

Name: _____

Date: ___/___/___

Unit 4: Homeostasis and Body Systems

Standards: 1.1a, 1.1b, 1.1c, 1.1e, 1.2d, 1.2e, 1.3a, 5.2a, 5.2b, 5.2h, 5.2j, 5.3a, 5.3b

Common Core Learning Standards: 9.RIT.1, 9.RIT.3, 9.RIT.4, 9.RIT.5, 9.RIT.6, 9.RIT.8, 9.RIT.10, 9.W.1, 9.W.7, 9.W.9

Layer C – Basic Understanding (650 PTS MAX)

- 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** given by the teacher or peer.
- Depending on the assignment you will be graded on both the assignment and *an oral 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. Identify the various organs and functions of the human body systems. (1.1a, 1.1b, 1.1c, 1.2e, 1.3a)
2. Explain how these systems interact to maintain homeostasis. (1.3a, 1.1e)
3. Describe how malfunctions of homeostasis can result in disease or death. (1.2d, 5.2a, 5.2b, 5.2h, 5.2j)
4. Give examples of how organisms are maintaining a state of dynamic equilibrium through feedback mechanisms. (5.3a, 5.3b)

MINI-LESSON:

***MINI-LESSONS: Overview of Cell Functions including:**

50pts each

- Mini-Lesson 1: Body Systems Structure & Function – DATE _____ POINTS _____
- Mini-Lesson 2: Interactions of Body Systems – DATE _____ POINTS _____
- Mini-Lesson 3: Malfunctions – DATE _____ POINTS _____
- Mini-Lesson 4: Feedback Mechanisms – DATE _____ POINTS _____

VOCABULARY ASSIGNMENTS (100 PTS MAX)

Organ	Nephron	Alveoli	Villi	Neuron
Hormone	Enzyme	Small Intestine	Lungs	Receptor
Tissue	Substrates	Digestion	Neurotransmitter	Absorption
Homeostasis	Feedback mechanism	Insulin	Stimulus	Response

1. * ACTIVITY: VOCABULARY (PRODUCT & ORAL DEFENSE QUIZ)

150pts

As a table you will create a matching game using the vocabulary terms above. Divide the terms among the group members. You will need two cards for each vocabulary term. One card will have the term and the other will have the definition. When all the cards are completed, on your table, mix up the cards with the definitions. Each member in your group must match the definition with the term. Everyone in the group should help and practice. You get 100 points for this part. You will take a matching quiz the second day of the layer for 50 points.

OBJECTIVE 1: BODY SYSTEMS STRUCTURE & FUNCTION

2. BODY SYSTEMS DIAGRAMS

100 pts

Create diagrams of at least 5 organs from the Digestive System, Circulatory System, Excretory System, and Respiratory System. You may trace from a textbook or online, but CANNOT simply print out at home. **PRODUCT & ORAL DEFENSE QUIZ**

3. WHO AM I?: BODY SYSTEMS

100 pts

Create a "Who Am I?" children's book of each body system. **PRODUCT & ORAL DEFENSE QUIZ**

4. BRAINPOP: BODY SYSTEMS

50 pts

Go to www.brainpop.com and login (Username: **environhs** Password: **brainpop**). Search "Body System" and click on the video. Take the quiz and e-mail the results (ybell2@schools.nyc.gov or msbellinoyses@gmail.com). **PRODUCT & ORAL DEFENSE QUIZ**

5. CASTLE LEARNING: BODY SYSTEMS REGENTS QUESTIONS

100 pts

Go to www.castlelearning.com and login. Complete the assignment titled "Body Systems". Fill out the Castle Learning Reflection to get credit. **PRODUCT & ORAL DEFENSE QUIZ**

OBJECTIVE 2: INTERACTIONS OF BODY SYSTEMS

6. BODY SYSTEMS LOVE LETTER

100 pts

Create a love letter written from one body system to another about how it cannot function without it. Explain how it assists specifically in homeostasis in the body (give specific organs that help in this interaction) and what would happen if they didn't interact in this way. **PRODUCT & ORAL DEFENSE QUIZ**

7. BODY SYSTEMS ANALOGIES

100 pts

Complete the handouts on body system analogies. **PRODUCT & ORAL DEFENSE QUIZ**

8. BRAINPOP: HOMEOSTASIS

50 pts

Go to www.brainpop.com and login (Username: **environhs** Password: **brainpop**). Search "Body System" and click on the video. Take the quiz and e-mail the results (ybell2@schools.nyc.gov or msbellinoyses@gmail.com). **PRODUCT & ORAL DEFENSE QUIZ**

9. CASTLE LEARNING: BODY SYSTEM CONNECTIONS REGENTS QUESTIONS

100 pts

Go to www.castlelearning.com and login. Complete the assignment titled "Body System Connections". Fill out the Castle Learning Reflection to get credit. **PRODUCT & ORAL DEFENSE QUIZ**

OBJECTIVE 3: MALFUNCTIONS

10. DISEASE BROCHURE

150 pts

Create a brochure that you might find in a doctor's office addressing one major disease, caused by the malfunction of the Circulatory, Respiratory, Digestive, Endocrine, or Excretory System. In this brochure include the name of this disease, which system it affects, a description of the disease, as well as causes, prevention, and treatment methods. **PRODUCT & ORAL DEFENSE QUIZ**

11. DIABETES GRAPHING ACTIVITY

100 pts

Using the handout provided, you will read more about Diabetes and how it affects blood glucose levels. Follow the instructions provided to create a graph of blood glucose levels after an Insulin injection and answer questions. **PRODUCT & ORAL DEFENSE QUIZ**

12. BRAINPOP: DIABETES

50 pts

Go to www.brainpop.com and login (Username: **environhs** Password: **brainpop**). Search "Diabetes" and click on the video. Take the quiz and e-mail the results (ybell2@schools.nyc.gov or msbellinoyses@gmail.com). **PRODUCT & ORAL DEFENSE QUIZ**

13. CREATE A QUIZ

100 pts

Create a 10 question quiz using the textbook and your notes about body system malfunctions. Write regents type questions and provide an answer key. **PRODUCT & ORAL DEFENSE QUIZ**

OBJECTIVE 4: FEEDBACK MECHANISMS (MAX 100 POINTS)

14. FEEDBACK MECHANISM POSTER

100 pts

Create a poster demonstrating diagrams of both a positive and negative feedback loop that occurs in the body. You may find resources for this online, in your text, or from your notes. Must include organs and systems involved, direction of movement, and cause/effect of each step. **PRODUCT & ORAL DEFENSE QUIZ**

15. CASTLE LEARNING: FEEDBACK MECHANISMS REGENTS QUESTIONS

100 pts

Go to www.castlelearning.com and login. Complete the assignment titled "Feedback Mechanisms". Fill out the Castle Learning Reflection to get credit. **PRODUCT & ORAL DEFENSE QUIZ**

Layer B – Analysis & Application (150 points)

16. ACTIVITY: TRANSPIRATION

75 pts

Use the worksheet and website provided to understand how a plant regulates itself through the use of guard cells and stomata.

17. ACTIVITY: BODY CONTROL CENTER

75 pts

Complete the handout provided as you follow the virtual activity online.

18. ACTIVITY: ASTHMA OUTBREAK EXERCISE

150 pts

Use the handout provided to investigate Asthma as an epidemic.

Layer A – Evaluation & Synthesis (200 points)

19. ARGUMENT WRITING: JUNK FOOD

200 pts

Write a two page essay supporting or refuting the following claim based on your opinion and your understanding of its connection to the human body systems. **Public schools should ban junk foods.**

20. ARGUMENT WRITING: SMOKING

200 pts

Write a two page essay supporting or refuting the following claim based on your opinion and your understanding of its connection to the human body systems: **Parents who smoke in front of their children should be punished.**

Day 1 – 12/17	Day 2 – 12/18	Day 3 – 12/19	Day 4 – 12/20	Day 5 – 12/21
Go over unit 4 syllabus Unit 4 Vocabulary	Matching Quiz Mini-Lesson 1: Body Systems Structure and Function Layer C: Objective 1 Activity	LAYER C – Objective 1 Activity	Mini-Lesson 2: Interactions of Body Systems LAYER C – Objective 2 Activity	Layer C – Objective 2 Activity
Day 6 – 1/2 Mini-Lesson 3: Malfunctions LAYER C – Objective 3 Activity	Day 7 – 1/3 Layer C – Objective 3 Activity	Day 8 – 1/4 Mini-Lesson 4: Feedback Mechanisms Layer C – Objective 4 Activity	Day 9 – 1/7 LAYER C – Objective 4 Activity	Day 10 – 1/8 LAYER B Activity
Day 11 – 1/9 LAYER B Activity	Day 12 – 1/10 LAYER B Activity	Day 13 – 1/11 LAYER A Activity	Day 14 – 1/14 LAYER A Activity	Day 15 – 1/15 Unit 4 Exam Review

Day 16 – 1/16	Day 17 – 1/17	Day 18 – 1/18
Unit 4 Exam	Finish ALL LAYERS	Unit 4 Exam Corrections ALL LAYERS DUE**

LAYER A Writing Rubric:

	Highly Effective (4)	Effective (3)	Developing (2)	In Need of Improvement (1)
Grammar	Little (0-2) or no grammar errors, proper punctuation, no spelling errors and appropriate language, words used properly	Grammatical errors and spelling errors exist but do not impact the meaning of the writing	Grammar and spelling errors that somewhat draw away from the meaning of the text	Grammar and spelling errors exist throughout the text and make it difficult to understand
Organization	Clear organization where each paragraph has a purpose. There are clean transitions between paragraphs and main ideas and topics are clearly and well developed.	Clear organization where each paragraph has a purpose. There are clean transitions between paragraphs and main ideas and topics are developed.	Clear organization where each paragraph has a purpose but transitions are weak and main ideas and topics are not well developed	Overall essay is not organized, transitions are weak and main ideas and topics are not well developed
Research	Uses multiple, credible, relevant sources that help create a thorough argument without plagiarism. Sources are cited.	Uses multiple sources that help create a thorough argument without plagiarism. Sources are cited.	Uses one or two sources that help create a thorough argument without plagiarism. Sources are cited.	Uses few sources that don't help create a thorough argument. Sources are not cited.
Argument	Effectively introduces a clearly stated thesis and supports thesis with evidence that demonstrates an understanding of both sides of the issue. Argument is effective.	Effectively introduces a clearly stated thesis and supports that thesis with evidence, however, both sides of the issue are not discussed. Argument is effective.	Effectively introduces a clearly stated thesis but does not support that thesis with evidence.	Thesis is not effectively introduced and is not supported with evidence.