



2. A. The content is written to the correct skill level of the standards and benchmarks in the course.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

Material is written towards high school level

3. A. The materials are adaptable and useful for classroom instruction.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

Online tools include videos, visuals, student workbook, and laboratory activities

**B. Level of Treatment** 4. B. The materials provide sufficient details for students to understand the significance of topics and events.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

details are explained thoroughly and diagrams

5. B. The level (complexity or difficulty) of the treatment of content matches the standards.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

standards are represented with rigor for a high school student

6. B. The level (complexity or difficulty) of the treatment of content matches the student abilities and grade level.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

content is presented with many opportunities for practice and extensions for learning focused towards high school

7. B. The level (complexity or difficulty) of the treatment of content matches the time period allowed for teaching.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

each chapter represents a body system with proper flow and content appropriate for time period

**C. Expertise for Content Development** 8. C. The primary and secondary sources cited in the materials reflect expert information for the subject.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

each chapter starts with a theme to engage students, these include information from reputable primary and secondary sources.

9. C. The primary and secondary sources contribute to the quality of the content in the materials.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

these allow for extension of the material being presented in the chapter

**D. Accuracy of Content** 10. D. The content is presented accurately. (Material should be devoid of typographical or visual errors).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

no noticeable errors

11. D. The content of the material is presented objectively. (Material should be free of bias and contradictions and is noninflammatory in nature).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

no noticeable bias or contraindications

12. D. The content of the material is representative of the discipline? (Material should include prevailing theories, concepts, standards, and models used with the subject area).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

representative of Anatomy and Physiology for High school level

13. D. The content of the material is factual accurate. (Materials should be free of mistakes and inconsistencies).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

No noticeable mistakes or inconsistencies

**E. Currency of Content** 14. E. The content is up-to-date according to current research and standards of practice.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
up to date Medical research and extensions

15. E. The content is presented to the curriculum, standards, and benchmarks in an appropriate and relevant context.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
content is related to the standards and curriculum for Anatomy and Physiology

16. E. The content is presented in an appropriate and relevant context for the intended learners.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
High school students

**F. Authenticity of Content** 17. F. The content includes connections to life in a context that is meaningful to students.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
The theme at the beginning of each chapter connects the content to real life. There are also sections in each chapter for diseases, and use the practices that connect material to real life.

18. F. The material includes interdisciplinary connections which are intended to make the content meaningful to students.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
There are sections that explain the different health professions and their application of the material

**G. Multicultural Representation** 19. G. The portrayal of gender, ethnicity, age, work situations, cultural, religious, physical, and various social groups are fair and unbiased. (Please explain any unfair or biased portrayals in the comments section).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
no noticeable bias

**H. Humanity and Compassion** 20. H. The materials portray people and animals with compassion, sympathy, and consideration of their needs and values and exclude hard-core pornography and inhumane treatment. (An exception may be necessary for units covering animal welfare).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

21. In general, is the content of the benchmarks and standards for this course covered in the material.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

## Presentation

Answer each item below and select the "Save" button to save your responses. You must select the "Save" button before going to another section or leaving this page to save the answers you have provided. If you are unable to complete the section, you may save your answers and come back to complete at a later time. All items must be answered for a section to be considered complete.

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To answer each item, select the appropriate rating from the following scale:

- 5 - VERY GOOD ALIGNMENT
- 4 - GOOD ALIGNMENT
- 3 - FAIR ALIGNMENT
- 2 - POOR ALIGNMENT
- 1 - VERY POOR/NO ALIGNMENT

Upon completion of all Areas of Review, the Recommendation link will become available with a record of how you scored each section of the evaluation.

- Reviewers are instructed that submissions should be consistently rated as 5 or 4 to be recommended for adoption. Materials that are consistently rated 2 or 1 are not expected to be recommended for adoption.
- Justification and Comments are strongly encouraged for each rating. Please use the Justification/Comments section to list any strengths, weaknesses, concerns, issues, and/or to provide examples supporting the rating. Your comments maybe used by publishers to help them improve their products

- Additional information regarding the Content, Presentation, and Learning requirements are located in the Science K-12 Specifications for the 2017-18 Florida State Adoption of Instructional Materials.

Each set of materials submitted for adoption is evaluated based on each benchmark for that course and the Content, Presentation, and Learning items included in this rubric.

**A. Comprehensiveness of Student and Teacher Resources**1. A. The comprehensiveness of the student resources address the targeted learning outcomes without requiring the teacher to prepare additional teaching materials for the course.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

SE textbook, online resources include: student workbook, practice, games, videos, laboratory activities, and extensions for learning

**B. Alignment of Instructional Components**2. B. All components of the major tool align with the curriculum and each other.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

follows standards and academic plan

**C. Organization of Instructional Materials**3. C. The materials are consistent and logical organization of the content for the subject area.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

each chapter represents a body system and book follows normal course progression

**D. Readability of Instructional Materials**4. D. Narrative and visuals engage students in reading or listening as well as in understanding of the content at a level appropriate to the students' abilities.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

diagrams, online videos and animations

**E. Pacing of Content**5. E. The amount of content presented at one time or the pace at which it is presented must be of a size or rate that allows students to perceive and understand it.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

each chapter is broken down in to sections for the main concepts of the system

**Accessibility**6. The material contains presentation, navigation, study tool and assistive supports that aid students, including those with disabilities, to access and interact with the material. (For assistance refer to the answers on the UDL questionnaire).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

summary outline and study guide at the end of each chapter, online student workbook

7. In general, how well does the submission satisfy PRESENTATION requirements? (The comments should support your responses to the questions in the Presentation section).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

Material follows a logical order of body systems for the course. Each chapter is broken down by key concepts. There are diagrams and visuals to portray key organs and processes for each body system. The online tools allow for student engagement with activities, workbook, and visuals.

## Learning

Answer each item below and select the "Save" button to save your responses. You must select the "Save" button before going to another section or leaving this page to save the answers you have provided. If you are unable to complete the section, you may save your answers and come back to complete at a later time. All items must be answered for a section to be considered complete.

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**A. Motivational Strategies**1. A. Instructional materials include features to maintain learner motivation.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

visuals are very engaging, real world connections

**B. Teaching a Few "Big Ideas"**2. B. Instructional materials thoroughly teach a few important ideas, concepts, or themes.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

each body system is thoroughly explained

**C. Explicit Instruction**3. C. The materials contain clear statements of information and outcomes.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

The learning outcomes listed at the beginning of each chapter with practice at the end of the each section. The summary outline at the end of each chapter summarizes all the key material.

**D. Guidance and Support**4. D. The materials provide guidance and support to help students safely and successfully become more independent learners and thinkers.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

guided questions throughout the chapter, focus areas and facts presented throughout the chapter

5. D. Guidance and support must be adaptable to developmental differences and various learning styles.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

online tools provide many different opportunities for practice for various learning styles

**E. Active Participation of Students**6. E. The materials engage the physical and mental activity of students during the learning process.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

online tools provide many opportunities for engagement

7. E. Rate how well the materials include organized activities that are logical extensions of content, goals, and objectives.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities, extension activities

**F. Targeted Instructional Strategies**8. F. Instructional materials include the strategies known to be successful for teaching the learning outcomes targeted in the curriculum requirements.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

study strategies throughout the book

9. F. The instructional strategies incorporated in the materials are effective in teaching the targeted outcomes.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

**G. Targeted Assessment Strategies**10. G. The materials correlate assessment strategies to the desired learning outcomes.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

teachers can keep track of student progress online and track data

11. G. the assessment strategies incorporated in the materials are effective in assessing the learners' performance with regard to the targeted outcomes.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

**Universal Design for Learning**12. This submission incorporates strategies, materials, activities, etc., that consider the needs of all students.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

Many different types of extensions and opportunities for learning online

**Mathematical Practice**13. Do you observe the appropriate application of Mathematical Practices (MP) as applicable?

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

lab data analysis sections practice interpreting graphs and data

14. In general, does the submission satisfy LEARNING requirements? (The comments should support your responses to the questions in the Learning section.)

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

The book and online tools allow many opportunities for student engagement and ownership of the learning process. Each section has learning outcomes at the beginning and practice at the end, so students can assess their comprehension of the section. There are many study strategies throughout the book that guide the student's learning. Online, there is a student workbook for practice and various interactive visuals and videos.

## Standards

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When looking at standards alignment reviewers should consider not only the robustness of the standard coverage but also the content complexity (depth of knowledge level) if appropriate. More information on content complexity as it relates to Florida standards can be found at: [http://www.cpalms.org/Uploads/docs/CPALMS/initiatives/contentcomplexity/CPALMS\\_ccdefinitions\\_140711.pdf](http://www.cpalms.org/Uploads/docs/CPALMS/initiatives/contentcomplexity/CPALMS_ccdefinitions_140711.pdf) For example, if the standard is marked as a level 3 (strategic reasoning and complex thinking) then the materials coverage should reflect this. If the materials coverage is only sufficient to allow for recall (level 1) then this should be reflected in the points assigned.

1. **SC.912.L.14.11:** Classify and state the defining characteristics of epithelial tissue, connective tissue, muscle tissue, and nervous tissue.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

Each type of epithelial, connective, muscle and nervous tissue is represented with pictures and a thorough description of location and function

2. **SC.912.L.14.12:** Describe the anatomy and histology of bone tissue.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
pictures and explanation

3. **SC.912.L.14.13:** Distinguish between bones of the axial skeleton and the appendicular skeleton.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
very thorough explanation that distinguishes the bones of each, practice questions

4. **SC.912.L.14.14:** Identify the major bones of the axial and appendicular skeleton.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
diagram that distinguishes the bones of each

5. **SC.912.L.14.16:** Describe the anatomy and histology, including ultrastructure, of muscle tissue.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
pictures and explanation of skeletal, cardiac and smooth

6. **SC.912.L.14.17:** List the steps involved in the sliding filament of muscle contraction.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
explanation and diagrams of the neuromuscular junction, sliding filament model and the individual sarcomere

7. **SC.912.L.14.18:** Describe signal transmission across a myoneural junction.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
All major parts of the myoneural junction are explained, and there is a diagram that labels all the parts, laboratory activity

8. **SC.912.L.14.20:** Identify the major muscles of the human on a model or diagram.

**Remarks/Examples:**

Refer to MAFS.K12.MP.4: Model with mathematics.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
use the practice sections explain some mathematical concepts for Anatomy and Physiology

9. **SC.912.L.14.21:** Describe the anatomy, histology, and physiology of the central and peripheral nervous systems and name the major divisions of the nervous system.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
chapter 9 is broken down in to the components of the central and peripheral nervous systems with explanations and diagrams, practice with questions and labeling diagrams in student workbook

10. **SC.912.L.14.23:** Identify the parts of a reflex arc.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
explanation with a table that describes all the parts of a reflex arc and diagram that shows the anatomy of a reflex

11. **SC.912.L.14.24:** Identify the general parts of a synapse and describe the physiology of signal transmission across a synapse.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
explanation and diagrams of a synaptic transmission, action potential and impulse conduction

12. **SC.912.L.14.25:** Identify the major parts of a cross section through the spinal cord.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
explanation and diagrams

13. **SC.912.L.14.26:** Identify the major parts of the brain on diagrams or models.

**Remarks/Examples:**

Annually Assessed on Biology EOC.

Florida Standards Connections: MAFS.K12.MP.4: Model with mathematics.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

diagrams in student textbook and practice in student workbook and laboratory activity

14. **SC.912.L.14.28:** Identify the major functions of the spinal cord.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

a brief explanation of the ascending and descending tracts

15. **SC.912.L.14.29:** Define the terms endocrine and exocrine.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

very briefly, there needs to be more of the differentiation in the endocrine chapter

16. **SC.912.L.14.30:** Compare endocrine and neural controls of physiology.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

explanation and table that compares neural and endocrine controls in the body

17. **SC.912.L.14.32:** Describe the anatomy and physiology of the endocrine system.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

All glands and hormones are identified with their functions, diagrams of the structure of the glands and some of the major feedback loops

18. **SC.912.L.14.33:** Describe the basic anatomy and physiology of the reproductive system.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

all major structures of the male and female reproductive systems are explained with location and functions and there are diagrams

19. **SC.912.L.14.34:** Describe the composition and physiology of blood, including that of the plasma and the formed elements.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

all the components of plasma and the blood cells are explained, there are diagrams of a blood smear, centrifuged blood sample and the elements that compose blood

20. **SC.912.L.14.35:** Describe the steps in hemostasis, including the mechanism of coagulation. Include the basis for blood typing and transfusion reactions.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

a thorough explanation broken down in to each stage, there are diagrams for the steps in a platelet plug formation and the mechanisms of hemostasis

21. **SC.912.L.14.36:** Describe the factors affecting blood flow through the cardiovascular system.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

some factors are discussed, there could be further discussion of some other factors that affect blood flow

22. **SC.912.L.14.38:** Describe normal heart sounds and what they mean.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

A very brief section on heart sounds in Chapter 13. There is also a laboratory practice activity investigates heart sounds,

23. **SC.912.L.14.39:** Describe hypertension and some of the factors that produce it.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

There is a very brief paragraph on hypertension in a Focus section in the margin of Chapter 13

24. **SC.912.L.14.41:** Describe fetal circulation and changes that occur to the circulatory system at birth.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

very thorough explanation with diagrams which show the anatomy of fetal circulation and a table that explains fetal cardiovascular adaptations

25. **SC.912.L.14.42:** Describe the anatomy and the physiology of the lymph system.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT



Justification:

All the major structures are explained and there are diagrams showing the locations and anatomy of all structures. All types of immunity are also explained.

26. **SC.912.L.14.44:** Describe the physiology of the respiratory system including the mechanisms of ventilation, gas exchange, gas transport and the mechanisms that control the rate of ventilation.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

All major structures are explained and there are diagrams of each. A section for breathing mechanism explains ventilation, gas exchange, gas transport and the control of ventilation.

27. **SC.912.L.14.46:** Describe the physiology of the digestive system, including mechanical digestion, chemical digestion, absorption and the neural and hormonal mechanisms of control.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

The physiology of digestion is explained with each structure of the digestive system. There are very detailed diagrams of each structure and organ of the digestive system.

28. **SC.912.L.14.47:** Describe the physiology of urine formation by the kidney.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

detailed explanation with diagrams for the structures associated with urine production, glomerular filtration, and tubular reabsorption

29. **SC.912.L.14.49:** Identify the major functions associated with the sympathetic and parasympathetic nervous systems.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

explanation and diagrams of the the functions of the sympathetic and parasympathetic

30. **SC.912.L.14.50:** Describe the structure of vertebrate sensory organs. Relate structure to function in vertebrate sensory systems.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

all senses are explained and there are diagrams of the tongue, ear, and eyes

31. **SC.912.L.14.51:** Describe the function of the vertebrate integumentary system.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

detailed explanation of skin with diagrams and functions, but there is very minimal explanation of the accessory organs of the skin (hair and nail)

32. **SC.912.L.14.52:** Explain the basic functions of the human immune system, including specific and nonspecific immune response, vaccines, and antibiotics.

**Remarks/Examples:**

Annually Assessed on Biology EOC. Also assesses SC.912.L.14.6 HE.912.C.1.7 and HE.912.C.1.5.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

included in the lymphatic system chapter, includes explanations of immune responses, vaccines and antibiotics

33. **SC.912.L.16.8:** Explain the relationship between mutation, cell cycle, and uncontrolled cell growth potentially resulting in cancer.

**Remarks/Examples:**

Integrate HE.912.C.1.7. Analyze how heredity and family history can impact personal health.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

section in the cell chapter discusses mutation, cell cycle, and uncontrolled cellular growth

34. **SC.912.L.18.1:** Describe the basic molecular structures and primary functions of the four major categories of biological macromolecules.

**Remarks/Examples:**

Annually assessed on Biology EOC. Also assesses SC.912.L.18.11.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

All 4 macromolecules are explained with functions and pictures in Chapter 2, practice problems in workbook

35. **SC.912.L.18.11:** Explain the role of enzymes as catalysts that lower the activation energy of biochemical reactions. Identify factors, such as pH and temperature, and their effect on enzyme activity.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

very brief explanation, could have went in to more details about factors that affect enzyme activity

36. **SC.912.N.1.1:** Define a problem based on a specific body of knowledge, for example: biology, chemistry, physics, and earth/space science, and do the following:

1. Pose questions about the natural world, (Articulate the purpose of the investigation and identify the relevant scientific concepts).
2. Conduct systematic observations, (Write procedures that are clear and replicable. Identify observables and examine relationships between test (independent) variable and outcome (dependent) variable. Employ appropriate methods for accurate and consistent observations; conduct and record measurements at appropriate levels of precision. Follow safety guidelines).
3. Examine books and other sources of information to see what is already known,
4. Review what is known in light of empirical evidence, (Examine whether available empirical evidence can be interpreted in terms of existing knowledge and models, and if not, modify or develop new models).
5. Plan investigations, (Design and evaluate a scientific investigation).
6. Use tools to gather, analyze, and interpret data (this includes the use of measurement in metric and other systems, and also the generation and interpretation of graphical representations of data, including data tables and graphs), (Collect data or evidence in an organized way. Properly use instruments, equipment, and materials (e.g., scales, probeware, meter sticks, microscopes, computers) including set-up, calibration, technique, maintenance, and storage).
7. Pose answers, explanations, or descriptions of events,
8. Generate explanations that explicate or describe natural phenomena (inferences),
9. Use appropriate evidence and reasoning to justify these explanations to others,
10. Communicate results of scientific investigations, and
11. Evaluate the merits of the explanations produced by others.

**Remarks/Examples:**

Florida Standards Connections for 6-12 Literacy in Science

For Students in Grades 9-10

LAFS.910.RST.1.1 Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.

LAFS.910.RST.1.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks attending to special cases or exceptions defined in the text.

LAFS.910.RST.3.7 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.

LAFS.910.WHST.1.2 Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

LAFS.910.WHST.3.9 Draw evidence from informational texts to support analysis, reflection, and research.

For Students in Grades 11-12

LAFS.1112.RST.1.1 Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.

LAFS.1112.RST.1.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks analyze the specific results based on explanations in the text.

LAFS.1112.RST.3.7 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

LAFS.1112.WHST.1.2 Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

LAFS.1112.WHST.3.9 Draw evidence from informational texts to support analysis, reflection, and research.

## Florida Standards Connections for Mathematical Practices

MAFS.K12.MP.1: Make sense of problems and persevere in solving them.

MAFS.K12.MP.2: Reason abstractly and quantitatively.

MAFS.K12.MP.3: Construct viable arguments and critique the reasoning of others. [Viable arguments include evidence.]

MAFS.K12.MP.4: Model with mathematics.

MAFS.K12.MP.5: Use appropriate tools strategically.

MAFS.K12.MP.6: Attend to precision.

MAFS.K12.MP.7: Look for and make use of structure.

MAFS.K12.MP.8: Look for and express regularity in repeated reasoning.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities, use the practice sections explain mathematical applications, lab data analysis sections have students analyze graphs and charts with critical thinking questions

37. **SC.912.N.1.2:** Describe and explain what characterizes science and its methods.

**Remarks/Examples:**

Science is characterized by empirical observations, testable questions, formation of hypotheses, and experimentation that results in stable and replicable results, logical reasoning, and coherent theoretical constructs.

Florida Standards Connections: MAFS.K12.MP.3: Construct viable arguments and critique the reasoning of others.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities

38. **LAFS.1112.RST.1.1:** Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

integrative assessment sections have students analyze medical texts, and lab data analysis sections have students analyze lab data

39. **LAFS.1112.RST.1.2:** Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

integrative assessments, genetic engineering sections, lab data analysis sections

40. **LAFS.1112.RST.1.3:** Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities in online workbook

41. **LAFS.1112.RST.2.4:** Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

lab data analysis sections, focus sections throughout the book, diagrams and charts

42. **LAFS.1112.RST.2.5:** Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

book is organized according to body system and follows normal course progression

43. **LAFS.1112.RST.2.6:** Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

theme at the beginning of the chapter, genetic engineering sections, integrative assessments

44. **LAFS.1112.RST.3.7:** Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

many links to extension of learning in online tools, integrative assessments in textbook, could be more links to online learning in SE textbook

45. **LAFS.1112.RST.3.8:** Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities, integrative assessments, lab data analysis

46. **LAFS.1112.RST.3.9:** Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

many references from medical journals to topics that apply to the material covered in each chapter, use the practice sections, and the theme for the chapter

47. **LAFS.1112.RST.4.10:** By the end of grade 12, read and comprehend science/technical texts in the grades 11–12 text complexity band independently and proficiently.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

many links to medical research and journals in SE textbook and the online tolls

48. **LAFS.1112.SL.1.1:** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

a. Come to discussions prepared, having read and researched material under study; explicitly draw on that preparation by referring to evidence from texts and other research on the topic or issue to stimulate a thoughtful, well-reasoned exchange of ideas.

b. Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.

c. Propel conversations by posing and responding to questions that probe reasoning and evidence; ensure a hearing for a full range of positions on a topic or issue; clarify, verify, or challenge ideas and conclusions; and promote divergent and creative perspectives.

d. Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the task.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

study strategies throughout the book and many lessons for discussions and activities in TE

49. **LAFS.1112.SL.1.2:** Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

links to many different sources and practice in online workbook

50. **LAFS.1112.SL.1.3:** Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

links to medical journals with critical thinking questions

51. **LAFS.1112.SL.2.4:** Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

use the practice sections and integrative assessments

52. **LAFS.1112.SL.2.5:** Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

many links to online investigations and extensions

53. **LAFS.1112.WHST.1.1:** Write arguments focused on discipline-specific content.

- Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences the claim(s), counterclaims, reasons, and evidence.
- Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant data and evidence for each while pointing out the strengths and limitations of both claim(s) and counterclaims in a discipline-appropriate form that anticipates the audience's knowledge level, concerns, values, and possible biases.
- Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
- Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- Provide a concluding statement or section that follows from or supports the argument presented.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

integrative assessments, diseases sections throughout the book, career corners, and themes at the beginning of each chapter

54. **LAFS.1112.WHST.1.2:** Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

- Introduce a topic and organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.
- Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.
- Use varied transitions and sentence structures to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.
- Use precise language, domain-specific vocabulary and techniques such as metaphor, simile, and analogy to manage the complexity of the topic; convey a knowledgeable stance in a style that responds to the discipline and context as well as to the expertise of likely readers.
- Provide a concluding statement or section that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

integrative assessments and lab data analysis sections

55. **LAFS.1112.WHST.2.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

study strategies throughout the chapter, integrative assessments

56. **LAFS.1112.WHST.2.5:** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

VERY GOOD ALIGNMENT  **GOOD ALIGNMENT**  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

study strategies

57. **LAFS.1112.WHST.2.6:** Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

links to online extensions

58. **LAFS.1112.WHST.3.7:** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
laboratory activities

59. **LAFS.1112.WHST.3.8:** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
links to online extensions and critical thinking questions that require students to perform online research from reputable sources

60. **LAFS.1112.WHST.3.9:** Draw evidence from informational texts to support analysis, reflection, and research.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
links to online extensions and activities for investigation

61. **LAFS.1112.WHST.4.10:** Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
chapters are divided into sections and each sections starts with learning outcomes and ends with practice questions

62. **MAFS.912.F-IF.2.4:** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
laboratory activities include having students make accurate graphs and tables

63. **MAFS.912.F-IF.3.7:** Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.

- Graph linear and quadratic functions and show intercepts, maxima, and minima.
- Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.
- Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.
- Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.
- Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude, and using phase shift.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
laboratory activities include having students make accurate graphs and tables

64. **MAFS.912.N-Q.1.1:** Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
laboratory activities include having students make accurate graphs and tables

65. **MAFS.912.N-Q.1.3:** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
laboratory activities include having students make accurate graphs and tables

66. **MAFS.912.S-ID.1.1:** Represent data with plots on the real number line (dot plots, histograms, and box plots).

#### Remarks/Examples:

In grades 6 – 8, students describe center and spread in a data distribution. Here they choose a summary statistic appropriate to the characteristics of the data distribution, such as the shape of the distribution or the existence of extreme data points.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
laboratory activities include having students make accurate graphs and tables

67. **MAFS.912.S-ID.1.2:** Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.

**Remarks/Examples:**

In grades 6 – 8, students describe center and spread in a data distribution. Here they choose a summary statistic appropriate to the characteristics of the data distribution, such as the shape of the distribution or the existence of extreme data points.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities include having students make accurate graphs and tables

68. **MAFS.912.S-ID.1.3:** Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).

**Remarks/Examples:**

In grades 6 – 8, students describe center and spread in a data distribution. Here they choose a summary statistic appropriate to the characteristics of the data distribution, such as the shape of the distribution or the existence of extreme data points.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities include having students make accurate graphs and tables

69. **MAFS.912.S-ID.1.4:** Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities include having students make accurate graphs and tables

70. **MAFS.912.S-ID.2.5:** Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities include having students make accurate graphs and tables

71. **MAFS.912.S-ID.2.6:** Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.

a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, and exponential models.

b. Informally assess the fit of a function by plotting and analyzing residuals.

c. Fit a linear function for a scatter plot that suggests a linear association.

**Remarks/Examples:**

Students take a more sophisticated look at using a linear function to model the relationship between two numerical variables. In addition to fitting a line to data, students assess how well the model fits by analyzing residuals.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

laboratory activities include having students make accurate graphs and tables

72. **HE.912.C.1.3:** Evaluate how environment and personal health are interrelated.

**Remarks/Examples:**

Food options within a community; prenatal-care services; availability of recreational facilities; air quality; weather-safety awareness; and weather, air, and water conditions.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:

each chapter has sections that discuss various diseases associated with the body system, they discuss the environmental factors that contribute to disease and health

73. **HE.912.C.1.5:** Analyze strategies for prevention, detection, and treatment of communicable and chronic diseases.

**Remarks/Examples:**

Health prevention, detection, and treatment of: breast and testicular cancer, suicide, obesity, and industrial-related chronic disease.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
cancer, health prevention, tobacco use, health lifestyle choices, atherosclerosis, AIDS

74. **HE.912.C.1.7:** Analyze how heredity and family history can impact personal health.

**Remarks/Examples:**

Drug use, family obesity, heart disease, mental health, and non-communicable illness or disease.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
obesity, heart disease, diabetes, cancer

75. **ELD.K12.ELL.SC.1:** English language learners communicate information, ideas and concepts necessary for academic success in the content area of Science.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
online version has different languages, diagrams, tables

76. **ELD.K12.ELL.SI.1:** English language learners communicate for social and instructional purposes within the school setting.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT

Justification:  
study strategies, online workbook and activities