Grade 5
Human Organ Systems
Unit Plan
Profile of the Learner

- Students in this grade five class have completed grade four science and thus have a solid background in the needs and growth patterns of animals and plants
- These students are concrete operational thinkers who will ask many questions
- Student in this class will need to relate all lessons and assignments directly to personal experience in order to succeed
- Providing students with opportunities to work hands-on will increase the likelihood of success

Image of the Learner

- Many students in this class come from low socio-economic groups
- Students often come to school unprepared and/or hungry
- There is a high prevalence of learning and/or behaviour disabilities
- Many students struggle with self-esteem issues and act out as a way of seeking attention
- Many students in this class have poor reading and writing skills: often far below grade level
- Three students have IEP’s (behaviour, reading, writing)
- A large number of students will not take science beyond what is required at the secondary level
- Only a few students will pursue post-secondary education
- Students in this class have very high energy and require frequent opportunities to move around
- Class as a whole is majority First Nations

Topic Overview

As students continue to make choices in their lives, they need to know that choices they make about their bodies may have lifelong effects. This topic, Human Organ Systems, helps students understand that the body is made up of a number of organs and that these organs are parts of systems that can be affected by a variety of factors. Using models and simulations, students will learn the location, structure, and function of the major organs of the respiratory, circulatory, and digestive systems. Students will also develop an understanding of the importance of proper nutrition and exercise to the healthy functioning of organ systems.

When faced with choices that may have long-term consequences for their health, students need to have skills and attitudes that will help them make reasoned, informed decisions. They need to consider issues from many perspectives and to look for bias in the information they receive. Is it really the latest style of running shoe that makes a person a better runner or basketball player, or is it the physical health, dedication, and determination of the player? Does the latest fad diet really work? What other side effects might it have that could be less desirable? As students learn to look at things from different points of view and not just accept them at face value, they will become more skilled at making good and thoughtful decisions.
Human Organ Systems

Unit Context
This unit will be taught three times a week, for five weeks. It will be taught together with the data management and probability unit in mathematics. More specifically, students will be conducting a number of experiments for which they must record their observations and findings. Students will also be learning to read, interpret, and draw conclusions from the data they have collected.

This unit is best suited for the winter months, due to the nature and variety of activities it entails. Students in Northwestern Ontario are often prevented from going outdoors for recess or lunch due to the extreme cold. With a variety of labs, model constructions, inquiry projects, and physical activities, this unit is sure to interest students and ease cabin fever. Another reason that winter is an ideal time to teach this unit is that there are fewer extra-curricular activities taking place, so participation and learning are less likely to be interrupted. However, it will be important to note when hockey tournaments are scheduled, as a large number of students participate in hockey and often miss class on Friday in order to attend tournaments.

<table>
<thead>
<tr>
<th>Fundamental Concepts</th>
<th>Big Ideas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems and Interactions</td>
<td>Organ systems are components of a larger system (the body) and, as such, work together and affect one another.</td>
</tr>
<tr>
<td>Structure and Function</td>
<td>Organ structures are linked to their functions.</td>
</tr>
<tr>
<td></td>
<td>Systems in the human body work together to meet our basic needs.</td>
</tr>
<tr>
<td></td>
<td>Choices we make affect our organ systems and, in turn, our overall health.</td>
</tr>
</tbody>
</table>

Essential Questions
1. What makes our bodies function the way they do?
2. What are the body’s major organ systems and how do they work together?
3. How does the structure of an organ system relate to its function in the body?
4. How do choices we make affect our organ systems and, in turn, our overall health?
5. What are the effects of human activities and technological innovations on human health?

Enduring Understandings
Students will understand that...
1. The human body is made up of many systems and organs that work together.
2. Lifestyle choices impact our organ systems and, in turn, our overall health.
3. A balanced diet and regular exercise are necessary for a long and healthy life.
4. Modern technology can improve our health and quality of life, however, some technologies can harm our health and quality of life.
Concept Map:

**Human Organ Systems**

- **Respiratory System**
  - consists of
  - lungs
  - trachea
  - diaphragm
  - are essential for
  - breathing
  - involves
  - inhaling
  - and
  - exhaling
  - oxygen
  - carbon dioxide

- **Digestive System**
  - consists of
  - stomach
  - small intestine
  - large intestine
  - are essential for
  - digestion
  - involves
  - converting
  - food
  - into
  - energy
  - and
  - nutrients

- **Musculoskeletal System**
  - consists of
  - bones
  - joints
  - muscles
  - are essential for
  - movement
  - involves
  - protection
  - support
  - vital organs
  - the body

- **Circulatory System**
  - consists of
  - heart
  - blood
  - blood vessels
  - are essential for
  - circulation
  - involves
  - transporting
  - blood
  - nutrients
  - oxygen
  - throughout
  - the body
  - support
  - the body

- **Nervous System**
  - consists of
  - brain
  - spinal cord
  - nerves
  - are essential for
  - communication
  - involves
  - signals
  - sent by
  - neurons
  - between
  - the brain
  - and
  - the body
### Overall Expectations

1. analyze the impact of human activities and technological innovations on human health;
2. investigate the structure and function of the major organs of various human body systems;
3. demonstrate an understanding of the structure and function of human body systems and interactions within and between systems.

### Specific Expectations

#### 1. Relating Science and Technology to Society and the Environment
1.1 assess the effects of social and environmental factors on human health, and propose ways in which individuals can reduce the harmful effects of these factors and take advantage of those that are beneficial
1.2 evaluate the effects, both beneficial and harmful, of various technologies on human body systems, taking different perspectives into account

#### 2. Developing Investigation and Communication Skills
2.1 follow established safety procedures for physical activities
2.2 use scientific inquiry/experimentation skills to investigate changes in body systems
2.3 design and build a model to demonstrate how organs or components of body systems in the human body work and interact with other components
2.4 use appropriate science and technology vocabulary, including circulation, respiration, digestion, organs, and nutrients, in oral and written communication
2.5 use a variety of forms (e.g., oral, written, graphic, multimedia) to communicate with different audiences and for a variety of purposes

#### 3. Understanding Basic Concepts
3.1 identify major systems in the human body
3.2 describe the basic structure and function of major organs in the respiratory, circulatory, and digestive systems
3.3 identify interrelationships between body systems
3.4 identify common diseases and the organs and/or body systems that they affect

### Objectives for Teaching the Topic

By the end of this unit, students will be able to
- Identify the five major organ systems (respiratory, circulatory, digestive, musculoskeletal and nervous system) explain their function, location, and connection to other systems
- Design and build models which demonstrate a system’s function and/or illustrate its primary components
- Explain how the brain exerts control over all other organs of the body
- Explain how the heart acts as a pump for the entire body
- Explain that the role of the lungs is to take in oxygen and get rid of carbon dioxide
- Explain how muscles, bones and joints work together to facilitate movement
- Identify some common diseases and the parts of the body they generally affect
- Identify social and environmental factors that can affect their health both positively and negatively (e.g. smoking is not good for their health, sunshine is a good source of vitamin D but too much sun could cause skin cancer)
- Understand that diet and exercise affect the function and health of their organ systems
- Take care of their bodies by making healthy decisions about nutrition and exercise
## Human Organ Systems

### Unit Plan

### Schedule of Lessons

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Learning Objective(s)</th>
<th>Learning Activities</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Introductory Lesson Introduction to the Human Body</td>
<td>• Students will demonstrate their prior knowledge of the human body and the diseases and disorders that affect it • Students will be able to identify the five main organ systems that will be covered in the unit: respiratory, circulatory, nervous, digestive and musculoskeletal</td>
<td><strong>Pre-Assessment Activity:</strong> In pairs, students will play the “Body Battle” barrier game (Appendix A). Following the game, students will discuss, as a class, the body parts they used and types of diseases and disorders that might attack those parts in real life. <strong>Video:</strong> As a class, students will watch National Geographic’s “Human Body 101” video. Following the video, students will list the organs and organ systems they remember from the video. <strong>Introduction to the Unit:</strong> Teacher will introduce the unit, and explain the “Awareness Campaign” culminating task (Appendix B). <strong>Body Map:</strong> Teacher will introduce the body map and allow students time to trace and cut-out their bodies.</td>
<td>• Teacher will collect students’ game sheets to assess their prior knowledge of human body systems • Teacher will lead a discussion following the “Body Battle” barrier game to assess students prior knowledge of diseases and disorders • Evaluation of students’ journal responses to the Question of the Day: Which human organ system do you think is the most important, and why?</td>
</tr>
<tr>
<td><strong>2</strong> Respiratory System Introduction to the Respiratory System</td>
<td>• Students will be able to identify the main parts of the respiratory system: nose, mouth, lungs, trachea, bronchi, and diaphragm and their location within the body • Students will be able to describe the basic structure and function of the major organs in the respiratory system • Students will use scientific inquiry/experimentation skills to investigate changes in the respiratory system</td>
<td><strong>Video:</strong> As a class, students will watch Kids Health.org’s “Respiratory System” video (4:37 mins). <strong>Body Map:</strong> After being introduced to the main parts of the respiratory system, students will add the system’s main organs to their body maps. <strong>Scientific Inquiry Activity:</strong> Working in pairs, students will use a piece of string to measure their partner’s chest after inhaling, and a second piece of string to measure after exhaling. Students will compare the lengths of the two strings and reflect on the results.</td>
<td>• Anecdotal notes based on teacher observation of students’ experiment and reflection • Evaluation of students’ journal responses to the Question of the Day: What causes the feeling of being out of breath?</td>
</tr>
<tr>
<td><strong>3</strong> Respiratory System Measuring Lung Capacity</td>
<td>• Students will be able to explain that the role of the lungs is to take in oxygen and get rid of carbon dioxide • Students will use scientific inquiry/experimentation skills to measure lung capacity and record the results</td>
<td><strong>Measuring Lung Capacity Lab:</strong> In groups of two or three, students will work together to build a lung capacity measuring device. Groups will use their device to test each members’ lung capacity. Groups will calculate each members’ capacity and record the results. Each group will present their results. As a class, students will work together to graph the results.</td>
<td>• Anecdotal notes based on teacher observation of students’ cooperation and experimentation • Evaluation of students’ journal responses to the Question of the Day: What are the benefits of having a large lung capacity?</td>
</tr>
<tr>
<td><strong>4</strong> Respiratory System Diseases and Prevention</td>
<td>• Students will be able to explain the effects of social and environmental factors on the respiratory system, and propose ways in which individuals can reduce the harmful effects of these factors and take advantage of those that are beneficial.</td>
<td><strong>Brainstorming Activity:</strong> As a class, students will work together to brainstorm a list of diseases and disorders, and social and environmental factors that affect the respiratory system. <strong>Research Activity:</strong> Working in groups, students will choose one of the diseases, disorders, or factors from the brainstorming activity to research. Using google safe search, groups will find out more about their disease, disorder, or factor and prepare an information poster to share with the class.</td>
<td>• Anecdotal notes based on teacher observation of students’ cooperation, research and presentation skills • Evaluation of students’ journal responses to the Question of the Day: How is the human respiratory system affected by pollution?</td>
</tr>
<tr>
<td>Human Organ Systems</td>
<td>Unit Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td>-----------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **5 Circulatory System**  
Introduction to the Circulatory System | • Students will be able to identify the main parts of the circulatory system: heart, blood, and blood vessels, and their location within the body  
• Students will be able to describe the basic structure and function of the major organs in the circulatory system  
• Students will be able to identify the interrelationship between the respiratory system and the circulatory system  
• Students will design and build a model to illustrate the primary components of blood  

**Video:**  
As a class, students will watch *Kids Health.org*’s “Heart and Circulatory System” video (6:15 mins).  
**Body Map:**  
After being introduced to the main parts of the circulatory system, students will add the system’s main organs to their body maps.  
**Blood Model:**  
Working independently, students will create a model of blood (in a clear plastic bottle), using water and yellow food coloring for the plasma, cheerios (dyed red) for the red blood cells, mini marshmallows for the white blood cells and purple pompons for the platelets. After creating their models, students will write a paragraph describing blood’s many components.  
• Anecdotal notes based on teacher observation of students’ independent work  
• A rubric will be used to assess students’ paragraph writing, and ability to communicate the components of blood.  
• Evaluation of students’ journal responses to the Question of the Day: How does the circulatory system work together with the respiratory system? |
| **6 Circulatory System**  
Measuring Heart Rate | • Students will use scientific inquiry/experimentation skills to investigate how their heart rate changes during different activities  

**Measuring Heart Rate Lab:**  
After learning how to check their own pulse, students will work with a partner to conduct an experiment to identify how fast the heart beats during different types of activities. Students will work together to conduct three trials for three different activities: lying down, walking, jumping jacks. Students will create a chart to record their heart rate after each activity.  
• Anecdotal notes based on teacher observation of students’ experiment and data chart  
• Evaluation of students’ journal responses to the Question of the Day: Does exercise make the heart beat faster? Why? |
| **7 Circulatory System**  
Diseases and Prevention | • Students will be able to explain the effects of social and environmental factors on the circulatory system, and propose ways in which individuals can reduce the harmful effects of these factors and take advantage of those that are beneficial.  

**Brainstorming Activity:**  
As a class, students will work together to brainstorm a list of diseases and disorders, and social and environmental factors that affect the circulatory system.  
**Research Activity:**  
Working in groups, students will choose one of the diseases, disorders, or factors from the brainstorming activity to research. Using google safe search, groups will find out more about their disease, disorder, or factor and prepare an information poster to share with the class.  
• Anecdotal notes based on teacher observation of students’ cooperation, research and presentation skills  
• Evaluation of students’ journal responses to the Question of the Day: What gives blood the ability to fight infections and diseases? |
| **8 Nervous System**  
Introduction to the Nervous System | • Students will be able to identify the main parts of the nervous system: brain, spinal cord and nerves, and their location within the body  
• Students will be able to describe the basic structure and function of the major organs in the nervous system  

**Video:**  
As a class, students will watch *Kids Health.org*’s “Brain and Nervous System” video (3:36 mins).  
**Body Map:**  
After being introduced to the main parts of the nervous system, students will add the system’s main organs to their body maps.  
**Mind-Benders**  
As a class, students will look at different images and information on the SmartBoard, which demonstrate how everyone’s brain sees and processes information differently. Students will also look at brain teasers, logic puzzles and riddles.  
• Anecdotal notes based on teacher observation of student participation  
• Evaluation of students’ journal responses to the Question of the Day: Why do you think the nervous system is also called the information system? |
<table>
<thead>
<tr>
<th><strong>Human Organ Systems</strong></th>
<th><strong>Unit Plan</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>9 Nervous System</strong> The Brain</td>
<td><strong>Brainstorming Activity:</strong> As a class, students will work together to create a list of diseases, disorders, and social and environmental factors that affect the nervous system and a list of ways in which individuals can reduce the harmful effects of these factors and take advantage of those that are beneficial. <strong>Brain Model:</strong> Working independently, students will use coloured play dough to create a model of the brain. Students will label the various parts of their model and present it to the teacher.</td>
</tr>
<tr>
<td><strong>10 Nervous System</strong> The Five Senses</td>
<td><strong>Senses Challenge:</strong> As a class, students will complete the BBC’s “Senses Challenge” on the classroom SMART board. <strong>Taste Experiment:</strong> Working in pairs, student will take turns giving each other slices of potato, apple, pear, carrot, and honeydew melon to taste and identify. Students will taste each item three times: once with their eyes closed, once with their eyes closed and their nose plugged, and once using all our their senses. After each tasting, students will record what they think each food is. Following the experiment, students will analyze their results and draw conclusions about how the senses work together.</td>
</tr>
<tr>
<td><strong>11 Musculoskeletal &amp; Skin Systems</strong> Muscles and Bones</td>
<td><strong>Video:</strong> As a class, students will watch Kids Health.org’s “Bones” (5:10 mins), and “Muscles” (5:49 mins) videos. <strong>Body Map:</strong> After being introduced to the main parts of the musculoskeletal system, students will add the system’s main parts to their body maps. <strong>Arm Model:</strong> Working independently, students will build a model of an arm to show how the skeletal, muscular and nervous system work together. Students will label the various parts of their model and present it to the teacher. <strong>Video:</strong> As a class, students will watch Kids Health.org’s “Skin” (6:28 mins) video. <strong>Skin Model:</strong> As a class, students will create an edible model of skin using marshmallows for the subcutaneous layer, red gelatin for the dermis layer, fruit leather for the epidermis, and licorice for the hair. <strong>Scientific Inquiry Activity:</strong> Working in pairs, students will make a Von Frey device to measure their skin’s detection threshold. Students will record their findings in a data table.</td>
</tr>
<tr>
<td><strong>12 Musculoskeletal &amp; Skin Systems</strong> The Body’s Largest Organ</td>
<td><strong>Anecdotal notes based on teacher observation of students’ participation and contribution during the brainstorming activity</strong></td>
</tr>
</tbody>
</table>

**Question of the Day:** If you had to choose to lose one of your senses which would it be and why? **Question of the Day:** What are some exercises you could do to keep your muscles strong and healthy? **Question of the Day:** Why is it important to protect your head when playing sports? **Question of the Day:** What would life be like without skin? **Question of the Day:** Why is it important to keep your muscles strong and healthy? **Question of the Day:** What would life be like without skin?
<table>
<thead>
<tr>
<th>13</th>
<th>Digestive System</th>
<th>Introduction to the Digestive System</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Students will be able to identify the main parts of the digestive system: esophagus, stomach, small intestine and large intestine, and their location within the body.</td>
<td>Video: As a class, students will watch <em>Kids Health.org</em>'s &quot;Digestive System&quot; video (5:09 mins).</td>
<td>• Anecdotal notes based on teacher observation of students' cooperation, research and presentation skills.</td>
</tr>
<tr>
<td>• Students will be able to describe the basic structure and functions of the major organs in the digestive system.</td>
<td>Body Map: After being introduced to the main parts of the digestive system, students will add the system's main organs to their body maps.</td>
<td>• A rubric will be used to assess students' stories.</td>
</tr>
<tr>
<td>• Students will use appropriate science and technology vocabulary to communicate the process of digestion in written form.</td>
<td>Research/Writing Activity: In groups of four, students will research one part of the digestive path, and then write a story about their part's role in the digestive process. Each group will cover a different part (mouth and teeth, esophagus, stomach, small intestine, liver and pancreas, and large intestine) and write their story from that part's point of view. Each group will present their story to the class.</td>
<td>• Evaluation of students' journal responses to the Question of the Day: How does food travel through your digestive system? Write a story describing the journey.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14</th>
<th>Digestive System</th>
<th>You Are What You Eat</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Students will be able to explain the effects of social and environmental factors on the digestive system, and propose ways in which individuals can reduce the harmful effects of these factors and take advantage of those that are beneficial.</td>
<td>Brainstorming Activity: As a class, students will work together to brainstorm a list of diseases, disorders, and social and environmental factors that affect the digestive system.</td>
<td>• Anecdotal notes based on teacher observation of students' participation and contribution during the brainstorming activity.</td>
</tr>
<tr>
<td>• Students will be able to identify healthy food, and use healthy meal planning strategies to prepare a well-balanced meal.</td>
<td>Meal Planning Activity: As a class, students will be introduced to <em>Canada's Food Guide</em>, and the terms: proteins, fats and oils, carbohydrates, vitamins, minerals and water. Working in groups of three or four, students will use <em>Canada's Food Guide</em> to design a well-balanced meal plan for one day.</td>
<td>• A checklist will be used to assess students' meal plans.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Evaluation of students' journal responses to the Question of the Day: Why is it important to eat breakfast?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15</th>
<th>Culminating Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Students will be able to explain the effects of social and environmental factors on human organ systems, and propose ways in which individuals can reduce the harmful effects of these factors and take advantage of those that are beneficial.</td>
<td>Awareness Campaign Presentations Students will present their awareness campaign (culminating task) to the class by briefly explaining their poster/brochure, and presenting their drama aspect.</td>
</tr>
<tr>
<td>• Students will demonstrate that they understand that choices we make affect our bodies and overall health.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Teaching and Learning Strategies

Students in this class will benefit the most from a unit of study that focuses on inquiry based learning, as well as collaborative learning. Hands-on learning will be integral to the success of this unit. Due to low reading levels, it will be important to incorporate visual stimuli and a word wall. Due to the energy levels of the class, incorporating physical activities will benefit those students who are bodily-kinesthetic learners. In order to meet the needs of the IEP students, technology such as Premiere Literacy, Kurzweil, word processing programs, and iPads will be incorporated. A daily learning log will be completed following each lesson. This learning log will consist of students answering a “question of the day”, as well as posing a question of their own. The questions posed will encourage students to think about the lesson provided and how it applies to their every day lives. Each lesson will also include a health and wellness component which will serve to educate students about preventable diseases and other health issues that are common in this area. By ensuring that each lesson in the unit has a “real life” application, students will be able to relate to the topics and therefore display more enthusiasm.

### Assessment and Evaluation Strategies

The assessment and evaluation strategies that will be used in this unit include:

1. **Pre-Assessment Task (see Appendix A):**
   A barrier game similar to battleship that will test students knowledge of human body systems and common diseases that affect them.

2. **Journals:**
   After each lesson, students will be asked to write a journal response to a question related to the topic of the lesson. Students’ journals will be used to evaluate what students are learning and the depth of their understanding. Students’ journal responses will help teachers identify areas of strength and need.

3. **Observation Record/Anecdotal Notes:**
   During inquiry activities, experiments, and independent projects, the teacher will record short, objective, notes describing students' performance, attitude, and behaviour. These notes will assist the teacher in building a rich portrait of each students’ progress and achievement.

4. **Rubrics:**
   Rubrics which consist of a set of achievement criteria and descriptions of levels of achievement will be used to assess performance tasks such as model construction, research and writing tasks. A rubric will also be used to assess the students’ culminating task (see Appendix B)

### Accommodations and Modifications

As noted in the image of the learner, there are 3 students with IEP’s in this class. Tarquin Titteferante has an IEP for behavioural issues, Jarome Jabic has an IEP for reading, and Hannah Humphries for writing. Tarquin has an Educational Assistant with him at all times as he is easily frustrated and can be violent if he feels like other students are picking on him. Tarquin is allowed to use a break card when he needs space, and will go to the library with his EA to complete his work. Jarome struggles with reading and is below grade level. It will be important to pair him with understanding classmates for group work and the culminating task. He excels artistically, so with the right partner he will succeed in the unit. Hannah is a bright young girl who freezes when she is asked to write something. She has been provided with a laptop to do all her writing activities, and is showing great improvement since this was introduced.
This unit will focus mainly on brief lessons with some form of activity complementing each activity. Students will refer to the textbook, *Science Everywhere 5* as required. As the entire unit is inquiry based, students will be learning about each major organ system while they participate in hands-on activities.

Other resources that will be used include:
- *Discovery Kids* magazine and website
- *National Geographic* magazines and website
- Assorted videos and read aloud books from *TumbleBook Library*
- *Kids Health.org* videos and website
- iPad applications:
  - *This is my body - Anatomy for Kids*
  - *Body Adventure with Captain Brainy-Pants*
  - *Dr. Frankenstein’s Body Lab*
  - *Kid Science: Amazing Human Body*
HUMAN BODY BATTLE

PRE-ASSESSMENT ACTIVITY

This pre-assessment activity is a barrier game similar to battleship.

Students will play the game in pairs, with one student acting as the attacker and the other acting as the healer. The attacker will place a small dot on four parts of the body that they want to attack. The attacker is only permitted to attack parts of the body that they are able to name.

The healer will attempt to heal the body by guessing the four parts that have been attacked. The healer will be allowed ten guesses and must write down all of their guesses.

If the healer is able to identify the four parts that have been attacked, they win. If they are unable to identify the four parts then their partner (the attacker) wins.

The game should be repeated so that each student gets a chance to be both the attacker and the healer.

As students are playing the game, the teacher will walk around and make notes on the language students are using to identify body parts.

After the game, the teacher will collect the students’ game sheets to further assess the body parts that students are familiar with. The teacher will also lead a discussion, where students describe some of the parts they choose during the game and the types of things that might attack those parts in real life. The teacher will then make note of the types of diseases and disorders that the students are familiar with.
Human Organ Systems
Attacker: ________________  Healer: ________________

HUMAN BODY BATTLE

Attacker:

Place a small dot (●) on the four parts of the body that you want to attack.

Only attack parts of the body that you can name.

Write the names of the parts that you attacked below.

Body Parts Attacked:
1. _________________________
2. _________________________
3. _________________________
4. _________________________

Your partner (the healer) will try to guess the parts of the body that have been attacked.

If they guess correctly say: “healed”

If they guess incorrectly say: “missed”

Your partner will get ten guesses.
If your partner is able to heal all four parts then he/she wins.
If your partner is unable to heal all four parts then you win.
Human Organ Systems

Healer: __________________________  Attacker: __________________________

HUMAN BODY BATTLE

Healer:

Your partner (the attacker) has attacked four parts of the human body. You will try to heal the body by correctly guessing which parts have been attacked.

If you guess correctly the attacker will say: “healed”

If you guess incorrectly the attacker will say: “missed”

Record all of your guesses below:

Missed
1. __________________
2. __________________
3. __________________
4. __________________
5. __________________
6. __________________
7. __________________
8. __________________
9. __________________
10. __________________

Healed
1. __________________
2. __________________
3. __________________
4. __________________

You will get ten guesses.
If you are able to heal all four parts then you win.
If you are unable to heal all four parts then your partner wins.
Culminating Task Description

**TASK:** With a partner create an awareness campaign for a disease or disorder that affects one of the major systems of the human body. There are two parts to this task:

1. You must create a poster and brochure that tells the class about the disease or disorder that you and your partner have chosen.

2. You will create a presentation about your disease or disorder. This presentation can be:
   - TV commercial
   - Pretend to interview with someone who has this disease/disorder
   - Drama skit
   - Teacher approved idea that you came up with

**THINGS THAT MUST BE ACCOMPLISHED / QUESTIONS THAT YOU HAVE TO ANSWER**

- identify the disease or disorder
- what major system does it affect?
- how/why does it happen?
- what does this disease/disorder look like?
- symptoms
- ways to prevent (if applicable)
- ways to treat
- well known people with this disease/disorder (how do they increase awareness?)
- why did you choose this disease/disorder?
## Culminating Task Rubric

### Human Organ Systems Awareness Campaign Culminating Task

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Knowledge and Understanding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Response to required questions</strong></td>
<td>Not all questions are answered. Very little detail provided in answers.</td>
<td>Most questions are answered and some detail is provided.</td>
<td>All questions are answered clearly with expected amount of detail.</td>
<td>All questions are answered with detail. Extra information is also provided.</td>
</tr>
<tr>
<td><strong>Thinking and Investigation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Layout of information</strong></td>
<td>Information is not well displayed and is missing details</td>
<td>Information displayed in unclear with little detail</td>
<td>Information displayed is clear with some detail</td>
<td>Information displayed is very clear and with great detail</td>
</tr>
<tr>
<td><strong>Communication Creativity</strong></td>
<td>Poster and Brochure show little creativity</td>
<td>Poster and Brochure show some creativity</td>
<td>Poster and Brochure show expected level of creativity</td>
<td>Poster and Brochure exceed expectations</td>
</tr>
<tr>
<td><strong>Application Making Connections</strong></td>
<td>Little or no connections to real world problems</td>
<td>Some connections to real world problems</td>
<td>Effective connections to real world problems</td>
<td>Excellent connections to real world problems</td>
</tr>
<tr>
<td><strong>Presentation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge and Understanding</strong></td>
<td>Is not presented at all</td>
<td>Is presented but is unclear</td>
<td>Is presented in a way classmates understand</td>
<td>Is presented clearly, is easy to understand and has extra information</td>
</tr>
<tr>
<td><strong>Information from research</strong></td>
<td>Presentation is incomplete and not well planned</td>
<td>Presentation is complete but lacks effective planning</td>
<td>Presentation is completed and well planned</td>
<td>Presentation exceeds expectations and is thoroughly planned</td>
</tr>
<tr>
<td><strong>Thinking and Investigation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Planning Skills</strong></td>
<td>Shows little creativity</td>
<td>Shows some creativity</td>
<td>Shows expected level of creativity</td>
<td>Is very creative and exceeds expectations</td>
</tr>
<tr>
<td><strong>Communication Overall creativity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Application Connection between Presentation and Research</strong></td>
<td>Presentation and facts gathered from research do not match</td>
<td>Presentation and facts gathered from research match, but are not clear</td>
<td>Presentation and facts gathered from research are clear and connect well</td>
<td>Presentation and facts gathered from research are well connected and exceed expectations</td>
</tr>
</tbody>
</table>
# Self Assessment Rubric

## The Human Organ Systems Awareness Campaign Self Assessment

<table>
<thead>
<tr>
<th></th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>How did I work with my partner?</td>
<td>I let my partner do most of the work. I didn’t help with the project much.</td>
<td>I did some of the work. My partner did bigger parts of the work.</td>
<td>I shared the work with my partner equally. We did good work.</td>
<td>I was a true team player. We both did our best work</td>
</tr>
<tr>
<td>Did we use our time appropriately?</td>
<td>We didn’t use our time appropriately, and were off task most of the time</td>
<td>We used time appropriately sometimes, and got off task easily.</td>
<td>We used of time appropriately most of the time, and were usually on task.</td>
<td>We worked hard to use our time appropriately and were always on task.</td>
</tr>
<tr>
<td>How did I do when other groups were presenting?</td>
<td>I wasn’t really paying attention, and didn’t learn about other diseases/disorders.</td>
<td>I paid attention during some of the presentations. I could tell you about some of the diseases/disorders but don’t remember any details.</td>
<td>I payed attention while other groups presented. I could tell you what diseases/disorders were presented, and give some details.</td>
<td>I payed close attention to the other groups. I could easily tell you about other diseases/disorders.</td>
</tr>
<tr>
<td>Our finished project...</td>
<td>Is incomplete, we didn’t answer all of the required questions.</td>
<td>Is mostly complete, we answered most of the questions, and gave some explanations.</td>
<td>Is complete, we answered all the questions and gave explanations for all.</td>
<td>Is very well completed, we answered all the questions, gave thoughtful responses and explanations.</td>
</tr>
</tbody>
</table>
References


