**447 Anatomy and Physiology Level 1**

|  |
| --- |
| **Unit1: Anatomical Orientation**Essential Questions1. What terminology is used to discuss anatomy?2. How is the body organized to function effectively and maintain homeostasis? |
|  |  |  |  |  |  |  |  |
|  | **Framework Standard** | **Content/Skills** |  | **Resources** | **Instructional Strategies** | **Assessments** |  |
|  |  |  |  |  |  |  |  |
|  | Distinguish between | -Define *anatomy* and *physiology*. | -Intro to the Human Body 5th | -Human Body Orientation PPT | -Chapter 1 Reading |  |
|  | anatomy and physiology. |  | Edition (Tortora) Text | and Guided Notes | (Outline/Notes) |  |
|  |  |  | -PPT Presentation- Chapter 1 | -Anatomy Bingo | -Test: Introduction to |  |
|  |  |  | -Copies |  | Anatomy |  |
|  |  |  | - | Chapter Guided Notes |  | -Notebook Check |  |
|  |  |  | - | Outline/Notes rubric |  |  |  |
|  |  |  | - | Bingo Cards |  |  |  |
|  |  |  |  |  |  |  |
|  | Investigate the | - Sequence the levels of structural | -Intro to the Human Body 5th | -Human Body Orientation PPT | -Chapter 1 Reading |  |
|  | interrelationship between | organization from the molecular level | Edition (Tortora) Text | and Guided Notes | (Outline/Notes) |  |
|  | the structures and functions | through the organismic level. | -Anatomy and Physiology | -Quick Activity: Structure vs. | -Test: Introduction to |  |
|  | of the body systems. | - Articulate how function is dependent on | Coloring: A Complete Study | Function | Anatomy |  |
|  |  | structure. | Guide (Marieb) | -Human Body Systems Chart in | -Completion of all hand outs |  |
|  |  | - Identify all of the major systems of the | -The Anatomy Coloring | Pairs | -Informal Observation during |  |
|  |  | body and their organs and briefly describe | Book (Kapit) | -Systems and Regions Coloring | paired work |  |
|  |  | the functions of each. | -PPT Presentation- chapter 1 | Worksheet (pg.1 and 2 in Kapit | -Notebook Check |  |
|  |  |  | -Various Items for Structure | coloring book) |  |  |
|  |  |  | vs. Function Activity (Forks, |  |  |  |
|  |  |  | spoon, glove, cup, etc.) |  |  |  |
|  |  |  | -Copies |  |  |  |
|  |  |  | - | Chapter Guided Notes |  |  |  |
|  |  |  | -Human Body Charts for |  |  |  |
|  |  |  |  | each student |  |  |  |
|  |  |  | - | Outline/Notes rubric |  |  |  |
|  |  |  | - | Bingo Cards |  |  |  |
|  |  |  | - | Coloring Worksheets |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Locate the body cavities |  | -Identify and label the body cavities and |  | -Intro to the Human Body 5th | -Human Body Orientation PPT |  | -Chapter 1 Reading |
| and the major organs in |  | major organs in each. |  | Edition (Tortora) Text | and Guided Notes |  | (Outline/Notes) |
| each. |  | -Honors: Add divisions of the abdomen. |  |  | -Anatomy and Physiology | -Systems and Regions Coloring |  | -Completion of all Hand outs |
|  |  |  |  |  |  |  |  | Coloring: A Complete Study | Worksheet (pg.1 and 2 in Kapit |  | -Test: Introduction to |
|  |  |  |  |  |  |  |  | Guide (Marieb) | coloring book)Coloring |  | Anatomy |
|  |  |  |  |  |  |  |  | -The Anatomy Coloring | Worksheets |  | -Notebook Check |
|  |  |  |  |  |  |  |  | Book (Kapit) |  |  |  |
|  |  |  |  |  |  |  |  | -PPT Presentation- Chapter 1 |  |  |  |
|  |  |  |  |  |  |  |  | -Copies |  |  |  |
|  |  |  |  |  |  |  |  | - | Chapter Guided Notes |  |  |  |
|  |  |  |  |  |  |  |  | -Human Body Charts for |  |  |  |
|  |  |  |  |  |  |  |  |  | each student |  |  |  |
|  |  |  |  |  |  |  |  | - | Outline/Notes rubric |  |  |  |
|  |  |  |  |  |  |  |  |
| Use correct anatomical |  | -Apply correct terminology to reference body |  | -PPT Presentation | -Human Body Orientation PPT |  | -Chapter 1 Reading |
| terminology when |  | regions. |  | -Copies | and Guided Notes |  | (Outline/Notes) |
| discussing body structures, |  | - Apply correct terminology to reference |  | - | Chapter Guided Notes | -Simon Says Body Regions |  | -Test: Introduction to |
| sections, and regions. |  | anatomical orientation and direction. |  | - | Outline/Notes rubric | -Anatomy Bingo |  | Anatomy |
|  |  | - Apply correct terminology to reference |  | - | Bingo Cards | -Practice questions as a class |  | -Dipsticking/Whiteboards |
|  |  | body planes and sections. |  | - | Coloring Worksheets | using white boards or dipsticking |  | -Informal Observation during |
|  |  | -Demonstrate and verbally describe the |  |  |  | (regional and orientation) |  | Simon Says |
|  |  | anatomical position. |  |  |  |  |  | -Notebook Check |
|  |  | -Honors: Must know all regions. |  |  |  |  |  |  |  |
|  |  | -Level 1: Selected regions. |  |  |  |  |  |  |  |  |
|  |  | -Level 2: Skip body regions. |  |  |  |  |  |  |  |
| Reading and Writing Standards for Unit 1 |  |  | Evidence from Unit 1 |  |
| RS.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important | -Chapter 1 Reading (Outline/Notes) |  |
| distinctions the author makes and to any gaps or inconsistences in the account. |  |  | -Human Body Systems Chart |  |
|  |  |  |
| RS.2.Determine the central ideas or conclusions of a text; summarize complex concepts, processes or | -Chapter 1 Reading (Outline/Notes) |  |
| information presented in a text by paraphrasing them in simpler but still accurate terms. | -Human Body Systems Chart |  |
|  |  |  |  |  |  |  |  |  |  | -Chapter 1 Test Open Response and Short Answer Questions |
| RS.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they | -Chapter 1 Reading (Outline/Notes) |  |
| are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. | -Body Systems Chart |  |
|  |  |  |  |  |  |  |  |  |  | -Chapter 1 Test |  |
| RS.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating | -Chapter 1 Reading (Outline/Notes) |  |
| understanding of the information or ideas |  |  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
|  | RS.10. By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text | -Chapter 1 Reading (Outline/Notes) |  |
|  | complexity band independently and proficiently. |  |  |  |  |
|  | WS.2. Write informative/explanatory texts, including the narration of historical events, scientific | -Chapter 1 Test Open Response and Short Answer Questions |
|  | procedures/experiments, or technical processes |  |  |  |  |
|  | WS.4. Produce clear and coherent writing in which the development, organization, and style are appropriate | -Chapter 1 Test Open Response and Short Answer Questions |
|  | to task, purpose, and audience. |  |  |  |  |  |
|  | WS.10. Write routinely over extended time frames and shorter time frames for a range of discipline specific | -Chapter 1 Test Open Response and Short Answer Questions |
|  | tasks, purposes, and audiences. |  |  |  |  |  |
|  |  |

|  |
| --- |
| **Unit 2: Atoms, Molecules, Cells, and Tissues**Essential Questions1. What are the roles of the four major organic macromolecules in the human body?2. How does each organelle contribute to cell functioning?3. What is the primary function of each body tissue? |
|  |  |  |  |  |  |  |  |
|  | **Framework Standard** | **Content/Skills** | **Resources** | **Instructional Strategies** |  | **Assessments** |
|  |  |  |  |  |  |  |  |
|  | 1.2 Describe the basic molecular | -Identify and describe a covalent | -Supplies for investigating | -Macromolecule Chart |  | -Macromolecules Quiz |
|  | structures and primary functions | bond. | macromolecules lab | -Investigating Macromolecules |  | -Completion of |
|  | of the four major categories of | -Be able to identify and describe the | -Copies | Lab Stations |  | Macromolecule Worksheet |
|  | organic molecules (carbohydrates, | function and structure of the four | -Macromolecule Chart | -Practice Macromolecule |  | -Investigating |
|  | lipids, proteins, nucleic acids). | major macromolecules of life. | -Study Guide | Worksheet |  | Macromolecules Lab |
|  | SKIP:HONORS LEVEL |  | -Describe how dehydration | Macromolecules |  |  | -Notebook Check |
|  |  |  | synthesis and hydrolysis are | -Lab packet |  |  |  |
|  |  |  | necessary for constructing and | -Outline/Notes rubric |  |  |  |
|  |  |  | digesting macromolecules. |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2.1 Relate cell parts/organelles to | -Be able to identify and describe the |  | -Poster paper | -Complete Organelle Chart |  | -Cell Analogy Project |
|  | their functions. Explain the role | function of each organelle. |  | -Copies | -Cell Analogy Project |  | -Chapter 3 Reading |
|  | of cell membranes as a highly | -List the major types of cellular |  | -Cell Analogy Rubric and | -Complete Cell Transport |  | (Outline/Notes) |
|  | selective barrier. | transport. |  | Directions | Graphic Organizer |  | -Organelle Quiz |
|  | SKIP:HONORS LEVEL |  | -Define selective permeability. |  | -Organelle Chart |  |  | -Cells and Tissue Test |
|  |  |  |  |  | -Cell Transport Graphic |  |  |  |
|  |  |  |  |  | Organizer |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  | -Be able to identify and describe the |  | -Tissues PPT with coloring | -Notes on Microscope Parts |  | -Chapter 3 Reading |
|  | No Standard | four types of tissues, and their basic |  | book | -Tissues PPT w/guided notes |  | (Outline/Notes) |
|  |  |  | structures and functions. |  | -Colored pencils | -Tissues Coloring Book |  | -Tissues Lab |
|  |  |  |  |  | -Copies |  |  | -Cells and Tissues Test |
|  |  |  |  |  | -Intro to the Microscope |  |  |  |
|  |  |  |  |  | -Tissues Lab |  |  |  |
|  |  |  |  |  | -Tissues Coloring Books |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Reading and Writing Standards for Unit 2 |  | Evidence from Unit 2 |  |
|  | RS.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important | -Chapter 3 & 4 Reading (Outline/Notes) |
|  | distinctions the author makes and to any gaps or inconsistences in the account. |  | -Tissue Lab Report |  |
|  |  |  |
|  | RS.2.Determine the central ideas or conclusions of a text; summarize complex concepts, processes or | -Chapter 3 & 4 Reading (Outline/Notes) |
|  | information presented in a text by paraphrasing them in simpler but still accurate terms. | -Chapter 3&4 Test Open Response and Short Answer Questions |
|  |  |  |  |  |  | -Tissues Lab Report |  |
|  | RS.3. Follow precisely a complex multistep procedure when carrying out experiments, taking | -Investigating Macromolecules Lab |  |
|  | measurements, or performing technical tasks; analyze the specific results based on explanations in the text. | -Tissues Lab |  |
|  | RS.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they | -Chapter 3 & 4 Reading (Outline/Notes) |
|  | are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. | -Chapter 3&4 Test Open Response and Short Answer Questions |
|  | RS.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating | -Chapter 3 & 4 Reading (Outline/Notes) |
|  | understanding of the information or ideas |  |  |  |  |
|  | RS.6. Analyze the author’s purpose in providing explanation, describing a procedure, or discussing an | -Investigating Macromolecules Lab |  |
|  | experiment in a text, identifying important issues that still remain unresolved. |  |  |  |  |
|  | RS.8. Evaluate the hypotheses, data, analysis and conclusions in a science or technical text, verifying the | -Investigating Macromolecules Lab |  |
|  | data when possible and corroboration or challenging conclusions with other sources of data. |  |  |  |
|  | RS.9. Synthesize information from a range of sources into a coherent understanding of a process, | -Investigating Macromolecules Lab |  |
|  | phenomenon or concept, resolving conflicting information when possible. |  | -Tissue Lab Report |  |
|  |  |  |  |  |  | -Chapter 3&4 Test Open Response and Short Answer Questions |
|  |  |  |  |  |  | -Cell Analogy Project |  |
| RS.10. By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text | -Chapter 3 & 4 Reading (Outline/Notes) |
| complexity band independently and proficiently. |  |
| WS.1. Write arguments focused on discipline specific content. | -Investigating Macromolecules Lab |
| WS.2. Write informative/explanatory texts, including the narration of historical events, scientific | -Chapter 3&4 Test Open Response and Short Answer Questions |
| procedures/experiments, or technical processes | -Investigating Macromolecules Lab |
|  | -Tissues Lab Report |
| WS.4. Produce clear and coherent writing in which the development, organization, and style are appropriate | -Chapter 3&4 Test Open Response and Short Answer Questions |
| to task, purpose, and audience. | -Investigating Macromolecules Lab |
|  | -Tissues Lab Report |
| WS.5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying new | -Investigating Macromolecules Lab |
| approach, focusing on addressing what is most significant for a specific purpose and audience. | -Tissues Lab Report |
| WS.7. Conduct short as well as more sustained research projects to answer a question or solve a problem; | -Cell Analogy Project |
| narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating | -Investigating Macromolecules Lab |
| understanding of the subject under investigation. | -Tissues Lab Report |
| WS.9. Draw evidence from informational texts to support analysis, reflection and research. | -Cell Analogy Project |
|  | -Investigating Macromolecules Lab |
|  | -Tissues Lab Report |
| WS.10. Write routinely over extended time frames and shorter time frames for a range of discipline specific | -Chapter 3 & 4 Reading (Outline/Notes) |
| tasks, purposes, and audiences. | -Chapter 3&4 Test Open Response and Short Answer Questions |
|  | -Daily Catalyst Questions |

**Unit 3: Integumentary System**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Essential Questions |  |  |  |  |  |
|  | 1. | What are the functions of the integumentary system? |  |  |  |  |
|  | 2. | What is the anatomy of the integumentary system? |   |  |  |  |
|  | 3. | How are the accessory organs of the skin important in the body’s homeostasis? |  |  |  |
|  |
|  |  | **Framework Standard** | **Content/Skills** | **Resources** | **Instructional Strategies** | **Assessments** |  |
|  |  |  |  |  |  |  |  |
|  | 4.8 Recognize that the body’s | -Describe how the integumentary | -Intro to the Human Body 5th | -Integumentary guided notes | -Integumentary Reading |  |
|  | systems interact to maintain | system helps maintain homeostasis | Edition (Tortora) Text | -Color skin diagram | (Outline/Notes) |  |
|  | homeostasis. Describe the basic | in the human body. | -Integumentary Notes |  | -Integumentary Quiz |  |
|  | function of a physiological feedback | -Identify the functions of the | -Copies |  | -Notebook Check |  |
|  | loop. | integumentary system. | - Integumentary Guided |  |  |  |
|  |  |  | -Recognize the degree of | Notes |  |  |  |
|  | innervation and vascularity of the | - Skin Diagram |  |  |  |
|  | parts of the integumentary system. | -Integumentary Study |  |  |  |
|  |  | Guide |  |  |  |
|  |  |  |  |  |  |
| 2.1 Identify and the structures of the | -Label the epidermis, dermis, and | -Intro to the Human Body | -Integumentary guided notes |  | -Completion of Worksheets |
| skin and explain their role in | hypodermis. | 5th Edition (Tortora) Text | -Color skin diagram |  | -Integumentary Reading |
| protecting the body and maintaining | -Sequence the layers of the | -Integumentary Notes |  |  | (Outline/Notes) |
| homeostasis. | epidermis. | -Copies |  |  | -Integumentary Quiz |
|  | -Describe the role of keratin. | - Integumentary Guided |  |  | -Notebook Check |
|  | -Describe the function of melanin | Notes |  |  |  |
|  | and its effect on vitamin D | - Skin Diagram |  |  |  |
|  | production. | -Integumentary Study |  |  |  |
|  | -Recognize and name the layers and | Guide |  |  |  |
|  | structures found in the dermis. |  |  |  |  |
|  | -Identify the components of the |  |  |  |  |
|  | hypodermis. |  |  |  |  |
| 4.8 Recognize that the body’s | -Describe the distribution and | -Intro to the Human Body 5th | -Integumentary guided notes |  | -Completion of Worksheets |
| systems interact to maintain | function of the sebaceous and sweat | Edition (Tortora) Text | -Color skin diagram |  | -Integumentary Reading |
| homeostasis. Describe the basic | glands. | -Integumentary Notes |  |  | (Outline/Notes) |
| function of a physiological feedback | -Compare and contrast apocrine and | -Copies |  |  | -Integumentary Quiz |
| loop. | eccrine glands. | - Integumentary Guided |  |  | -Notebook Check |
|  | -Describe the structure and function | Notes |  |  |  |
|  | of hair and nails. | - Skin Diagram |  |  |  |
|  |  | -Integumentary Study |  |  |  |
|  |  | Guide |  |  |  |
| No Standard | -Differentiate between first-,second- | -Intro to the Human Body 5th | -Integumentary guided notes |  | -Integumentary Reading |
|  | and third-degree burns. | Edition (Tortora) Text | -Skin Disorder Project (go to |  | (Outline/Notes) |
|  | -Identify when a laceration requires | -Intro to the Human Body 5th | computer lab) |  | -Integumentary Quiz |
|  | stiches. | Edition (Tortora) Text |  |  | -Notebook Check |
|  | -Identify various maladies of the | -Integumentary Notes |  |  | -Skin Disorder Project |
|  | integumentary system including | - Computer access for |  |  |  |
|  | bacterial, fungal and viral infections | research |  |  |  |
|  | and genetic disorders. | -Copies |  |  |  |
|  |  | -Skin disorder presentation |  |  |  |
|  |  | rubric |  |  |  |
| Reading and Writing Standards for Unit 3 |  | Evidence from Unit 3 |  |
| RS.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important | -Chapter 5 Reading (Outline/Notes) |  |
| distinctions the author makes and to any gaps or inconsistences in the account. | -Skin Disorder Project |
|  |  |
| RS.2.Determine the central ideas or conclusions of a text; summarize complex concepts, processes or | -Chapter 5 Reading (Outline/Notes) |
| information presented in a text by paraphrasing them in simpler but still accurate terms. | -Chapter 5 Test Open Response and Short Answer Questions |
|  | -Skin Disorder Project |
| RS.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they | -Chapter 5 Reading (Outline/Notes) |
| are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. | -Chapter 5 Test Open Response and Short Answer Questions |
| RS.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating | -Chapter 5 Reading (Outline/Notes) |
| understanding of the information or ideas |  |
| RS.7. Integrate and evaluate multiple sources of information presented in diverse formats and media in | -Skin Disorder Project |
| order to address a question or solve a problem. |  |
| RS.8. Evaluate the hypotheses, data, analysis and conclusions in a science or technical text, verifying the | -Skin Disorder Project |
| data when possible and corroboration or challenging conclusions with other sources of data. |  |
| RS.9. Synthesize information from a range of sources into a coherent understanding of a process, | -Skin Disorder Project |
| phenomenon or concept, resolving conflicting information when possible. | -Chapter 5 Test Open Response and Short Answer Questions |
| RS.10. By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text | -Chapter 5 Reading (Outline/Notes) |
| complexity band independently and proficiently. |  |
| WS.2. Write informative/explanatory texts, including the narration of historical events, scientific | -Chapter 5Test Open Response and Short Answer Questions |
| procedures/experiments, or technical processes | -Skin Disorder Project |
| WS.4. Produce clear and coherent writing in which the development, organization, and style are appropriate | -Chapter 5 Test Open Response and Short Answer Questions |
| to task, purpose, and audience. | -Skin Disorder Project |
| WS.5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying new | -Skin Disorder Project |
| approach, focusing on addressing what is most significant for a specific purpose and audience. |  |
| WS.6. Use technology, including the internet, to produce, publish, and update individual or shared writing | -Skin Disorder Project |
| products in response to ongoing feedback, including new arguments and information. |  |
| WS.7. Conduct short as well as more sustained research projects to answer a question or solve a problem; | -Skin Disorder Project |
| narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating |  |
| understanding of the subject under investigation. |  |
| WS.8. Gather information from multiple authoritative print and digital resources, using advanced searches | -Skin Disorder Project |
| effectively; assess the strengths and weaknesses of each sources in a specific task, purpose and audience; |  |
| integrate information into the test selectively to maintain the flow of ideas, avoiding plagiarism and |  |
| overreliance on any one source and following a standard format for citation. |  |
| WS.9. Draw evidence from informational texts to support analysis, reflection and research. | -Skin Disorder Project |
| WS.10. Write routinely over extended time frames and shorter time frames for a range of discipline specific | -Chapter 5 Reading (Outline/Notes) |
| tasks, purposes, and audiences. | -Chapter 5 Test Open Response and Short Answer Questions |
|  | -Daily Catalyst Questions |

|  |
| --- |
| **Unit 4: Skeletal System**Essential Questions1. How does the skeletal system achieve its five major functions? 2. What is the internal anatomy of a bone?3. What are the bones that make up the axial and appendicular skeleton? |
|  |  |  |  |  |  |  |
|  |  | **Framework Standard** | **Content/Skills** | **Resources** | **Instructional Strategies** | **Assessments** |
|  |  |  |  |  |  |  |  |  |  |
| 4.8 Recognize that the body’s | -Describe how the skeletal system | -Intro to the Human Body 5th | - Introduction to the Skeletal | -Introduction to the Skeletal |
| systems interact to maintain | helps maintain homeostasis in the | Edition (Tortora) Text | System Notes | System Quiz |
| homeostasis. Describe the basic | human body. | -The Anatomy Coloring | -Anatomy of a Long Bone | -Skeletal System Test |
| function of a physiological feedback | -Identify the functions of the | Book (Kapit) | Diagram (Kapit p.17) | -Notebook Check |
| loop. | skeletal system. | -Skeletal System Notes | -Bone Matrix Coloring | -Skeletal Reading |
|  |  |  |  |  |  | -Recognize the degree of | -Anatomy of a Lone Bone |  | (Outline/Notes) |
|  |  |  |  |  |  | innervation and vascularity of the | Diagram (Kapit p. 17) |  |  |
|  |  |  |  |  |  | parts of the skeletal system. | -Copies |  |  |
|  |  |  |  |  |  |  | -Anatomy of a Long Bone |  |  |
|  | Introduction to Skeletal System | -Name the four main classifications | -Intro to the Human Body 5th | -Chicken Bone Lab | -Introduction to the Skeletal |
|  | See Appendix for bones and |  | of bones. | Edition (Tortora) Text | -Anatomy of a Long Bone | System Quiz |
|  |  | structures each level is |  | -Compare and contrast compact and | -Anatomy and Physiology | Diagram (Kapit p.17) | -Skeletal System Test |
|  |  | responsible for. |  | spongy bone. | Coloring: A Complete Study | -Bone and Tooth Minerals | -Notebook Check |
|  |  |  |  |  |  | -Describe the gross anatomy of a | Guide (Marieb) | Article and discussion | -Skeletal Reading |
|  |  |  |  |  |  | long bone. | -The Anatomy Coloring | -Bone Matrix Coloring | (Outline/Notes) |
|  |  |  |  |  |  | -Describe microscopic anatomy of | Book (Kapit) | -Bone Fractures and Remodeling | -Chicken Bone Lab Report |
|  |  |  |  |  |  | bone tissue. | -Supplies for Chicken Bone | Notes | -Completion of worksheets |
|  |  |  |  |  |  | -Describe how osteoclasts and | Lab | -Marieb Coloring pp82&83 |  |
|  |  |  |  |  |  | osteoblasts work together to | -Youtube access | -Bone Fracture & Healing |  |
|  |  |  |  |  |  | maintain bone homeostasis. | -Colored pencils | Videos |  |
|  |  |  |  |  |  | - Describe the process of bone | -Copies |  |  |
|  |  |  |  |  |  | growth and formation. | -Chicken Bone Lab |  |  |
|  |  |  |  |  |  | - Compare and contrast the various | -Bone Matrix Coloring |  |  |
|  |  |  |  |  |  | types of fractures. | -Anatomy of a Long Bone |  |  |
|  |  |  |  |  |  |  | Diagram (Kapit p.17) |  |  |
|  |  |  |  |  |  |  | -Bone and Tooth Minerals |  |  |
|  |  |  |  |  |  |  | Article |  |  |
|  |  |  |  |  |  |  | -Bone Fracture and |  |  |

Remodeling Notes -Marieb coloring pp. 82&83

|  |  |  |
| --- | --- | --- |
| Reading and Writing Standards for Unit 4 | Evidence from Unit 4 |  |
| RS.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important | -Chapter 6&7 Reading (Outline/Notes) |  |
| distinctions the author makes and to any gaps or inconsistences in the account. | -Bone and Tooth Minerals Article Questions |  |
|  |  |  |
| RS.2.Determine the central ideas or conclusions of a text; summarize complex concepts, processes or | -Chapter 6&7 Reading (Outline/Notes) |  |
| information presented in a text by paraphrasing them in simpler but still accurate terms. | -Chapter 6&7 Test Open Response and Short Answer Questions |  |
|  | -Bone and Tooth Minerals Article Questions |  |
| RS.3. Follow precisely a complex multistep procedure when carrying out experiments, taking | -Chicken Bone Lab |  |
| measurements, or performing technical tasks; analyze the specific results based on explanations in the text. |  |  |
| RS.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they | -Chapter 6&7 Reading (Outline/Notes) |  |
| are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. | - Chapter 6&7 Test Open Response and Short Answer Questions |  |
|  | -Bone and Tooth Minerals Article Questions |  |
| RS.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating | - Chapter 6&7 Reading (Outline/Notes) |  |
| understanding of the information or ideas |  |  |
| RS.8. Evaluate the hypotheses, data, analysis and conclusions in a science or technical text, verifying the | -Chicken Bone Lab |  |
| data when possible and corroboration or challenging conclusions with other sources of data. |  |  |
| RS.9. Synthesize information from a range of sources into a coherent understanding of a process, | -Chicken Bone Lab |  |
| phenomenon or concept, resolving conflicting information when possible. | -Bone and Tooth Minerals Article Questions |  |
|  | - Chapter 6&7 Test Open Response and Short Answer Questions |  |
| RS.10. By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text | - Chapter 6&7 Reading (Outline/Notes) |  |
| complexity band independently and proficiently. |  |  |
| WS.2. Write informative/explanatory texts, including the narration of historical events, scientific | - Chapter 6&7 Test Open Response and Short Answer Questions |  |
| procedures/experiments, or technical processes | -Chicken Bone Lab |  |
| WS.4. Produce clear and coherent writing in which the development, organization, and style are appropriate | - Chapter 6&7 Test Open Response and Short Answer Questions |  |
| to task, purpose, and audience. |  |  |
| WS.7. Conduct short as well as more sustained research projects to answer a question or solve a problem; | -Chicken Bone Lab |  |
| narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating |  |  |
| understanding of the subject under investigation. |  |  |
| WS.9. Draw evidence from informational texts to support analysis, reflection and research. | -Chicken Bone Lab |  |
|  | -Bone and Tooth Minerals Article Questions |  |
| WS.10. Write routinely over extended time frames and shorter time frames for a range of discipline specific | -Chapter 6&7 Reading (Outline/Notes) |  |
| tasks, purposes, and audiences. | -Chapter 6&7 Test Open Response and Short Answer Questions |  |
|  | -Daily Catalyst Questions |  |

|  |
| --- |
| **Unit 5: Muscular System**Essential Questions1. What are the roles of the three types of muscle tissue in the human body? 2. What are the functions of Muscle?3. What are the major events of muscle contraction and relaxation?4. How are muscles affect by exercise?5. What are the major muscles of the human anatomy of the Muscular system? |
|  |  |  |  |  |
| **Framework Standard** | **Content/Skills** | **Resources** | **Instructional Strategies** | **Assessments** |
|  |  |  |  |  |
| 4.8 Recognize that the body’s systems | -Describe how the muscular | -Intro to the Human Body 5th | -Introduction to the Muscular | -Introduction to the Muscular |
| interact to maintain homeostasis. | system helps maintain | Edition (Tortora) Text | System Notes | System Quiz |
| Describe the basic function of a | homeostasis in the human |  |  | -Muscular System Test |
| physiological feedback loop. | body. |  |  | -Notebook Check |
|  | -Identify the functions of the |  |  | -Muscular Reading |
|  | muscular system. |  |  | (Outline/Notes) |
|  | -Recognize the degree of |  |  |  |
|  | innervation and vascularity of |  |  |  |
|  | the parts of the muscular |  |  |  |
|  | system. |  |  |  |
| Introduction to Muscular Tissue | -Compare and contrast the | -Intro to the Human Body 5th | -Muscle Tissue Graphic | -Introduction to the Muscular |
|  | three types of muscle tissue. | Edition (Tortora) Text | Organizer | System Quiz |
|  | -Explain the gross anatomy of | -Anatomy and Physiology | -Muscle Contraction and | -Muscular System Test |
|  | a skeletal muscle. | Coloring: A Complete Study | Neuromuscular Junction Notes | -Notebook Check |
|  | -Describe the anatomy of | Guide (Marieb) | -Acting out the Sarcomere | -Completed Worksheets |
|  | sarcomere. | -The Anatomy Coloring Book | Activity | -Muscular Reading |
|  | -Sequence the events of | (Kapit) | -Coloring and Labeling | (Outline/Notes) |
|  | muscle contraction starting at | -Copies | Worksheets |  |
|  | the neuromuscular junction. | - Muscle Contraction |  |  |
|  |  | Guided Notes |  |  |
|  |  | -Neuromuscular Junction |  |  |
|  |  | Guided Notes |  |  |
|  |  | -Coloring Worksheets |  |  |
|  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2.4 Identify the reactants, products, |  | -Identify and explain the | -Intro to the Human Body 5th | -Energy Sources Graphic |  | -Introduction to the Muscular |
|  | and basic purposes of cellular |  | energy sources for the | Edition (Tortora) Text | Organizer |  | System Quiz |
|  | respiration. |  | muscles. |  | -Bigger, Faster, Stronger Video |  | -Muscular System Test |
|  |  |  |  |  | -Explain the effects of exercise |  | -Real Sports Olympic Drug |  | -Notebook Check |
|  |  |  |  |  | on the muscles and energy |  | Testing Video |  | -Muscular Reading |
|  |  |  |  |  | systems. |  |  |  | (Outline/Notes) |
|  |  |  |  |  | -Explain the processes of post |  |  |  |  |
|  |  |  |  |  | exercise recovery including |  |  |  |  |
|  |  |  |  |  | repaying oxygen debt and |  |  |  |  |
|  |  |  |  |  | repairing muscles. |  |  |  |  |
|  | Human Muscles |  | -Demonstrate the different | -Intro to the Human Body 5th | -Coloring Worksheets |  | -Introduction to the Muscular |
|  | See Appendix for muscles each level |  |  | types of body movements. | Edition (Tortora) Text | -Muscle Tracing Activity |  | System Quiz |
|  | is responsible for. |  |  | -Explain the interactions of | -Anatomy and Physiology | -Mammal Dissection |  | -Muscular System Test |
|  |  |  |  |  | different muscle during a | Coloring: A Complete Study | -Muscle Chart |  | -Notebook Check |
|  |  |  |  |  | movement. | Guide (Marieb) |  |  | -Muscular Reading |
|  |  |  |  |  | -Identify pertinent muscles and | -The Anatomy Coloring Book |  |  | (Outline/Notes) |
|  |  |  |  |  | their attachments. \*See | (Kapit) |  |  | -Muscle Tracing Activity |
|  |  |  |  |  | appendix for complete list | -Copies |  |  | -Dissection Notes |
|  |  |  |  |  |  | -Muscle Tracing Activity |  |  |  |
|  |  |  |  |  |  | Rubric |  |  |  |
|  |  |  |  |  |  | -Coloring Worksheets |  |  |  |
|  |  |  |  |  |  | -Muscle Chart |  |  |  |
|  |  |  |  |  |  |  |
|  | Reading and Writing Standards for Unit 5 |  | Evidence from Unit 5 |  |
|  | RS.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important | -Chapter 8 Reading (Outline/Notes) |  |
|  | distinctions the author makes and to any gaps or inconsistences in the account. |  |  |  |
|  | RS.2.Determine the central ideas or conclusions of a text; summarize complex concepts, processes or | -Chapter 8Reading (Outline/Notes) |  |
|  | information presented in a text by paraphrasing them in simpler but still accurate terms. | -Chapter 8 Test Open Response and Short Answer Questions |
|  | RS.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they | -Chapter 8 Reading (Outline/Notes) |  |
|  | are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. | -Chapter 8 Test Open Response and Short Answer Questions |
|  | RS.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating | - Chapter 8 Reading (Outline/Notes) |  |
|  | understanding of the information or ideas |  |  |  |  |  |
|  | RS.9. Synthesize information from a range of sources into a coherent understanding of a process, | -Bigger,Faster,Stronger Movie Write-up |
|  | phenomenon or concept, resolving conflicting information when possible. |  |  |  |  |
|  | RS.10. By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text | - Chapter 8 Reading (Outline/Notes) |  |
|  | complexity band independently and proficiently. |  |  |  |  |
|  | WS.1. Write arguments focused on discipline specific content. |  | -Bigger,Faster,Stronger Movie Write-up |

|  |  |
| --- | --- |
| WS.2. Write informative/explanatory texts, including the narration of historical events, scientific | - Chapter 8 Test Open Response and Short Answer Questions |
| procedures/experiments, or technical processes | -Bigger,Faster,Stronger Movie Write-up |
| WS.4. Produce clear and coherent writing in which the development, organization, and style are appropriate | - Chapter 6&7 Test Open Response and Short Answer Questions |
| to task, purpose, and audience. | -Bigger,Faster,Stronger Movie Write-up |
| WS.9. Draw evidence from informational texts to support analysis, reflection and research. | -Bigger,Faster,Stronger Movie Write-up |

**Unit 6: Nervous System**

|  |
| --- |
| Essential Questions:1. What are the roles of the two types of nervous cells in the human body?2. How do the two branches of the nervous system contribute body function?3. What are the major events of nerve impulse and how is it conducted from one neuron to another?4. How do afferent and efferent neurons work together to achieve an appropriate response to environmental stimuli?5. What are protective of the nervous system and how do they function?6.What are the major functional regions of the brain? |
|  |  |  |  |  |  |  |  |
|  |  | **Framework Standard** | **Content/Skills** | **Resources** | **Instructional Strategies** | **Assessments** |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | Function of the Nervous System | -Describe how the nervous system | -Intro to the Human Body | -Nervous PPT w/guided notes | -Introduction to the Nervous |  |
|  |  |  | helps maintain homeostasis in the | 5th Edition (Tortora) Text |  | System Quiz |  |
|  |  |  | human body. | -Nervous PPT |  | -Nervous System Test |  |
|  |  |  | -Identify the functions of the | -Copies |  | -Notebook Check |  |
|  |  |  | nervous system. | -Guided Notes |  | -Nervous System Reading |  |
|  |  |  |  |  |  | (Outline/Notes) |  |
|  |  |  |  |  |  | -Nervous System Disorder |  |
|  |  |  |  |  |  | Project |  |
|  | Organization of the Nervous System | -Define central nervous system and | -Intro to the Human Body | -Nervous PPT w/guided notes | -Introduction to the Nervous |  |
|  |  |  | peripheral nervous system and list | 5th Edition (Tortora) Text |  | System Quiz |  |
|  |  |  | the major parts of each. | -Nervous PPT |  | -Nervous System Test |  |
|  |  |  | -Compare and contrast afferent and | -Copies |  | -Notebook Check |  |
|  |  |  | efferent neurons. | -Guided Notes |  | -Nervous System Reading |  |
|  |  |  | -Compare and contrast white and |  |  | (Outline/Notes) |  |
|  |  |  | gray matter. |  |  | -Nervous System Disorder |  |
|  |  |  |  |  |  | Project |  |
|  | Nervous Tissue | -Describe the structure of a neuron. | -Intro to the Human Body | -Nervous PPT w/guided notes | -Introduction to the Nervous |  |
|  |  |  | -Describe the roles of the major | 5th Edition (Tortora) Text | -Neuron Coloring | System Quiz |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | types of neuroglia. |  | -Anatomy and Physiology | -Video Clips of |  | -Nervous System Test |
|  | -Describe the events of an action |  | Coloring: A Complete Study | neurotransmission |  | -Notebook Check |
|  | potential. |  | Guide (Marieb) |  |  | -Nervous System Reading |
|  | -Describe how a nerve impulse is |  | -The Anatomy Coloring |  |  | (Outline/Notes) |
|  | communicated from one neuron to |  | Book (Kapit) |  |  | -Nervous System Disorder |
|  | the next neuron or effector organ. |  | -Copies |  |  | Project |
|  | -Identify the roles of dopamine, |  | - Neuron Coloring |  |  |  |
|  | serotonin and acetylcholine. |  | - Guided Notes |  |  |  |
| The Brain | -Identify the four main regions of |  | -Intro to the Human Body | -Nervous PPT w/guided notes |  | -Nervous System Test |
|  | the brain as the diencephalon, brain |  | 5th Edition (Tortora) Text | -Brain Regions Coloring |  | -Notebook Check |
|  | stem, cerebellum and cerebrum and |  | -Anatomy and Physiology | - Type II: Brain Imaging |  | -Nervous System Reading |
|  | describe their general functions. |  | Coloring: A Complete Study | Summary |  | (Outline/Notes) |
|  | -Identify the four lobes of the |  | Guide (Marieb) | - Neurobiology Videos: |  | - Dissection Quiz |
|  | cerebrum and their general |  | -The Anatomy Coloring | -Make me a Genius |  | -Nervous System Disorder |
|  | functions. |  | Book (Kapit) | -Inside the Brain |  | Project |
|  |  |  | -Copies | -NOVA: How the Brain Works - |  |  |
|  |  |  | - Guided Notes | -The Secret Life of the Brain |  |  |
|  |  |  | - Brain Coloring | -Sheep Brain Dissection |  |  |
|  |  |  | - Dissection Guide | -Nervous System Disorder |  |  |
|  |  |  | - Brain Imaging | Project |  |  |
|  |  |  |  |  |  |  |
| Reading and Writing Standards for Unit 6 |  | Evidence from Unit 6 |  |
| RS.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important | -Chapter 9 Reading (Outline/Notes) |  |
| distinctions the author makes and to any gaps or inconsistences in the account. |  | -Nervous System Disorder Project |  |
| RS.2.Determine the central ideas or conclusions of a text; summarize complex concepts, processes or | -Chapter 9 Reading (Outline/Notes) |  |
| information presented in a text by paraphrasing them in simpler but still accurate terms. | -Chapter 9 Test Open Response and Short Answer Questions |
|  |  |  |  | -Nervous System Disorder Project |  |
| RS.3. Follow precisely a complex multistep procedure when carrying out experiments, taking | -Sheep Brain Dissection |  |
| measurements, or performing technical tasks; analyze the specific results based on explanations in the text. |  |  |  |
| RS.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they | -Chapter 9 Reading (Outline/Notes) |  |
| are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. | -Chapter 9 Test Open Response and Short Answer Questions |
|  |  |  |  | -Nervous System Disorder Project |  |
| RS.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating | - Chapter 9 Reading (Outline/Notes) |  |
| understanding of the information or ideas |  |  |  |  |
| RS.6. Analyze the author’s purpose in providing explanation, describing a procedure, or discussing an | -Nervous System Disorder Project |  |
| experiment in a text, identifying important issues that still remain unresolved. |  | -Sheep Brain Dissection |  |
| RS.7. Integrate and evaluate multiple sources of information presented in diverse formats and media inorder to address a question or solve a problem | -Nervous System Disorder Project |  |
|  |
| RS.8. Evaluate the hypotheses, data, analysis and conclusions in a science or technical text, verifying the | -Nervous System Disorder Project |
| data when possible and corroboration or challenging conclusions with other sources of data. |  |
| RS.9. Synthesize information from a range of sources into a coherent understanding of a process, | -Nervous System Disorder Project |
| phenomenon or concept, resolving conflicting information when possible. | -Chapter 9 Test Open Response and Short Answer Questions |
|  | -Sheep Brain Dissection |
| RS.10. By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text | - Chapter 9 Reading (Outline/Notes) |
| complexity band independently and proficiently. |  |
| WS.1. Write arguments focused on discipline specific content. | -Nervous System Disorder Project |
| WS.2. Write informative/explanatory texts, including the narration of historical events, scientific | - Chapter 9 Test Open Response and Short Answer Questions |
| procedures/experiments, or technical processes | -Nervous System Disorder Project |
| WS.4. Produce clear and coherent writing in which the development, organization, and style are appropriate | - Chapter 9 Test Open Response and Short Answer Questions |
| to task, purpose, and audience. | -Nervous System Disorder Project |
| WS.5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying new | -Investigating Macromolecules Lab |
| approach, focusing on addressing what is most significant for a specific purpose and audience. | -Nervous System Disorder Project |
| WS.6. Use technology, including the internet, to produce, publish, and update individual or shared writing | -Nervous System Disorder Project |
| products in response to ongoing feedback, including new arguments and information. |  |
| WS.7. Conduct short as well as more sustained research projects to answer a question or solve a problem; | -Nervous System Disorder Project |
| narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating |  |
| understanding of the subject under investigation. |  |
| WS.8. Gather information from multiple authoritative print and digital resources, using advanced searches | -Nervous System Disorder Project |
| effectively; assess the strengths and weaknesses of each sources in a specific task, purpose and audience; |  |
| integrate information into the test selectively to maintain the flow of ideas, avoiding plagiarism and |  |
| overreliance on any one source and following a standard format for citation. |  |
| WS.9. Draw evidence from informational texts to support analysis, reflection and research. | -Nervous System Disorder Project |
|  |  |
| WS.10. Write routinely over extended time frames and shorter time frames for a range of discipline specific | -Chapter 9 Reading (Outline/Notes) |
| tasks, purposes, and audiences. | -Chapter 9 Test Open Response and Short Answer Questions |
|  | -Daily Catalyst Questions |

Unit 7: Honors and Level 1 only

|  |
| --- |
| **Unit 7: The Cardiovascular System**Essential Questions:1. What is the function of the cardiovascular system?2. What are the components of blood and their functions?3. What are the characteristics of the three types of blood vessels? Where are they found?4. What are the major blood vessels of the body and where are they located?5. What is the pathway of the blood through the heart and systemic circulation?6. How does the body maintain cardiovascular homeostasis? |
|  |  |  |  |  |
| **Framework Standard** | **Content/Skills** | **Resources** | **Instructional Strategies** | **Assessments** |
|  |  |  |  |  |
| Introduction to the Cardiovascular | -Describe how the cardiovascular | -Intro to the Human Body 5th | -Cardiovascular PPT w/guided | -Introduction to the |
| System | system helps maintain homeostasis | Edition (Tortora) Text | notes | Cardiovascular System Quiz |
|  | in the human body. | -Cardiovascular PPT |  | -Cardiovascular System Test |
|  | -Identify the six functions of the | -Copies |  | -Notebook Check |
|  | cardiovascular system. | -Guided Notes |  | -Cardiovascular System |
|  |  |  |  | Reading (Outline/Notes) |
|  |  |  |  |  |
| Components of the Blood | -Describe the principle functions of | Intro to the Human Body 5th | -Cardiovascular PPT w/guided | -Introduction to the |
|  | each of the four blood components | Edition (Tortora) Text | notes | Cardiovascular System Quiz |
|  | including red blood cells, white | -Cardiovascular PPT | -Blood Clotting Video | -Cardiovascular System Test |
|  | blood cells, platelets and plasma. | -Copies |  | -Notebook Check |
|  | -Describe mechanism of blood | -Guided Notes |  | -Cardiovascular System |
|  | clotting. |  |  | Reading (Outline/Notes) |
|  | -Define anemia and list possible |  |  |  |
|  | causes. |  |  |  |
|  | -Describe the ABO and Rh blood |  |  |  |
|  | groups. |  |  |  |
| Blood Vessels | -Compare and contrast the three | Intro to the Human Body 5th | -Cardiovascular PPT w/guided | -Cardiovascular System Test |
|  | types of blood vessels in terms of | Edition (Tortora) Text | notes | -Notebook Check |
|  | structure and function. | -Cardiovascular PPT | - You Tube Clips | -Cardiovascular System |
|  | -Identify the major veins and | -Copies |  | Reading (Outline/Notes) |
|  | arteries of the human body. | -Guided Notes |  |  |
|  | -Define aneurism and explain |  |  |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | possible causes and effects. |  |  |  |  |
|  | -Define aneurism and explain |  |  |  |  |
|  | possible causes and effects. |  |  |  |  |
|  | -Define atherosclerosis, throbus and |  |  |  |  |
|  | embolus and explain possible causes |  |  |  |  |
|  | and effects. |  |  |  |  |
|  | -Describe the role of skeletal muscle |  |  |  |  |
|  | in maintaining proper circulation. |  |  |  |  |
| The Heart | -Trace the pathway of blood |  | Intro to the Human Body 5th | -Cardiovascular PPT w/guided | -Cardiovascular System Test |
|  | through the heart. |  | Edition (Tortora) Text | notes | -Notebook Check |
|  | -Identify and label the chambers and |  | -Cardiovascular PPT | -Video | -Cardiovascular System |
|  | valves of the heart. |  | -Copies | -Heart Diagram | Reading (Outline/Notes) |
|  | -Explain the role of the sinoatrial |  | -Guided Notes | -Mammal heart Dissection | -Dissection Quiz |
|  | node, atrial ventricle node and |  | - Dissection Guide | - Blood Pressure and Heart Rate | -Blood Pressure and Heart |
|  | purking fiber in coordinating |  | - Blood Pressure and Heart | Lab | Rate Lab |
|  | cardiac contraction. |  | Rate Activity |  |  |
|  | -Describe the origin of the heart |  | - Heart Diagram |  |  |
|  | sounds and causes of a heart |  |  |  |  |
|  | murmur. |  |  |  |  |
|  | -Define systole and diastole and |  |  |  |  |
|  | their role in cardiovascular fitness. |  |  |  |  |
|  | -Define clinical terms related to |  |  |  |  |
|  | heart rate including bradycardia, |  |  |  |  |
|  | tachiicardia and hypertension. |  |  |  |  |
|  | -Define and measure heart rate. |  |  |  |  |
|  | -Identify the effect of cardiovascular |  |  |  |  |
|  | fitness on heart rate. |  |  |  |  |
|  | -Describe and electrocardiogram |  |  |  |  |
|  | and identify the features of a normal |  |  |  |  |
|  | rhythm. |  |  |  |  |
|  | -Describe the causes of a heart |  |  |  |  |
|  | attack and the effects of |  |  |  |  |
|  | defibrillation. |  |  |  |  |
|  |  |  |  |  |  |
| Reading and Writing Standards for Unit 6 |  | Evidence from Unit 6 |  |
| RS.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important | -Chapter Reading (Outline/Notes) |  |
| distinctions the author makes and to any gaps or inconsistences in the account. |  |  |  |
| RS.2.Determine the central ideas or conclusions of a text; summarize complex concepts, processes or | -Chapter Reading (Outline/Notes) |
| information presented in a text by paraphrasing them in simpler but still accurate terms. | -Chapter Test Open Response and Short Answer Questions |
| RS.3. Follow precisely a complex multistep procedure when carrying out experiments, taking | -Mammal Heart Dissection |
| measurements, or performing technical tasks; analyze the specific results based on explanations in the text. | -Blood Pressure and Heart Rate Lab |
| RS.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they | -Chapter Reading (Outline/Notes) |
| are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. | -Chapter Test Open Response and Short Answer Questions |
|  |  |
| RS.5 Analyze how the text structures information or ideas into categories or hierarchies, demonstrating | - Chapter Reading (Outline/Notes) |
| understanding of the information or ideas |  |
| RS.6. Analyze the author’s purpose in providing explanation, describing a procedure, or discussing an | -Mammal Heart Dissection |
| experiment in a text, identifying important issues that still remain unresolved. | -Blood Pressure and Heart Rate Lab |
| RS.9. Synthesize information from a range of sources into a coherent understanding of a process, | -Chapter Test Open Response and Short Answer Questions |
| phenomenon or concept, resolving conflicting information when possible. | -Mammal Heart Dissection |
|  | -Blood Pressure and Heart Rate Lab |
| RS.10. By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text | -Chapter Reading (Outline/Notes) |
| complexity band independently and proficiently. |  |
| WS.2. Write informative/explanatory texts, including the narration of historical events, scientific | -Chapter Test Open Response and Short Answer Questions |
| procedures/experiments, or technical processes | -Blood Pressure and Heart Rate Lab |
| WS.4. Produce clear and coherent writing in which the development, organization, and style are appropriate | - Chapter Test Open Response and Short Answer Questions |
| to task, purpose, and audience. | -Blood Pressure and Heart Rate Lab |
| WS.5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying new | -Blood Pressure and Heart Rate Lab |
| approach, focusing on addressing what is most significant for a specific purpose and audience. |  |
| WS.6. Use technology, including the internet, to produce, publish, and update individual or shared writing | -Blood Pressure and Heart Rate Lab |
| products in response to ongoing feedback, including new arguments and information. |  |
| WS.7. Conduct short as well as more sustained research projects to answer a question or solve a problem; | -Mammal Heart Dissection |
| narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating | -Blood Pressure and Heart Rate Lab |
| understanding of the subject under investigation. |  |
| WS.9. Draw evidence from informational texts to support analysis, reflection and research. | -Mammal Heart Dissection |
|  | -Blood Pressure and Heart Rate Lab |
|  |  |
| WS.10. Write routinely over extended time frames and shorter time frames for a range of discipline specific | -Chapter Reading (Outline/Notes) |
| tasks, purposes, and audiences. | -Chapter Test Open Response and Short Answer Questions |
|  | -Daily Catalyst Questions |