible for this free vaccine. They may obtain it from their family physician.

This vaccine is also given to infants over 12 months of age as part of their routine immunization schedule.

Those who are not eligible for the free vaccine can purchase it through a pharmacy or their doctor and have it given by their doctor or other health care professional.

Note: If your child has already received this vaccine after the age of 12 months, another dose is not required.

Why did the government choose this age for eligibility for free immunization?

Eligibility recommendations for this vaccine were based on data gathered in Ontario and Canada on the age groups most susceptible to becoming infected with and spreading this disease. Often, new cases occur in early and late adolescence. Immunizing grade seven students will ensure they are protected before they move into the higher risk age group. As more children in the high-risk age groups are immunized against Meningococcal disease, there will be less transmission in the population, reducing the overall occurrence of this serious disease.

Is the vaccine safe?

Yes, it has been found to be very safe.

Are there any side effects to the vaccine?

Side effects may include redness, soreness or swelling at the site where the needle was given. Rarely, headache, tiredness and/or muscle aches may occur. Severe reactions, such as trouble breathing, swelling of the face or mouth, hives, or a fever over 39°C are very rare.

Who should not get the Meningitis vaccine?

Individuals should consult with their physician *before* receiving this vaccine if they:

- are pregnant
- have a fever
- have an allergy to aluminum, latex or any component of the vaccine
- have had a reaction to a prior dose of the vaccine

Is it safe to receive the hepatitis B and the Meningitis vaccine on the same day?

Yes. This does not decrease the effectiveness of either vaccine nor does it increase the risk of side effects.

C. Consent

Can students sign their own consent forms?

Parents and children should discuss the opportunity to receive these vaccines. Usually following discussion, both the parents and the students sign the consent form.

Under the *Health Care Consent Act (1996)* there is no minimum age for giving consent. According to this Act, a person is capable of consenting to immunization provided he/she understands the information required to make an informed decision, and appreciates the consequences of his/her decision. Their decision may differ from their parents. This means that if a parent wishes the student to be immunized and the student refuses, the immunization is not given. Likewise, a student may choose to be immunized even if a parent refuses.

The nurses who give the vaccinations must use their professional judgment to decide if a student understands the information enough to be able to give informed consent. Prior to receiving the needle, each student is asked if he/she understands the reasons for vaccination, has any questions and wants to be immunized.

To ensure it is safe to vaccinate the students, the nurses ask each one the following questions:

- Are you well today?
- Are you taking any medications today?
- Have you had any reactions to previous vaccines?
- Is there any chance that you could be pregnant?
- Are you allergic to yeast, mercury, latex or aluminum?
- Have you discussed this with your parents/guardians?

Please discuss these vaccinations with your children, and tell them about any previous reactions they may have had to a vaccine. Also, discuss any health concerns you may have about allergies or current medications, and your views on health and immunization. If your child is nervous about getting a needle, the following tips may help to reduce anxiety:

- make sure your child understands the reasons for vaccination
- remind your child to eat well on clinic day. (Students who have eaten well tend to cope better physically and emotionally)
- assure your child that the needle is very small; it may hurt a bit, but it is over very quickly

For more information about these immunizations, please call *Health Connection* at 1-800-361-5653, TYY 1-866-252-9333

Appendix #8

Translation Document

This is an important message. Take it to someone who can read English.

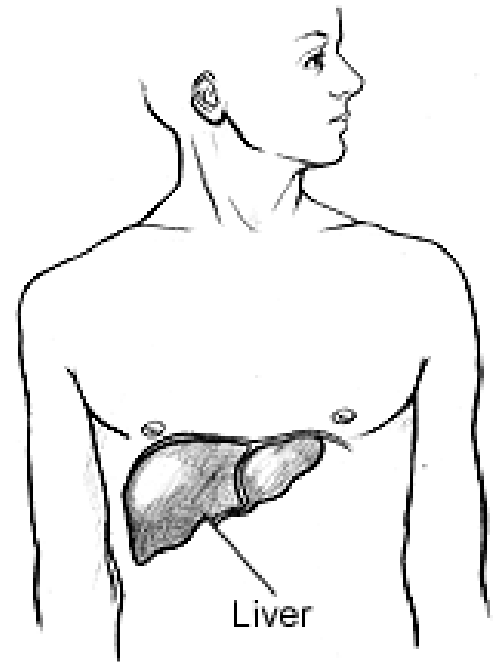
French	Ceci est un message important. Le remettre à quelqu'un qui peut lire l'anglais.
Spanish	Este es un mensaje sumamente importante. Lévelo a alguien que sepa leer inglés.
Chinese	這是一個重要訊息。請拿去向可以閱讀英語的人士詢問。
Greek	Αυτό είναι ένα σπουδαίο μήνυμα. Δώστε σε κάποιον που μπορεί να διαβάσει Αγγλικά.
Italian	Questo è un messaggio importante. Portatelo a qualcuno in grado di leggere in inglese.
Polish	To jest ważna informacja. Pokaż ją komuś kto zna język angielski.
Hindi	यह एक महत्वपूर्ण संदेश है। इसे किसी अंग्रेजी पढ़ सकने वाले व्यक्ति के पास ले जाओ।
Punjabi	ਇਹ ਇਕ ਮਹੱਤਵਪੂਰਨ ਸੰਦੇਸ਼ ਹੈ, ਇਸ ਨੂੰ ਕਿਸੇ ਅੰਗਰੇਜ਼ੀ ਸਭਣ ਚਲੇ ਬਿਖਵਤੀ ਤੋਂ ਪੜ੍ਹ ਲਵੋ।
Marathi	हा एक महत्वाचा संदेशा आहे. त्याला, जे इंग्लिश वाचुन शकतो त्या व्यक्ति कडे घेवुन जा.
Tamil	இது ஒரு முக்கியமான செய்தியாகும். இதனை ஆங்கிலம் வாசிக்கத் தெரிந்த ஒருவரிடம் எடுத்துச் செல்லவும்.
Urdu	یہ ایک اہم پیغام ہے اسے کسی ایسے شخص کے پاس لے جائیں جو انگریزی پڑھ سکتا ہو۔
Gujarati	આ એક મહત્વનો સંદેશ છે. તેને એવી વ્યક્તિ પાસે લઈ જવો, જે અંગ્રેજી શીખી શકતી હોય.
Farsi	این یک پیام بسیار مهم است، لطفاً این پیام را نزد کسی ببرید که بتواند زبان تکلمی را بخواند.
Vietnamese	Đây là một thông báo quan trọng. Hãy đưa đến người biết đọc tiếng Anh giúp.
Armenian	Այս կարեւոր պատգամ էրն է. զայն ար մէկընէ որ կրնայ անգլերէն կարողալ: Այս մի կարեւոր պատգամ է. այն ար մէկին որ կարող է անգլերէն կարողալ:
German	Dies ist eine wichtige Nachricht. Bringen Sie sie zu jemandem, der Englisch versteht.
Portuguese	Esta mensagem é muito importante. Peça a uma pessoa que saiba inglês para a ler.
Philipino	Ito ay isang mahalagang mensahe. Ipabasa ito sa sinomang marunong ng Inglis.
Somali	WAA FARIIN MOHIIM AH FADLAN U GUDBI QOF TARJUMI KARA.
Russian	Это важная информация. Обратитесь к человеку кто знает английский язык

Hepatitis B Disease

- is a serious infection of the liver
- cannot be cured
- develops in about 150 new people each year in Ontario, mostly in young adults
- for every 100 people who get hepatitis B
 - about 90 of them will eventually recover
 - about 10 will develop permanent liver damage, cirrhosis (scarring of the liver), or liver cancer. Of these 10 people, one person may die

Functions of the Liver

- fights infections
- helps stop bleeding
- digests food
- removes some waste products
- stores energy
- helps to make sex hormones and adrenaline

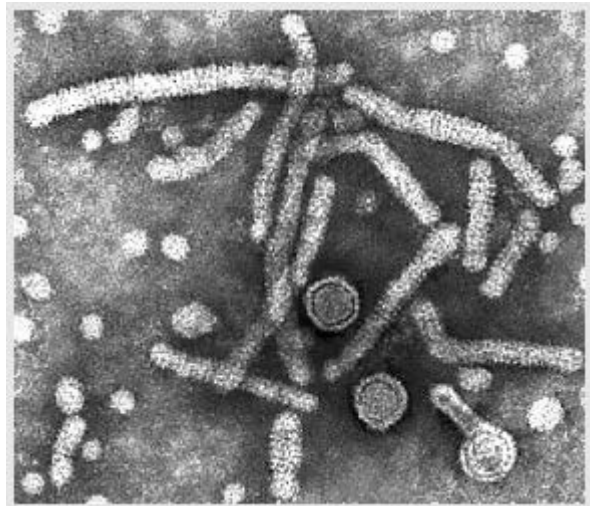


Symptoms of Hepatitis B Disease

- half of people who become infected with hepatitis B don't develop symptoms
- other people may develop fever, headache, joint pain, tiredness, tenderness in the upper abdomen and jaundice
- symptoms can last up to 3 months
- symptoms can develop 45 to 160 days after exposure to the virus

The Hepatitis B Virus

- lives in the blood and body fluids (semen, vaginal secretions, saliva and breastmilk) of a person who has hepatitis B
- can live in dried blood on surfaces outside the body for up to 7 days at 25°C
- spreads like HIV (the virus that causes AIDS)
- is easy to catch. It has a better ability to spread than HIV because it is over 100 times more concentrated in an infected person's blood



After becoming infected, some people carry the hepatitis B virus and are capable of infecting others for the rest of their lives.

How Hepatitis B Spreads

The hepatitis B virus can spread through:

- unprotected sex with a person who carries the virus
- using items that could have someone else's blood on them
- an accidental jab from a used needle
- someone else's infected blood coming in contact with your open cuts or scrapes
- touching dried blood
- childbirth and/or breastfeeding



Protection from Hepatitis B

- get the hepatitis B vaccine
- practice abstinence or use a new condom each time you have sex
- do not use items that could have someone else's blood on them, such as:
 - needles
 - toothbrushes
 - razors
 - unsterile tattoo and body piercing tools
 - unsterile manicure and pedicure tools
 - sports water bottles
- do not touch other people's blood, even if it looks dry. (Remember, the virus can live in dried blood for up to a week.)

Appendix #15

Hepatitis B Activity Worksheet

1. Join each word to its definition.

Cirrhosis	yellowing of the skin and eyes
Hepatitis	getting a vaccine to be protected against a disease
Immunization	permanent scarring of the liver
Jaundice	an important organ in our body
Liver	a disease that damages the liver

2. Use the following words to complete the statements below.

cirrhosis	liver	jaundice	virus
blood	symptoms	hepatitis B	vaccine

Hepatitis B is a disease of the _____. It causes swelling and _____ (scarring) of the liver, and prevents it from working properly.

Some people who get hepatitis B never develop any _____. Other people may develop _____, which means yellowing of the skin and eyes.

Hepatitis B is caused by a _____. The virus lives in the _____ and the sexual fluids (semen and vaginal fluids) of people with hepatitis B, as well as in their saliva and breastmilk.

You can get _____ if the blood or sexual fluids of someone who has hepatitis B get into your body.

You can protect yourself from hepatitis B by getting the _____ from the nurse when York Region Health Services comes to your school.

3. True or False

- | | | |
|--|---|---|
| a) Your liver helps to digest food, fight infections, and make hormones. | T | F |
| b) Hepatitis B is hard to catch. | T | F |
| c) Hepatitis B cannot be cured. | T | F |
| d) Hepatitis B can cause liver cancer in some people. | T | F |
| e) You can get hepatitis B from sitting next to someone who has it. | T | F |
| f) The hepatitis B vaccine is a good way to protect yourself from hepatitis B. | T | F |

4. Put a ✓ beside all the ways that a person could be exposed to the hepatitis B virus.

sharing toothbrushes	
hugging	
getting a body piercing	
coughing	
getting a tattoo	
using a public washroom	
having unprotected sex	
sneezing	
shaving with someone else's razor	
sharing needles to inject drugs	
touching dried blood	
sharing chewed gum	
sharing manicure tools	
sharing mouthguards	
sharing water bottles	

5. Circle the correct answer.

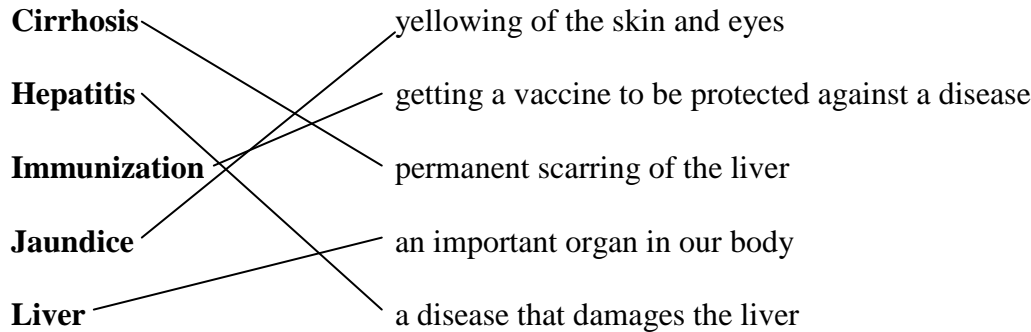
You can protect yourself from hepatitis B by:

- a) getting the hepatitis B vaccine
- b) avoiding activities that spread the hepatitis B virus
- c) both of the above

Appendix #16

Answers to the Hepatitis B Activity Worksheet

1. Join each word to its definition



2. Use the following words to complete the statements below.

cirrhosis **liver** **jaundice** **virus**
blood **symptoms** **hepatitis B** **vaccine**

Hepatitis B is a disease of the **liver**. It causes swelling and **cirrhosis** (scarring) of the liver, and prevents it from working properly.

Some people who get hepatitis B never develop any **symptoms**. Other people may develop **jaundice**, which means yellowing of the skin and eyes.

Hepatitis B is caused by a **virus**. The virus lives in the **blood** and the sexual fluids (semen and vaginal fluids) of people with hepatitis B, as well as in their saliva and breastmilk.

You can get **hepatitis B** if the blood or sexual fluids of someone who has hepatitis B get into your body.

You can protect yourself from hepatitis B by getting the **vaccine** from the nurse when York Region Health Services comes to your school.

3. True or False

- a) Your liver helps to digest food, fight infections, and make hormones. (T) F
- b) Hepatitis B is hard to catch. T (F)
- c) Hepatitis B cannot be cured. (T) F
- d) Hepatitis B can cause liver cancer in some people. (T) F
- e) You can get hepatitis B from sitting next to someone who has it. T (F)
- f) The hepatitis B vaccine is a good way to protect yourself from hepatitis B. (T) F

4. Put a ✓ beside all the ways that a person could be exposed to the hepatitis B virus.

sharing toothbrushes	✓
hugging	
getting a body piercing	✓
coughing	
getting a tattoo	✓
using a public washroom	
having unprotected sex	✓
sneezing	
shaving with someone else's razor	✓
sharing needles to inject drugs	✓
touching dried blood	✓
sharing chewed gum	✓
sharing manicure tools	✓
sharing mouthguards	✓
sharing water bottles	✓

5. Circle the correct answer.

You can protect yourself from hepatitis B by:

- a) getting the hepatitis B vaccine
- b) avoiding activities that spread the hepatitis B virus
- c) both of the above

Meningitis Disease

- is a serious but uncommon illness
- can cause
 - **meningitis** = infection of the tissues around the brain or spinal cord
 - or**
 - **meningococemia** = an infection of the blood
- may result in hearing loss, kidney problems, amputations of limbs, or death
- for every 100 cases, 5 – 15 people will die, even with treatment
- in Ontario, most cases of Meningitis disease occur in adolescents and young adults



Picture: www.meningitis-angels.org

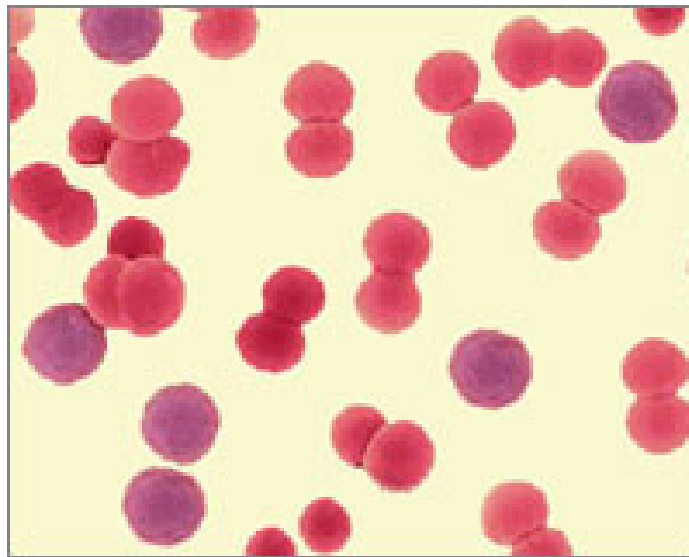
Symptoms of Meningitis Disease

Sudden onset of:

- fever/chills
- severe headache
- stiff or sore neck
- nausea and vomiting
- sometimes a rash
- body aches
- sensitivity to light

The Meningitis Bacteria

- are called *Neisseria meningitidis*, of which there are several types. Type C is one of the more common and deadly strains
- live in an infected person's saliva, and nose and throat secretions
- can be spread by an infected person for up to 7 days before he/she becomes ill



How Meningitis Spreads

The bacteria can spread:

- when an infected person sneezes or coughs
- by using items that have been in contact with an infected person's, mouth such as:
 - cups, water bottles, straws
 - cigarettes
 - food and utensils
 - musical instruments
 - toothbrushes
 - lipstick
- through kissing



Protection from Meningitis

- get immunized with the Meningitis vaccine
- understand how Meningitis spreads
- avoid exposure to other people's saliva and respiratory secretions
- wash your hands often

Appendix #22

Meningitis Activity Worksheet

1. Join each word to its definition.

Meningitis	cutting off a limb for medical reasons
Amputation	micro-organisms that cause disease
Bacteria	infection of the blood
Meningococemia	an infection of the lining of the brain and spinal cord

2. Use the following words to complete the statements below.

vaccine	adolescents	saliva	infection
bacteria	spread	seven	kissing

Meningitis is a disease that can cause _____ in the lining of the brain and spinal cord, or in the blood.

Meningitis is caused by _____. The bacteria live in an infected person's _____, and nose and throat secretions.

The bacteria can _____ by coughing, sneezing, _____ or sharing items that have been in contact with an infected person's mouth. An infected person can spread the bacteria for up to _____ days before becoming ill.

In Ontario, most cases of Meningitis disease are in _____ and young adults.

You can protect yourself from Meningitis by getting the _____ from the nurse when York Region Health Services comes to your school.

3. True or False

- | | | |
|---|---|---|
| a) Meningitis is a serious illness that can cause death. | T | F |
| b) Bacteria cause Meningitis. | T | F |
| c) Most cases of Meningitis occur in older adults. | T | F |
| d) Some people who get Meningitis need amputations because of the damage done to their arms or legs from the disease. | T | F |
| e) You can get Meningitis from kissing an infected person on the mouth. | T | F |
| f) The Meningitis vaccine protects you from Meningitis. | T | F |

4. Put a ✓ beside all the ways that the Meningitis bacteria can spread.

sharing toothbrushes	
hugging	
coughing	
mosquito bites	
sharing musical instruments	
sharing lip gloss	
sharing a straw with a friend	
sneezing	
shaving with someone else's razor	
sharing a fork	
touching dried blood	
sharing a cigarette	
sharing drinks	
kissing	

5. Circle the correct answer.

You can protect yourself from Meningitis by:

- a) getting the Meningitis vaccine
- b) avoiding activities that expose you to other people's saliva
- c) washing your hands often
- d) all of the above

Appendix #23

Answers to the Meningitis Activity Worksheet

1. Join each word to its definition

Meningitis cutting off a limb for medical reasons
Amputation micro-organisms that cause disease
Bacteria infection of the blood
Meningococemia an infection of the lining of the brain and spinal cord

2. Use the following words to complete the statements below.

Meningitis is a disease that can cause **infection** in the lining of the brain and spinal cord, or in the blood.

Meningitis is caused by **bacteria**. The bacteria live in an infected person's **saliva**, and nose and throat secretions.

The bacteria can **spread** by coughing, sneezing, **kissing** or sharing items that have been in contact with an infected person's mouth. An infected person can spread the bacteria for up to **seven** days before becoming ill.

In Ontario, most cases of Meningitis disease are in **adolescents** and young adults.

You can protect yourself by from Meningitis by getting the **vaccine** from the nurse when York Region Health Services comes to your school.

3. True or False

- g) Meningitis is a serious illness that can cause death. T F
- h) Bacteria cause Meningitis. T F
- i) Most cases of Meningitis occur in older adults. T F
- j) Some people who get Meningitis need amputations because of the damage done to their arms or legs from the disease. T F
- k) You can get Meningitis from kissing an infected person on the mouth. T F
- l) The Meningitis vaccine protects you from Meningitis. T F

4. Put a ✓ beside all the ways that the Meningitis bacteria can spread.

sharing toothbrushes	✓
hugging	
coughing	✓
mosquito bites	
sharing musical instruments	✓
sharing lip gloss	✓
sharing a straw with a friend	✓
sneezing	✓
shaving with someone else's razor	
sharing a fork	✓
touching dried blood	
sharing a cigarette	✓
sharing drinks	✓
kissing	✓

5. Circle the correct answer.

You can protect yourself from Meningitis by:

- a) getting the Meningitis vaccine
- b) avoiding activities that expose you to other people's saliva
- c) washing your hands often
- d) all of the above

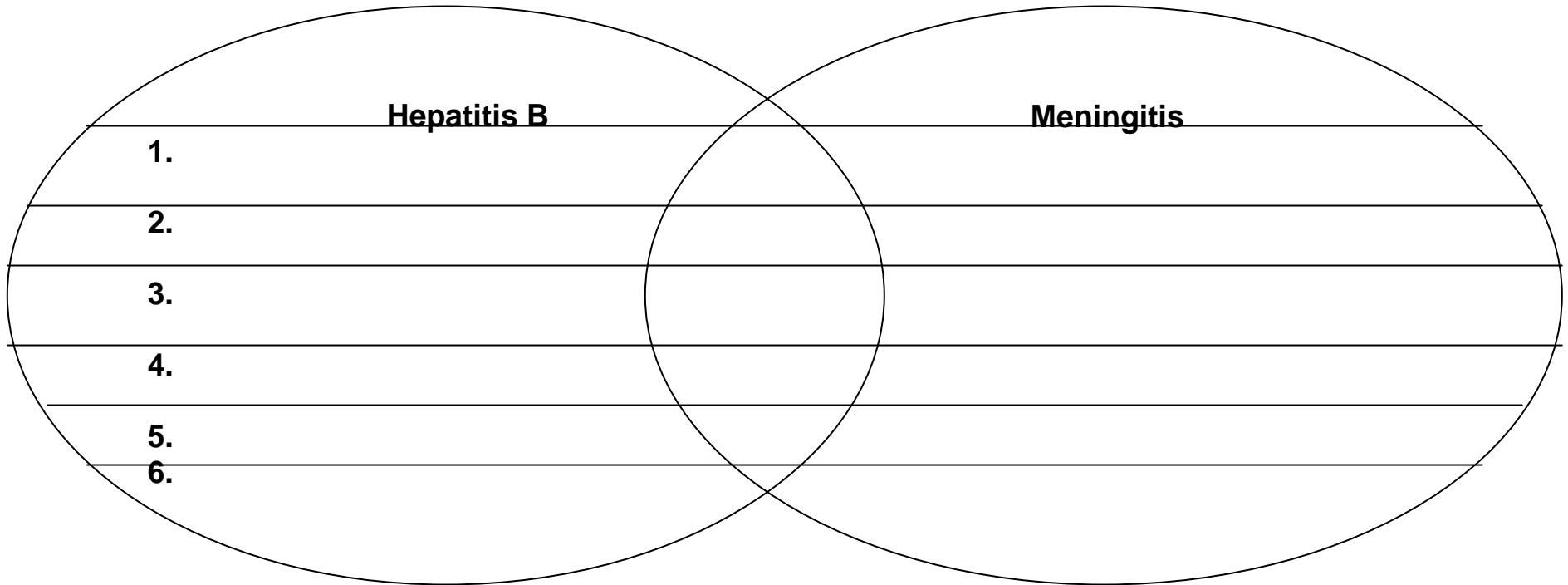
Appendix #24 BLM

Venn Diagram Exercise for Hepatitis B and Meningitis

For each disease, specify:

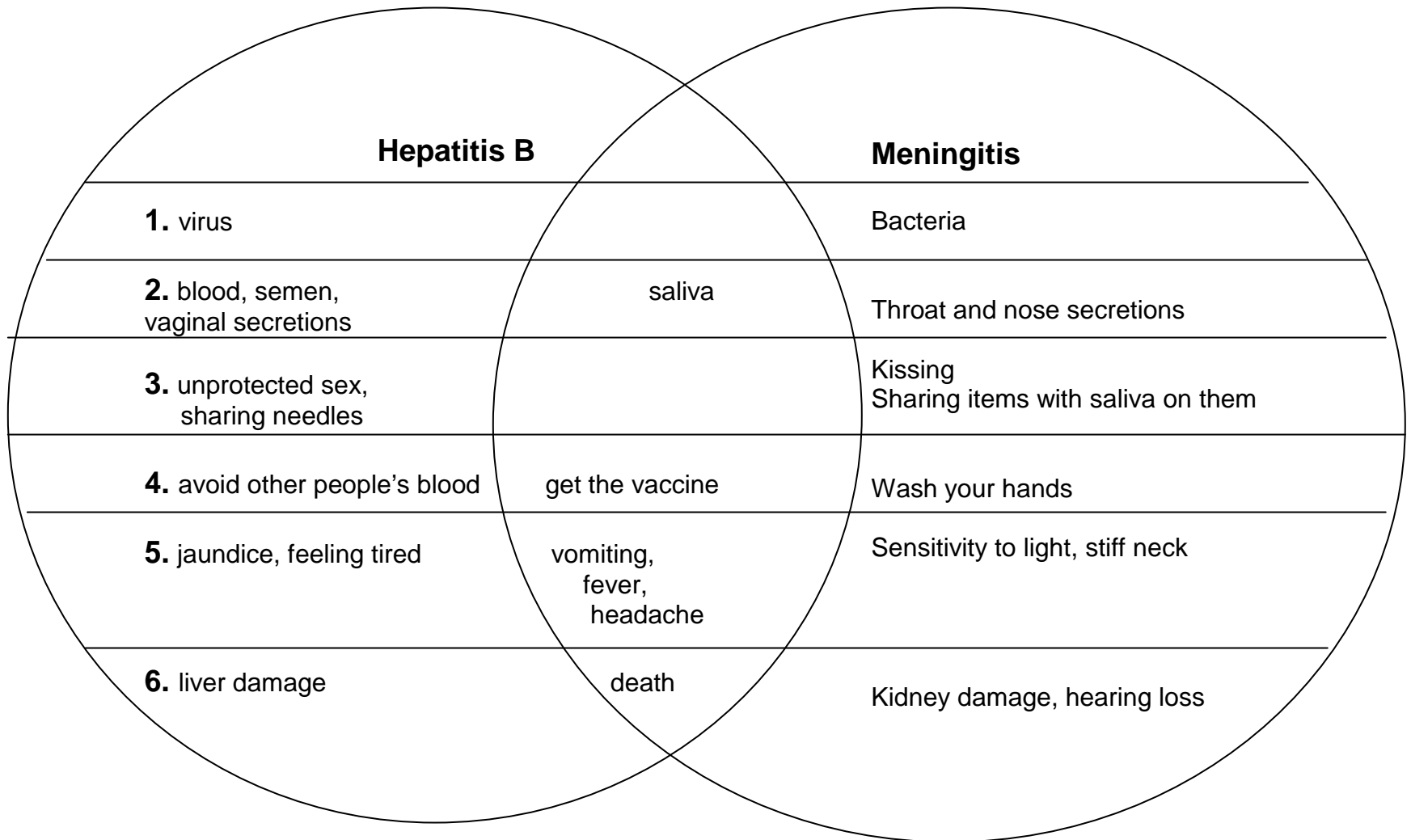
1. What kind of germ causes it (e.g. bacteria or virus)?
2. Where does the germ live in the body?
3. Two behaviours that can spread it
4. Two ways you can protect yourself
5. Five symptoms
6. Two possible outcomes

You should be able to find at least four things that Hepatitis B and Meningitis have in common.



Appendix #25 BLM

Suggested Answers to the Venn Diagram for Hepatitis B and Meningitis



Giving Informed Consent

1. **Understand** that the vaccines

- protect you from hepatitis B and Meningitis
- cannot give you the diseases

2. **Consider** the benefits and risks

- Benefits – prevents you from getting these diseases and spreading them to other people
- Risks – some people may experience tiredness, a slight fever, or a small red area at the injection site that may be tender for 24 to 48 hours

3. **Evaluate** if these vaccines are good for you

- Which carries more risk – getting the diseases or the vaccines?
- Do the benefits of vaccination outweigh any risks?

3. **Decide** if you will be vaccinated

Appendix #27 BLM

Visit www.york.ca/immunization to obtain the most current Hepatitis Consent Form

Hepatitis Disease and Vaccine Information Sheet

What is hepatitis B?

Hepatitis B is an infection of the liver caused by the hepatitis B (Hep B) virus. There is no cure for Hep B, but most people will recover from it. However, about 10 percent of those infected with the virus will carry it for life. They will be able to spread the virus to others, and may suffer permanent damage to their liver, or even death. Hepatitis B is the biggest cause of liver cancer.

There are about 150 cases of hepatitis B reported in Ontario each year, but there may be many more people with Hep B. You can get it and spread it to others without knowing it.

What are the symptoms of hepatitis B?

People with Hep B can become tired, feverish, lose their appetite, and sometimes develop jaundice (yellow skin and eyes).

How does hepatitis B spread?

The Hep B virus is found in the blood and other body fluids of an infected person. It spreads through sexual contact, sharing needles, and getting body/ear piercing or tattoos with dirty equipment. An infected mother can pass it to her child at birth.

You cannot get Hep B from coughing, hugging or using the same dishes as someone with Hep B.

How can hepatitis B be prevented?

Hepatitis B can be prevented through vaccination, and through avoiding contact with other people's blood and blood fluids.

The Ministry of Health and Long-Term Care provides a voluntary hepatitis B vaccination program for all Grade 7 students in Ontario. It is hoped that at this age, the students have not yet been involved in any behaviour that would expose them to the virus. Nurses from York Region Community and Health Services give students two doses of the vaccine during the school year.

Is the vaccine safe?

Yes. It has been used in Canada for more than 15 years and is one of the safest vaccines available. It might cause minor side effects – maybe redness, warmth or slight swelling where the needle went in, maybe tiredness or a slight fever for a day or so. More serious reactions are rare. However, if you experience trouble breathing, or develop swelling of your face or mouth, a fever over 39° C, hives or rashes within 15 days of getting the needle, report this to your doctor or to York Region Community and Health Services.

Who should not get the vaccine?

You should not receive this vaccine if:

- You are sick with a fever or infection worse than a cold. (Wait until you feel better)
- You have ever had a severe reaction to a previous dose of vaccine
- You have a severe allergy to aluminum, latex, yeast or thimerosal
- You are pregnant or breastfeeding. (Discuss your need for immunization with your doctor)

Appendix 28 BLM

Visit www.york.ca/immunization to obtain the most current Meningitis Consent Form

Meningococcal Disease and Vaccine Information Sheet

What is meningococcal disease?

Meningococcal disease is an illness that can cause meningitis (inflammation of the tissue around the brain and spinal cord) or meningococemia (infection of the blood). This disease can cause severe long-term health complications or death. Infected people may experience hearing loss or kidney problems or require amputations.

The disease is caused by *Neisseria meningitidis* bacteria, of which there are several strains. Previously, the meningococcal C strain caused most of the disease in Ontario, but recently there has been an increase in the incidence of disease caused by groups Y and W-135.

What are the symptoms of meningococcal disease?

There may be sudden onset of fever, severe headache, a stiff neck, nausea, vomiting and sometimes a rash. Serious illness can develop quickly. About 5 to 15 percent of people who become ill may die.

How does the disease spread?

The bacteria that cause meningococcal disease are found in an infected person's saliva, nose and throat secretions and droplets expelled into the air when they cough or sneeze. The bacteria can spread from person to person through kissing or using items that have been in contact with an infected person's mouth, such as:

- cups, water bottles, straws
- cigarettes
- food and utensils
- musical instruments
- toothbrushes
- lipstick

An infected person can spread these bacteria for up to seven days before becoming ill with meningococcal disease.

How effective is the meningococcal A,C,Y,W-135 vaccine?

The meningococcal A,C,Y,W-135 vaccine protects against types A, C, Y and W-135 of the *N. meningitidis* bacteria. This vaccine is effective in 82 to 97 percent of adolescents who receive it. The protection has been shown to last for five years and possibly longer.

Who should receive the vaccine?

Meningococcal A,C,Y,W-135 vaccine is approved for people between two and 55 years of age, and is publicly funded for Grade 7 students, persons at high risk and close contact of persons with invasive meningococcal disease. The vaccine is recommended for people who do not have a functional spleen (e.g. Sickle cell disease), those with weakened immune systems, and those with cochlear implants. Record your immunization on your yellow Immunization Card.

Who should NOT get the vaccine?

You should not receive this vaccine if:

- You are sick with a fever or infection worse than a cold. (Wait until you feel better)
- You have ever had a severe reaction to a previous dose of vaccine
- You have a severe allergy to aluminum, latex or Diphtheria Toxin
- You have received Menjugate within the past month
- You are pregnant or breastfeeding. (Discuss your need for immunization with your doctor)
- You have a history of Guillian Barre Syndrome

What are the side effects of the vaccine?

The most commonly reported side effects are redness, pain and swelling at the injection site that may last about a day. Apply ice to the site and/or take acetaminophen to help minimize pain and/or swelling. Some people may experience headache, fatigue or malaise. If you experience anything more severe than these symptoms, please notify your doctor or the public health unit.

For further information, please call York Region *Health Connection* at 1-800-361-5653, TTY 1-866-252-9933 or visit www.york.ca

Appendix #29

Word Search Activity: Hepatitis B and Meningitis

C A R R I E R N H A S P C P I C Q L
R X L E J V E U F H I M T T M R U P
N O I T N E V E R P T T B S M Y O I
C P V H D I C D S I I B N Z U G N C
O J K L R E C N A C T I H Z N O O X
S Y E N Y Z D C E F A V W I I G K C
E R U S O P X E A R P K R T Z N Q O
D J K A D I Z J B V E A C Z A I H N
D E A Y L G T Z N M H E E S T S Z S
A I A U J A Y A E S F L Y Z I S Z E
E S S T N L V N T N J M H T O I B N
R B N E H D I I I U P N U S N K A T
P L L L A N I V L T P L I V E R C D
S O J O G S I C O A K M K S I R T S
N O U I U R E M E M S X A O V O E F
L D T C U O S P I E R C I N G S R H
N I N S O O W G G Z E N C B U R I X
S V U S W U N W M H K J V U P W A G

Word Search List

AMPUTATION
BACTERIA
BLOOD
BRAIN
CANCER
CARRIER
CONSENT
DEATH
DISEASE

EXPOSURE
HEPATITIS
IMMUNIZATION
INFECTION
JAUNDICE
KISSING
LIVER
MENINGITIS
NEEDLE

PIERCINGS
PREVENTION
RISK
SALIVA
SHARING
SPREAD
SYMPTOMS
VACCINE
VIRUS

Appendix #30

Word Search Solution: Hepatitis B and Meningitis

C A R R I E R N + + S + + + I + + +
+ + + E + + E + + + I + + + M + + +
N O I T N E V E R P T + + + M + + +
+ + + + D I + + + + I + N + U G N +
+ + + L R E C N A C T I + + N O + +
+ + E N + + + C + + A + + I I G + C
E R U S O P X E A R P + R T Z N + O
D J + + + I + + B V E A C + A I + N
D E A + + + T + + M H E + S T S + S
A I A U + A + A E S F + Y + I S + E
E + S T N + V N T N + M + + O I B N
R B + E H D I I I U P + + + N K A T
P L + + A N I V L T P L I V E R C +
S O + + G S I C O A + M K S I R T +
+ O + I + R E M E + S + A + + + E +
+ D T + U + S P I E R C I N G S R +
+ I + S + + + + + + + + + + I +
S + + + + + + + + + + + + + + A +

**LANGUAGE ARTS RUBRIC:
VACCINATION PARENT LETTER**

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
KNOWLEDGE AND UNDERSTANDING	Demonstrates limited knowledge and understanding of hepatitis B and Meningitis	Demonstrates some knowledge and understanding of hepatitis B and Meningitis	Demonstrates considerable knowledge and understanding of hepatitis B and Meningitis	Demonstrates thorough knowledge and understanding of hepatitis B and Meningitis
THINKING	Uses planning, processing and critical/creative thinking processes with limited effectiveness	Uses planning, processing and critical/creative thinking processes with some effectiveness	Uses planning, processing and critical/creative thinking processes with considerable effectiveness	Uses planning, processing and critical/creative thinking processes with a high degree of effectiveness
COMMUNICATION	Expresses and organizes ideas and information with limited effectiveness	Expresses and organizes ideas and information with some effectiveness	Expresses and organizes ideas and information with considerable effectiveness	Expresses and organizes ideas and information with a high degree of effectiveness
	Uses conventions, vocabulary, and terminology of the discipline with limited effectiveness	Uses conventions, vocabulary, and terminology of the discipline with some effectiveness	Uses conventions, vocabulary, and terminology of the discipline with considerable effectiveness	Uses conventions, vocabulary, and terminology of the discipline with a high degree of effectiveness
APPLICATION	Makes connections within and between various contexts with limited effectiveness	Makes connections within and between various contexts with some effectiveness	Makes connections within and between various contexts with considerable effectiveness	Makes connections within and between various contexts with a high degree of effectiveness

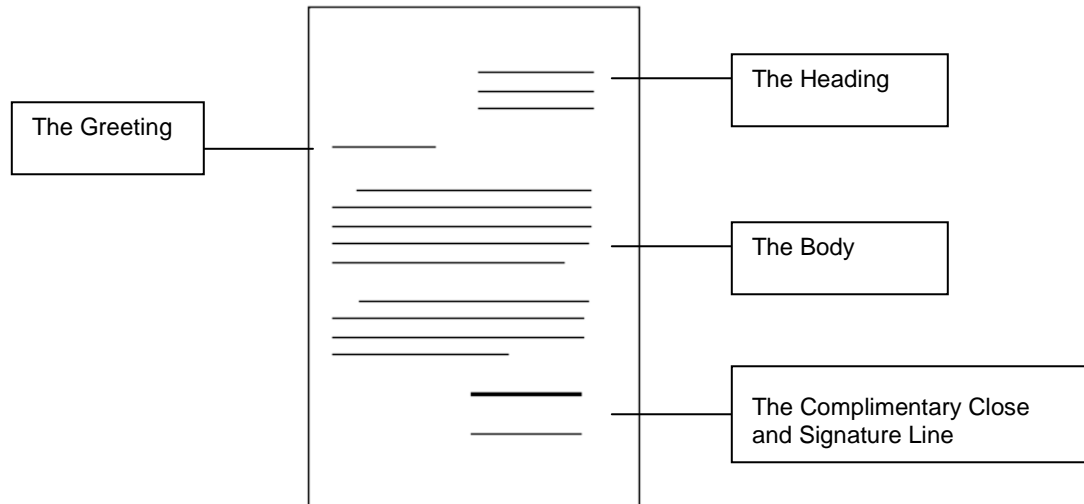


HEALTH AND PHYSICAL EDUCATION RUBRIC: VACCINATION PARENT LETTER

	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
UNDERSTANDING OF CONCEPTS	<p>Can identify few of the methods of transmission of STDs (specifically hepatitis B)</p> <p>Can outline few of the issues related to hepatitis B and Meningitis immunization</p>	<p>Can identify some of the methods of transmission of STDs (specifically hepatitis B)</p> <p>Can outline some of the issues related to hepatitis B and Meningitis immunization</p>	<p>Can identify most of the methods of transmission of STDs (specifically hepatitis B)</p> <p>Can outline most of the issues related to hepatitis B and Meningitis immunization</p>	<p>Can identify all or almost all of the methods of transmission of STDs (specifically hepatitis B)</p> <p>Can outline all or almost all of the issues related to hepatitis B and Meningitis immunization</p>
COMMUNICATION	<p>Can communicate with little clarity about the relationship between abstinence and hepatitis B</p>	<p>Can communicate with some clarity about the relationship between abstinence and hepatitis B</p>	<p>Can clearly explain the relationship between abstinence and hepatitis B</p>	<p>Can clearly and precisely explain the relationship between abstinence and hepatitis B</p>
ACTIVE PARTICIPATION	<p>Can apply a decision-making model to hepatitis B and Meningitis immunization with teacher assistance</p>	<p>Can apply a decision-making model to hepatitis B and Meningitis immunization with occasional teacher assistance</p>	<p>Can apply a decision-making model to hepatitis B and Meningitis immunization</p>	<p>Can apply a decision-making model to hepatitis B and Meningitis immunization</p>

Appendix #32

Format for a Personal Letter



The Heading

In a personal letter, the heading is indented to the middle of the page. It should contain the return address on the first two lines, followed by a third line with the date.

If the correspondents are familiar enough and the recipient knows the writer's address, or if the stationery is imprinted with the return address, then the return address may be omitted.

Example: 123 Main St.
 Newtown, ON L4P 2C3
 December 14, 2002

The Greeting

The greeting in a personal letter capitalizes the first word and any noun. It normally ends with a comma, though it might be all right to end with an exclamation point when writing to someone with whom you are very familiar and the emphasis is appropriate.

Example: Dear Aunt Miriam,

The Body

The body of the letter contains the main text. The block style (no indented paragraphs) is considered too formal for a friendly letter, so each new paragraph should be indented.

Skipping a line between paragraphs, especially in typed or printed copy, also helps the reader.

The Complimentary Close and Signature Line

The close and signature line begin in the center, at the same column as the heading.

The complimentary close begins with a capital letter and ends with a comma.

Skip from one to three spaces, and type the name of the person signing the letter. If the writer and reader are very friendly, or if the letter is handwritten in the same script as the signature, the signature line or the last name in the signature line may be omitted.

Sign the name in the space between the close and the signature line. Unless there is great familiarity between the correspondents, the signature should be in blue or black ink.

Example: Truly yours,
(Signature goes here)
Margaret Fong

Postscript

If your letter contains a postscript, begin it with **P.S.** and end it with your initials. Skip a line after the signature line to begin the postscript.