Grade 10 Biology: BODY SYSTEMS AND DISEASES

Slide Deck - https://docs.google.com/presentation/d/13Uqb0ZAcZNgYy8z81-tL_wLYjANMKmAzW4Kw1Sjkojc/edit?usp=sharing

Curriculum Expectation(s) and Big Ideas and Concepts	
Curriculum Expectation(s):	**Big Ideas and Concepts:**
Part 1: Body Systems **2D-B1.** evaluate the importance of medical and other technological developments related to systems biology, and analyse their societal and ethical implications; **B2:** Investigate cell division, cell specialization, organs, and systems in animals and plants, using research and inquiry skills, including various laboratory techniques; **B2.7**→ use a research process to investigate a disease or abnormality related to tissues, organs or systems of humans **2P-B2**: Investigate cell division, cell specialization, and the organization of systems in animals, including humans, using various laboratory techniques. **B2.6**→ use scientific investigation skills to research health problems related to tissues, organ, or systems in humans **Part 2: Body System Interactions** **2D-B1.** analyse some current technologies or substances that have an impact on human tissues, organs, or systems, and evaluate their effects on human health **B3:** demonstrate an understanding of the hierarchical organization of cells, from tissues, to organs, to systems in animals and plants **B3.5**→ explain the interaction of different systems within an organism (e.g. the respiratory system brings oxygen into the body, and the circulatory system transports the oxygen to cells) and why such interactions are necessary for the organism's survival **2P-B3**: demonstrate an understanding of the hierarchical organization of cells, from tissues, to organs, to systems in animals, including humans **B3.5**→ describe the interaction of systems in the human body (e.g. the respiratory system brings oxygen into the body, and the circulatory system transports the oxygen to cells), and explain why these interactions are necessary for survival	**Analyze**: Case Studies - focusing on digestive, cardiac and respiratory systems. **Explore**: Body System Interactions

Tasks:
Follow Slide Deck - see also **Speaker Notes**: 1. Review of all body systems 2. Hook (Provocation - choose the provocation you wish to use) 3. Water case studies - problem solving and research - what is the pathogen? - Teacher places students in groups with a leader and then divides the class based on ability. If groups cannot do this, teacher can choose a few case studies and guide the class through the process (Answer Key) 4. Diseases caused by water 5. How body systems interact - use research organizer. 6. Assessment/evaluation - Exit Card
Accommodations/Modifications:
Big Idea Questions How does the body work? What happens when the body becomes ill? What diseases are caused by water? How do body systems work together?
Learning Goal(s): *(The Learning Goals are the Overall/Specific Expectations written in student friendly language for students to access. Post onto chart paper and review with students.)*
Students will problem solve through water contamination case studies and discover diseases caused by water and the signs and symptoms in humans. Students will describe how body systems work together to the benefit of the organism.
Materials:
Copies of: 1. Case Studies 2. Case Study Student Checklist 3. Research Organizer on How Body Systems Interact 4. Exit Card

Assessment/ Evaluation	Exit Card → includes metacognitive global competency
Reflection:	What did they learn?
Next Steps:	Occupations involving water
Student Background Information/Prior Knowledge	digestive, cardiovascular and respiratory system basic anatomy and physiology
Teacher Background Information/Prior Knowledge	American Lung Association - Floods and Water Damage