

# Grade 8 Cells and Systems Unit 2 Project: Cells, Tissues, Organs and Systems - Organ System and Disease

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## Scenario:

A new doctor's office is opening in the Edmonton area. You have been hired by a group of doctors to create a "public education" piece for use in their office. The product will focus on an organ system, how it works, a major disease of that system, and treatment.

There are **two** main components:

**Start:** Brainstorm ideas – make a decision on an organ system

**Component 1:** Research – gather and organize information

**Component 2:** Design – create your public education piece

## Component 1: Research

Each student will choose an organ system (e.g., circulatory, nervous, immune). You will also choose a disease of that system (or you might choose a disease first – and find out what organ systems are affected!)

Your research will be concentrated on the following areas:

1. A description of a **human organ system** –
  - a. What tissues/organs make up the system?
  - b. How does the organ system work (when it's healthy)?
  - c. Why is it important to the human body?
2. A **disease** of your choice that affects the organ or that is linked to the system you've described in part 1
  - a. Description (cause, symptoms)
  - b. Treatment/Prevention

Remember to do the following in your Research – it includes doing the following:

- a) A completed organizer (provided) of dot-jots summarizing your research (do **NOT** plagiarize\*)
- b) A properly formatted bibliography, citing all of the sources you used in your research (an organizer for the bibliography will also be provided)
- c) Variety and quality of sources – **NO "Wikipedia"** - use **AT LEAST 1 book (or video) and 3 internet sites.**

## Resources Ideas:

In School:

- Computer for Internet Research
- Public Library Books (including Encyclopedias)

Other Sources:

- Local Pharmacies
- Public Library
- Doctor/Nurse or other healthcare provider
- Interview a person with the illness or disease

## Component 2: Product Design

After you have completed your research, you will begin the design and completion of a Public Awareness product. This could be:

- ❑ a pamphlet
- ❑ magazine article
- ❑ Educational “Video” – Must be at least 2 minutes
- ❑ Poster Presentation
- ❑ PowerPoint (or Keynote) presentation
- ❑ website Page
- ❑ \_\_\_Other\_\_\_ (Mr. Kelso is open to ideas – contact me to discuss before you begin!)

*Consider the audience this product is meant for: individuals who have little/some knowledge of their illness/disorder – presented in simple but accurate terms. It must have the same information as listed in the research component:*

1. Organ System – organs, possibly tissues and cells
2. How the System Works (brief overview)
3. Disorder(s) or Disease(s) of the system
  - a. Description
  - b. Who does it affect?
4. Symptoms of the Disorder(s)
5. Treatment of the Disorder(s)
6. Summarize paragraph: How is a healthy system affected by this disease?

The product must also contain a minimum of **4 graphics (does apply to video as well)**.

### **Length:**

*As a guide: You should have at least one paragraph, for **each** section of information.*

**Your final product must include a bibliography, in proper format, listing all sources – including where you found the graphics used.**

**\*PLAGIARISM is copying, word for word, from another source. Using dot-jots to summarize your research will ensure that your final work is original. Your project will not be marked and will result in a complete redo of your final product.**

*Before you begin – we are going to:*

*a) Look at the project rubric*

*b) Brainstorm a set of “Success Criteria”- what needs to be done in order for this project to be successful?*

## Assessment and Evaluation: Organ System and Disease Project

Criteria	Level 1	Level 2	Level 3	Level 4
<b>Knowledge and Understanding: The Organ System</b>	Describes organ system and how it works with few details.	Begins to describe the organ system and how it works in a healthy body using some detail.	Describes the organ system and how it works in a healthy body in some detail.	Clearly describes with detail the organ system and how it works in a healthy body.
<b>Knowledge and Understanding: The Disease</b>	Describes a related disease, but is missing important facts about symptoms, treatment and/or prevention.	Describes a related disease – symptoms, treatment and/or prevention.	Describes a related disease – symptoms, treatment and/or prevention.	Clearly describes with detail a related disease – symptoms, treatment and/or prevention.
<b>Thinking and Investigation: Quality of Research</b>	Accesses information from only one source. Sources are of inconsistent quality (e.g., websites)	Accesses information from more than one resource. Sources are of inconsistent quality (e.g., websites)	Accesses information from a variety of resources (print, electronic) Sources are of good quality (e.g., reputable websites)	Accesses information from a wide variety of resources (print, electronic). Sources are of high quality (e.g., reputable websites)
<b>Thinking and Investigation: Recording of Information</b>	Copies main ideas from resources. Ineffective use of organizer. Fails to acknowledge sources of information. Does not provide a bibliography.	Summarizes some main ideas from resources in own words. Uses an organizer, but may be incomplete. Attempts to acknowledge sources of information. Bibliography incomplete.	Summarizes main ideas from resources in own words. Uses an organizer. Acknowledges sources of information using a well-formatted bibliography.	Reorganizes main ideas from resources into own words. Uses an organizer. Accurately acknowledges sources of information using a precisely-formatted bibliography.
<b>Communication of Required Knowledge</b>	Communicates info with little clarity and accuracy. Rarely uses vocabulary appropriate to their audience. Does not communicate effectively for purpose of project.	Communicates info with clarity and accuracy. Uses vocabulary appropriate to their audience. Beginning to communicate effectively for purpose of project.	Generally communicates info with clarity and accuracy. Usually uses vocabulary appropriate to their audience. Communicates effectively for purpose of project.	Consistently communicates info with clarity and accuracy. Consistently uses vocabulary appropriate to their audience. Communicates highly effectively for purpose of project.
<b>Application</b>	Makes some basic connections to demonstrate the affect of this disease on a healthy organ system but requires more detail.	Makes some basic connections to demonstrate the affect of this disease on a healthy organ system.	Demonstrates the affect of this disease on a healthy organ system.	Clearly demonstrates the affect of this disease on a healthy organ system.
<b>Overall Presentation</b>	Work demonstrates little organization. Frequent spelling and grammar errors. Design lacks effort/creative.	Work is somewhat organized. Errors in spelling and grammar. Design is somewhat creative but demonstrates some effort.	Work is organized. Minor errors in spelling and grammar. Creative design. Demonstrates good effort.	Work is carefully organized and polished. No grammatical, spelling errors. Highly creative design. Demonstrates significant effort.