

Unit 5: Immune Response

NY State Science Standards: 5.2c, 5.2d, 5.2e, 5.2f, 5.2g, 5.2j

Common Core Learning Standards: RST 9.1, RST 9.2, RST 9.3, RST 9.4, RST 9.5, RST 9.6, RST 9.7, WHST 9.1, 9.2, 9.4, 9.6, 9.8, 9.9

****Links to all web activities are available at www.bellino.weebly.com****

Layer C – Basic Understanding (650 PTS)

- You must earn 650 points to complete Layer C and move on to Layer B
- You can earn the remaining points you need in each category using any combination of assignments including lecture notes, videos, textbook reading, graphic organizers, handouts, and internet activities
- All assignments will be graded based on an **ORAL QUIZ**.
- Depending on the assignment you will be graded on both the assignment and/or *an oral or reflection quiz*
- Any work that is not completed in class can be completed at home for homework.

Objectives: *By the end of this unit, I should be able to:*

1. Describe the various roles of the white blood cells in the immune response against pathogens and foreign substances. (5.2d)
2. Explain how the immune system protects against antigens associated with pathogens and foreign substances. (5.2c)
3. Identify the contents of a vaccination and explain the body's reaction. (5.2e, 5.2j)
4. Explain how the failure of the immune response causes specific diseases, such as AIDS and allergies. (5.2f, 5.2g)

1. MINI-LESSON – FLIP CLASSROOM: You will watch the videos and look through the PowerPoint presentations the night before class, take notes and be prepared with questions and to participate in discussions. (CCLS RST.9.1, CCLS RST.9.2, CCLS RST.9.6) **50pts each**

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|--------------------------------------------|------------|--------------|
| • Mini-Lesson 1: Overview of Immune System | DATE _____ | POINTS _____ |
| • Mini-Lesson 2: Immune Response | DATE _____ | POINTS _____ |
| • Mini-Lesson 3: Vaccines | DATE _____ | POINTS _____ |
| • Mini-Lesson 4: Allergies and HIV | DATE _____ | POINTS _____ |

OBJECTIVE 1: OVERVIEW OF IMMUNE SYSTEM

2. INFECTIOUS DISEASE READING AND GIST

100pts

Read and GIST pages 722-727. (CCLS RST.9.1)

3. IMMUNE CELLS IN ACTION VIDEO

50pts

Watch "Immune Cells in Action" on

<http://www.teachersdomain.org/resource/tdc02.sci.life.stru.immune/> and answer the following

questions: If our antibodies protect us from disease, then why do we keep getting colds? And how do you think vaccination works to protect you? (CCLS RST.9.4, CCLS RST.9.5)

4. BRAINPOP: IMMUNE SYSTEM**50pts**

Go to www.brainpop.com and login (Username: **environhs** Password: **brainpop**). Watch the “Immune system” video and take the **CLASSIC QUIZ**. E-mail the results (msbellinoyses@gmail.com). (CCLS RST.9.5)

5. CASTLE LEARNING: IMMUNE SYSTEM OVERVIEW REGENTS QUESTIONS**100pts**

Go to www.castlearning.com and login. Complete the assignment titled “OBJECTIVE 1: IMMUNE SYSTEM OVERVIEW”. Complete the castle learning reflection. (CCLS RST.9.4, CCLS RST.9.5)

OBJECTIVE 2: THE IMMUNE RESPONSE

6. IMMUNITY CARTOON`**100pts**

Create a cartoon showing how immunity occurs in the body. Make sure you include the following terms: white blood cell, antibody, pathogen, antigen, infect, immunity. (CCLS RST.9.4, CCLS RST.9.5)

7. DEFENSES AGAINST INFECTION READING AND GIST**100pts**

Read and GIST pages 728-733. (CCLS RST.9.1)

8. BRAINPOP GAME: IMMUNE SYSTEM DEFENDER**50pts**

Go to www.brainpop.com and login (Username: **environhs** Password: **brainpop**). Search “Immune System” and click on the Immune System Defender Game. Play the game and take the game quiz. E-mail the results (msbellinoyses@gmail.com). (CCLS RST.9.5)

9. CASTLE LEARNING: IMMUNE RESPONSE REGENTS QUESTIONS**100pts**

Go to www.castlearning.com and login. Complete the assignment titled “OBJECTIVE 2: IMMUNE RESPONSE”. Complete the castle learning reflection. (CCLS RST.9.4, CCLS RST.9.5)

OBJECTIVE 3: VACCINES

10. BRAINPOP: VACCINES**50pts**

Go to www.brainpop.com and login (Username: **environhs** Password: **brainpop**). Watch the “Vaccines” video and take the **CLASSIC QUIZ**. E-mail the results (msbellinoyses@gmail.com). (CCLS RST.9.5)

11. VACCINE WAR VIDEO AND QUESTIONS**50pts**

Watch the Vaccine War Video and answer the questions on the handout provided. (CCLS RST.9.2, CCLS RST.9.5)

12. CASTLE LEARNING: VACCINES REGENTS QUESTIONS**50pts**

Go to www.castlearning.com and login. Complete the assignment titled “OBJECTIVE 3: VACCINES”. Complete the castle learning reflection. (CCLS RST.9.4, CCLS RST.9.5)

OBJECTIVE 4: ALLERGIES AND HIV

13. ALLERGIES READING AND GRAPHIC ORGANIZER**100 pts**

Read the KidsHealth article on Allergies and create a visual (cartoon, flow chart) showing the sequence of events that occur in an allergic response.

(http://kidshealth.org/kid/ill_injure/sick/food_allergies.html#cat114) (CCLS RST.9.4, CCLS RST.9.5)

14. HIV/AIDS QUESTIONS AND GRAPH**100pts**

Complete the handout provided on HIV/AIDS treatment. (CCLS RST.9.4, CCLS RST.9.5)

15. BRAINPOP: ALLERGIES (PRODUCT & ORAL DEFENSE)**50pts**

Go to www.brainpop.com and login (Username: **environhs** Password: **brainpop**). Watch the “Allergies” video and take the **CLASSIC QUIZ**. E-mail the results (msbellinoyses@gmail.com). (CCLS RST.9.5)

16. BRAINPOP: AIDS (PRODUCT & ORAL DEFENSE)**50pts**

Go to www.brainpop.com and login (Username: **environhs** Password: **brainpop**). Watch the “AIDS” video and take the **CLASSIC QUIZ**. E-mail the results (msbellinoyses@gmail.com). (CCLS RST.9.5)

17. CASTLE LEARNING: ALLERGIES AND HIV REGENTS QUESTIONS**100pts**

Go to www.castlearning.com and login. Complete the assignment titled “OBJECTIVE 4: ALLERGIES AND HIV”. Complete the castle learning reflection. (CCLS RST.9.4, CCLS RST.9.5)

VOCABULARY ASSIGNMENT

T-cell	Memory Cell	Vaccine	Antigen	Antibody
Pathogen	White Blood Cell	Immunity	Engulf	Infection
Transplant	B-cell	Allergy	Resistance	Bacteria
Virus	Parasite	Phagocyte/Macrophage	Fungus	Antibiotic

ACTIVITY: VOCABULARY (PRODUCT, REFLECTION, & ORAL DEFENSE)*100pts**

Create a crossword puzzle using graph paper with definitions or other clues (CCLS RST.9.4)

Layer B – Analysis & Application (150 PTS)**LAB: INFECTIOUS DISEASE****75 pts**

(CCLS RST.9.3, CCLS RST.9.7)

LAB:**75 pts**

(CCLS RST.9.3, CCLS RST.9.7)

Layer A – Evaluation & Synthesis (200 PTS) (CCLS WHST 9.1, 9.4, 9.6,9.8, 9.9)**RESEARCH PAPER ON INFECTIOUS DISEASES****200pts**

Go to <http://kidshealth.org/parent/infections/>. Search through the list of infections. Choose one and write an informational research paper on the infections. Complete the handout first to help you organize your paper. Write in Google Drive and share with msbellinoyses@gmail.com.

PACING CALENDAR

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
			1/2 Go over unit 5 syllabus	1/3 Mini-Lesson 1 Discussion LAYER C – Objective 1 Activity
1/6 Mini-Lesson 2 Discussion Layer C – Objective 2 Activity	1/7 Mini-Lesson 3 Discussion Layer C – Objective 3 Activity	1/8 Mini-Lesson 4 Discussion Layer C – Objective 4 Activity	1/9 LAB: Spreading Infectious Diseases	1/10 Layer A Activity
1/13 Layer A Activity	1/14 Unit 5 Exam Review	1/15 Unit 5 Exam	1/16 Unit 4 Exam Test Corrections	1/17 UNIT 5 ALL LAYERS DUE