

## **Assignment 4: Technology Integration Activity Design**

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## **Assignment 4: Technology Integration Activity Design**

### **Blueprint for Infectious Disease Blog and Research Assignment**

#### **Activity Description**

In this activity, students will pretend that they are a “mad scientist” who has been tasked with creating the deadliest disease known to humanity. To begin, students will need to conduct some research to gain an idea of what considerations may go into designing their made up disease. They must research two existing (or historical) diseases that they think are the deadliest and base their design off of their findings. They will then share their findings and made up disease with their peers through an online blog. Students will get the chance to comment on their peer’s blogs and access information about other diseases through hyperlinks and videos.

This activity is part of a larger unit where students will learn about the immune system and gain an understanding about how our bodies respond to the invasion of pathogens, what we can do to protect ourselves against pathogens and what happens if we cannot defend ourselves against them, which may lead to an epidemic and/or pandemic.

#### **Scope**

This learning activity will be conducted over several days and will be the culminating activity in this immune system unit. Students will conduct research, learning about infectious diseases and collaborate with peers in an online learning community.

#### **Pre-Requisites**

Students will be familiar with how to create a blog on Edublog. Students will understand the basic function of the immune system and how diseases spread.

## **Target Audience**

Grade 8 students

## **Learning Outcomes**

Students will:

- 1) Learn about the transmission, treatment, prevention, symptoms and historical outbreaks of various infectious diseases.

## **Digital Literacy Outcomes (Based on the [B.C. Curriculum Digital Literacy Framework](#))**

Students will:

- 1) Participate in a cooperative learning project in an online learning community.
- 2) Evaluate digital resources to do research in an effective and responsible manner.

## **Activity Materials**

- Computers (one per student)
- Internet Access

## **Digital Tools and Resources for Webpage:**

- [Edublog](#)
- Digital Files – Graphic Organizer, References Sheet, Rubric
- [Netiquette](#) Information
- Edublog [User Guide](#)

### Digital Tools and Resources for Students:

- [Edublog](#): Blogging platform designed specifically for education.
- [YouTube](#): students may choose to upload videos to help support their research.
- [Library Online Databases](#): Gale Science in Context and Worldbook.
- Images:
  - [Pexels](#)
  - [Pixabay](#)
  - [Wikimedia](#)
  - [Creative Commons](#)
- Websites:
  - [Centre for Disease Control](#)
  - [World Health Organization](#)
  - [Government of Canada A-Z Infectious Diseases](#)

### Assessments – Infectious Disease Assignment

Assessments	Weight (%)	Learning Outcomes being covered
Blog Post Content	50%	Learn about the transmission, treatment, prevention, symptoms and historical outbreaks of various infectious diseases. Evaluate digital resources to do research in an effective and responsible manner.
Graphic Organizer Notes & References Sheet	30%	Learn about the transmission, treatment, prevention, symptoms and historical outbreaks of various infectious diseases. Evaluate digital resources to do research in an effective and responsible manner.
Participation in Online Community	20%	Participate in a cooperative learning project in an online learning community.

## Activity Blueprint

Page	Topic	Objective(s)	Activities	Page Script	Resources
1	Introduction & Assignment Information	<p>To introduce students to the Infectious Disease Blog Assignment</p> <p>To develop digital literacy skills with regards to conducting research.</p> <p>To learn about the transmission, treatment, prevention, symptoms and historical outbreaks of various infectious diseases</p>	<p>Read</p> <p>Begin research &amp; fill out graphic organizer</p>	<p>You are a “mad scientist” who has been tasked with creating the deadliest disease known to humanity! Over the next few classes, you will be sharing your research and new disease with your peers in the form of blog posts. You will also be responsible for commenting on your peer’s blog posts or asking questions to enhance your learning.</p> <p><b>Objectives</b> Students will:</p> <ol style="list-style-type: none"> <li>1. Learn about the transmission, treatment, prevention, symptoms and historical outbreaks of various infectious diseases.</li> <li>2. Participate in a cooperative learning project in an online learning community.</li> <li>3. Evaluate digital resources to do research in an effective and responsible manner.</li> </ol> <ul style="list-style-type: none"> <li>• To ensure that you are creating appropriate blog posts and interacting with your peers in a collaborative and positive manner, check out the <b>Blog Post Guidelines</b> page.</li> <li>• If you need a refresher on how to create blog posts, check out the <b>Posting Review</b> page.</li> <li>• Before starting your research or posting on you blog, ensure that you have read the <b>rubric</b> on the <b>Resources page</b>. The rubric provides important information regarding how you will be assessed for this project.</li> </ul> <p><b>Day 1</b> To begin, you will need to conduct some research to have an idea of what considerations should go into designing your disease.</p> <ol style="list-style-type: none"> <li>1) Research <b>two</b> existing (or historical) diseases that you think are the deadliest.             <ol style="list-style-type: none"> <li>a. Minimum of 1 online database sources.</li> <li>b. Minimum of 2 websites.</li> <li>c. Complete the <b>references</b> chart. (see Resources page)</li> </ol> </li> <li>2) Write down your research <b>notes</b> (in your own words) in the <b>graphic organizer</b> provided (see Resources page).</li> </ol>	<p>Link to Blog Post Guidelines page</p> <p>Link to Posting Review Page</p> <p>Link to Resources page</p> <p>Link to Resources page Graphic Organizer References Chart</p>

		<p>To participate in a cooperative learning project in an online learning community.</p> <p>To develop digital literacy skills such as embedding media online.</p>	<p>Complete blog post #1</p> <p>Comment on two blogs</p> <p>Complete blog post #2</p> <p>Comment on two blogs</p> <p>Create new disease &amp; fill out graphic organizer</p> <p>Complete blog post #3</p>	<p><b>Day 2</b> Next, you will need to create a blog post to share your information with your classmates.</p> <p>1) Create a <b>blog post</b> that includes the following:</p> <ul style="list-style-type: none"> <li>a. Transmission, symptoms, prevention and history of <b>one</b> of your researched diseases.</li> <li>b. Embedded images and/or videos to supplement your writing.</li> <li>c. Answer the following questions: Why did you chose to research this disease? What makes this disease so deadly? What were some interesting facts that your learned about this disease?</li> <li>d. Provide a list of references in APA formatting (Including your embedded media).</li> </ul> <p>2) <b>Comment</b> on at least <b>two</b> of your peers posts. Things to think about: What did you learn? What questions do you have? Did they chose reliable sources for their information?</p> <p><b>Day 3</b></p> <p>1) Create a <b>blog post</b> that includes the following:</p> <ul style="list-style-type: none"> <li>d. Transmission, symptoms, prevention and history of your <b>other</b> researched disease.</li> <li>e. Embedded images and/or videos to supplement your writing.</li> <li>f. Answer the following questions: Why did you chose to research this disease? What makes this disease so deadly? What were some interesting facts that your learned about this disease?</li> <li>g. Provide a list of references in APA formatting (Including your embedded media).</li> </ul> <p>2) <b>Comment</b> on at least <b>two</b> of your peers posts. Things to think about: What did you learn? What questions do you have? Did they chose reliable sources for their information?</p> <p><b>Day 4</b> Inspired by your research, you will:</p> <ul style="list-style-type: none"> <li>1) Describe and explain how your “deadly disease” works by writing down your ideas in the <b>graphic organizer</b>.</li> <li>2) Your design needs to be “realistic” and creative!</li> <li>3) Explain why you chose the features (such as symptoms, form of transmission etc.) based on your research.</li> </ul> <p><b>Day 5</b> Finally, you will share your “deadly disease” information in a <b>blog post</b>.</p>	<p>Edublog Website – edublogs.org Graphic Organizer Notes</p> <p>Edublog Website – edublogs.org Graphic Organizer Notes</p> <p>Graphic Organizer Notes</p> <p>Edublog Website – edublogs.org</p>
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			Comment on two blogs	<p>1) Your post should include the following:</p> <ol style="list-style-type: none"> <li>Transmission, symptoms, prevention and history of your disease.</li> <li>Embedded images and/or videos to supplement your writing. You may choose to create your own video here.</li> <li>Answer the following questions: What makes this disease so deadly? What are some things that people should be aware of if they contract this disease?</li> </ol> <p>2) <b>Comment</b> on at least <b>two</b> of your peers posts. Things to think about: Do you think their disease is realistic? Is it going to be very deadly? Why or why not? What was something that you found interesting? Are there any similarities with your made up disease?</p>	Graphic Organizer Notes
2	Resources	To provide a space for students to gather resources to complete their research	Download Resources	<p>Here you will find the resources needed to complete this assignment.</p> <ol style="list-style-type: none"> <li>Graphic Organizer for your notes</li> <li>References Page</li> <li>Infectious Disease Project Rubric</li> </ol> <p>You may find these resources to be helpful in completing your research and posting on your blog:</p> <ul style="list-style-type: none"> <li>Creative Commons Images: <ul style="list-style-type: none"> <li><a href="#">Pexels</a></li> <li><a href="#">Pixabay</a></li> <li><a href="#">Wikimedia</a></li> <li><a href="#">Creative Commons</a></li> </ul> </li> <li>Websites: <ul style="list-style-type: none"> <li><a href="#">Centre for Disease Control</a></li> <li><a href="#">World Health Organization</a></li> <li><a href="#">Government of Canada A-Z Infectious Diseases</a></li> </ul> </li> </ul>	<p>Graphic Organizer References Sheet Rubric</p> <p>Pexels.com Pixabay.com Commons.wikimedia.org Creativecommons.org</p> <p>Cdc.gov Who.int <a href="https://www.canada.ca/en/public-health/services/infectious-diseases/a-infectious-diseases.html">https://www.canada.ca/en/public-health/services/infectious-diseases/a-infectious-diseases.html</a></p>
4	Blogging Guidelines	To provide students with guidelines to create blog posts that will allow them to be part of an online community.	Read Notes	<p>Here you will find some reminders for important guidelines to follow when creating a blog post and commenting on your peer's posts.</p> <p>Blogging Mechanics and Skills:</p> <ul style="list-style-type: none"> <li>All referenced media should be cited in APA format.</li> <li>Make connections (with links) to previous posts or comments within current post.</li> <li>Consistently embed media (pictures, audio, video) which supports the content of the post (e.g. use of visual metaphors, media resources from others to support main points of the post, to cater for different learning styles of your audience)</li> <li>Embed links to reinforce ideas (research articles).</li> </ul>	

				<ul style="list-style-type: none"> <li>• Blog design should be accessible for the audience (color contrast, layout, organizational infrastructure)</li> <li>• Create appropriate titles for your post</li> <li>• Check your spelling and grammar</li> <li>• Do not post any personal information</li> </ul> <p>Commenting:</p> <ul style="list-style-type: none"> <li>• Offer reflection on the overall post, not just expressing an opinion but adding to the discussion.</li> <li>• Address the writer in formal terms.</li> </ul> <p>Digital Citizenship:</p> <ul style="list-style-type: none"> <li>• Posts and comments should demonstrate an appreciation of different perspectives.</li> <li>• Make sure to effectively select media sources, including ethical use of Creative Commons media.</li> <li>• Follow appropriate <a href="#">netiquette</a>.</li> </ul>	<p>Netiquette Link - <a href="https://inside.ucumberlands.edu/downloads/students/Netiquette.pdf">https://inside.ucumberlands.edu/downloads/students/Netiquette.pdf</a></p>
5	Posting: Review	To review how to create an effective blog post.	Read and click on appropriate hyperlinks for instructions	<p>Here you will find information and helpful videos about the following:</p> <ol style="list-style-type: none"> <li>1) <a href="#">How to create a blog post</a></li> <li>2) <a href="#">How to embed videos</a></li> <li>3) <a href="#">How to add comments</a></li> <li>4) <a href="#">How to add images</a></li> </ol> <p>For more information. Please see the <a href="#">Edublog User Guide</a> .</p>	<p>Blog Post - <a href="https://help.edublogs.org/publish-new-post/">https://help.edublogs.org/publish-new-post/</a></p> <p>Embed Videos - <a href="https://help.edublogs.org/embed-videos/">https://help.edublogs.org/embed-videos/</a></p> <p>Add comments - <a href="https://help.edublogs.org/add-comment/">https://help.edublogs.org/add-comment/</a></p> <p>Add Images - <a href="https://help.edublogs.org/add-images/">https://help.edublogs.org/add-images/</a></p> <p>Edublog User Guide <a href="https://help.edublogs.org/videos/">https://help.edublogs.org/videos/</a></p>



## **Universal Design Considerations**

There are a number of factors that are considered important when designing an online activity to ensure that they take into consideration Universal Design for Learning (UDL) principles and are accessible for all students. According to the Centre for Applied Special Technology (CAST) (2020), some of these include the use of text, the use of colors and the use of different forms of media such as images, video and audio. In terms of the text considerations when making my website, it will be important that I choose a font style that is easy to read and that there is a sufficient contrast between the text and the background color (CAST). As such, I will choose a large size, simple font that has a high contrast from the background of my chosen theme. For this assignment, students will be required to make use of a graphic organizer, a references sheet and a rubric that I will create for them in Microsoft Word. Microsoft Word (2020) incorporates an Accessibility Checker tool that I can use to improve the accessibility of these documents. CAST also explains that it is important to provide alternatives to text based information. I will therefore, be incorporating the use of visuals to supplement my instructions as images can convey complex information, enhance understanding, and improve retention (CAST). I will also provide videos, where appropriate, to further enhance student accessibility. These videos will have closed captioning options and will provide visuals to improve student understanding.

When looking at the use of blog posts for this assignment, I will be using the blogging platform, Edublog. This platform has several built in accessibility tools such as the use of icons to explain functionality, the ability to customize themes and colors based on student preference and provides supplemental videos in the help section of the website. I will further consider UDL by offering students the opportunity to create a video as a way to demonstrate their understanding and embedding this video in their blog post. This will increase accessibility for those who experience challenges in the area of writing (CAST, 2020).

## References

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