

Grade 10, 11, 12

Distance Learning Module 7: Week of: 5/18 - 5/22

Science Anatomy and Physiology - Modified from Unit #3 - Immune System

Targeted Goals from Stage 1: Desired Results

Content Knowledge:

1. Viruses and bacteria have different structures and processes, which has implications for the immune system as well as medical treatment and prevention approaches.
2. The major structures of the Immune System are: complement proteins, granulocytes, macrophages, dendritic cells, helper T cells, Killer T cells, B cells, plasma cells, and memory B cells. All of which work together and have specific structures that allow them to function in protecting the body from infection.
3. The immune system is responsible for allowing a person's body to fight off a viral or bacterial infection.
4. The human body has nonspecific defenses against infection.
5. Students will know the cause, symptoms, treatment, and relevant statistics associated with an infectious disease of choice (either bacterial or viral).
6. People who are immunocompromised can suffer and die from infections that typically do not severely impact the health of people with immune systems that are not compromised.

Vocabulary:

Pathogen, Capsule, Cell Wall, Plasma Membrane, Bacterial Chromosome, Ribosomes, Pilli, Binary Fission, Envelope, Capsid, Antigens, DNA/RNA, Lytic cycle, Portal of entry, Complement System, Granulocytes, Macrophages, Dendritic cells, Helper T cells, Killer T cells, Plasma Cells, Memory B Cells, Antigen, Antigen Presentation

Skills:

Conduct research to investigate, model, and communicate detailed information about a body system.

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Students will watch the last 25 minutes of the PBS documentary “Influenza 1918” and answer some questions that ask them to relate what happened then to what is happening with the coronavirus.	Link to the documentary #1 Link to the documentary #2 Link to the documentary #3 Video question	Video question should be finished and turned in via Google Classroom.
Tuesday: Students will read two documents, complete a flowchart depicting the events that occur when the immune system is fighting off a pathogen, and begin answering the immune system specific knowledge statements.	The Immune System - Overview The Immune System - In More Detail Immune System Cascade Flowchart Immune System Knowledge Statements Immune System Research Resources	Formal Check-in: Video Questions should be completed and students should have started either the flowchart or note taking part of the assignment.
Wednesday: Students will read two documents, complete a flowchart depicting the events that occur when the immune system is fighting off a pathogen, and begin answering the immune system specific knowledge statements.	The Immune System - Overview The Immune System - In More Detail Immune System Cascade Flowchart Immune System Knowledge Statements Immune System Research Resources	
Thursday: Students will conduct independent research on the subject of either bacteria or viruses as well as a bacterial or viral disease of their choice.	Immune System Knowledge Statements Immune System Research Resources	Formal Check-in: Flowchart and immune system notes should be complete. Students should also have started their independent research and note taking on bacteria/viruses and a disease of their choice.
Friday: Students will conduct independent research on the subject of either bacteria or viruses as well as a bacterial or viral disease of their choice.	Immune System Knowledge Statements Immune System Research Resources	Students should finish their independent research and note taking on bacteria/viruses and a disease of their choice. Complete notes will be submitted via Google Classroom.

Week's criteria for success (attach student checklists or rubrics): The "Immune System Knowledge Statements" document is the checklist students should use to gauge their research progress.

Supportive resources and tutorials for the week (plans for re-teaching): The teacher will hold live video help sessions Monday, Tuesday, Thursday, and Friday.