

## INSTRUCTIONAL MATERIALS ADMINISTRATOR

BID 3317

### Recommendation

Yes

**Comments:** This material includes detailed information and many interactive features and is thus very engaging. There are numerous group activities included and a multitude of ways to expand on the information through illustrative graphs, calculations, and experiments. I think the material is quite suitable for middle school science students and would be ideal for use in a flipped classroom. The interactive island demonstrating food webs and what happens when specific trophic levels are disturbed is especially effective. I also think the students would get a lot out of reconstructing the history of the Earth in their hallways and others passing through the hallways would learn a lot as well. These are just two examples of the many fascinating activities included in this curriculum.

### Material for Review

**Course:** M/J Life Science, Advanced (2000020)  
**Title:** Science Bits - M/J Life Science, Advanced , Edition: 1st  
**Copyright:** 2017  
**Author:** International Science Teaching Foundation  
**Grade Level:** 6 - 8

### Content

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

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- 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. Alignment with curriculum** 1. A. The content aligns with the state's standards and benchmarks for subject, grade level and learning outcomes.

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

Justification:

Concepts are presented in a variety of ways, many connections are made to the real world, and there are a variety of interactive activities to test and reinforce knowledge. These align with the standards well.

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:

Suitable for middle school science.

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:

The modules are appropriate for a flipped-classroom design or for working in pairs.

**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:

Concepts are presented in a variety of ways and there are multiple layers of information.

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:

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:

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:

The modules present concepts and associated activities suitable for a class period. It is also possible for part of the module to be done as homework before class so that class time can be spent on the activities with time to share results.

**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:

I did not find sources cited specifically (maybe I missed it?) but the subject matter presented reflects expert knowledge.

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:

**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:

I did not find any 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:

Material is presented objectively. I did notice that Darwin's ideas were described as "brilliant" and that is an opinion that could be presented more objectively (e.g., "groundbreaking, transformative, novel, etc.).

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:

Excellent island activity showing the impacts of biotic and abiotic changes (e.g., temperature changes, invasive species introductions).

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:

**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:

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:

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:

The videos at the start of each module provide real-world context and will draw students into the subject matter.

**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:

There are real-world examples and activities throughout, which show the relevance of science to our everyday lives. This is very well done.

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:

Some connections to math, chemistry, statistics and other disciplines are included.

**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:

**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

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**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:

The modules are self-contained and complete with introductory videos, explanatory text and interactive activities. I wonder if a textbook would also be required for more depth in certain areas

**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:

It would be helpful if there were links to the standards addressed by each lesson. This could be part of the Teacher's Guide (compass icon). This would be much easier than referring to a separate table.

**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:

**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:

The interactive format is very engaging. There are videos, quizzes, interactive graphs, and other features that teach and reinforce the concepts. This is a particular strength of this curriculum.

**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:

There are multiple layers of information so students can go into depth at their own pace.

**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:

There are many interactive features throughout this curriculum including concept maps, videos, quizzes and activities.

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:

Excellent presentation with many interactive features. It would be helpful if there was a quick home button; right now it requires a few clicks to get home. Also, because there are so many layers of information, it would be great if visited links turned a different color so that incomplete/unvisited sections would stand out as still needing to be completed.

## Learning

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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:

Instructions are clear and there are additional resources for teachers included such as learning objectives, sequence, discussion points, and misconceptions.

**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 module teaches one or a few big ideas with many layers of detail for more information. Each module is, thus, quite self-contained.

**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 opening feature is Engage, which gets students interested in the topic; thus, there is not a clear statement of information and outcomes at the start from the students' perspective. But, each module features a concept map, which indicates where the lesson is headed, and the teachers are provided clear statements of outcomes.

**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:

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:

A variety of interactive and engaging methods are used to reinforce the material and present it in a variety of ways to meet different 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:

Students are presented a variety of activities such as graphing, quizzes, timing events, and performing calculations. These all serve to engage the students during the learning process.

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:

**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:

Teacher materials include learning objectives, sequence, and common misconceptions.

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:

There are self-quizzes along the way and assessments at the conclusion of each module so students and teachers can assess progress and understanding.



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:

The modules include many real-world examples that would be relevant to students regardless of background.

**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:

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:

## 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.6.L.14.1:** Describe and identify patterns in the hierarchical organization of organisms from atoms to molecules and cells to tissues to organs to organ systems to organisms.

### Remarks/Examples:

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

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

Justification:

"Formed by Cells" is the module identified as the most in line with this standard. It includes part of the hierarchy explicitly (such as cells to tissues) but not a full hierarchy of atoms-molecules-cells-tissues-organs-organ systems-organisms. "The Living Cell" includes more of the hierarchy.

2. **SC.6.L.14.2:** Investigate and explain the components of the scientific theory of cells (cell theory): all organisms are composed of cells (single-celled or multi-cellular), all cells come from pre-existing cells, and cells are the basic unit of life.

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

Justification:

The Formed by Cells module clearly covers cell theory.

3. **SC.6.L.14.3:** Recognize and explore how cells of all organisms undergo similar processes to maintain homeostasis, including extracting energy from food, getting rid of waste, and reproducing.

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

Justification:

4. **SC.6.L.14.4:** Compare and contrast the structure and function of major organelles of plant and animal cells, including cell wall, cell membrane, nucleus, cytoplasm, chloroplasts, mitochondria, and vacuoles.

**Remarks/Examples:**

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

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

Justification:

Useful diagrams and interactive activities that demonstrate this.

5. **SC.6.L.14.5:** Identify and investigate the general functions of the major systems of the human body (digestive, respiratory, circulatory, reproductive, excretory, immune, nervous, and musculoskeletal) and describe ways these systems interact with each other to maintain homeostasis.

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

Justification:

Multiple modules address this and the concept maps provide useful summaries and graphic depictions.

6. **SC.6.L.14.6:** Compare and contrast types of infectious agents that may infect the human body, including viruses, bacteria, fungi, and parasites.

**Remarks/Examples:**

Integrate HE.6.C.1.8. Explain how body systems are impacted by hereditary factors and infectious agents.

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

Justification:

I did not find this in the modules named for this standard.

7. **SC.6.L.15.1:** Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.

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

Justification:

This is covered in detail including providing students with interactive activities such as constructing a phylogenetic tree and using a dichotomous key.

8. **SC.6.N.1.1:** Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.

**Remarks/Examples:**

Florida Standards Connections: LAFS.68.RST.1.3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

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

Justification:

The cancer poster activity is effective and has students research, organize their work and present their findings. They are not carrying out an experiment, testing a hypothesis, and taking measurements, however, and I did not find this in the activities in the Explain section of The Living Cell, as indicated in the standards alignment.

9. **SC.6.N.1.2:** Explain why scientific investigations should be replicable.

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

Justification:

The scientific method is covered in What is Science and throughout the modules; however, replication could be more explicitly covered in What is Science with the addition of a slide or two (covering how methods are clearly described in scientific papers so that experiments can be repeated and how important it is for results to be replicable to show they are not just flukes).

10. **SC.6.N.1.3:** Explain the difference between an experiment and other types of scientific investigation, and explain the relative benefits and limitations of each.

**Remarks/Examples:**

Explain that an investigation is observing or studying the natural world, without interference or manipulation, and an experiment is an investigation that involves variables (independent/manipulated and dependent/ outcome) and establishes cause-and-effect relationships (Schwartz, 2007).

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

11. **SC.6.N.1.4:** Discuss, compare, and negotiate methods used, results obtained, and explanations among groups of students conducting the same investigation.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT  
Justification:  
This is integrated throughout with many classroom activities. Even some of the individual activities could be expanded into classroom activities.

12. **SC.6.N.1.5:** Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.

**Remarks/Examples:**

Florida Standards Connections: LAFS.68.RST.3.7 LAFS.68.WHST.1.2 and, LAFS.68.WHST.3.9.

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

13. **SC.6.N.2.1:** Distinguish science from other activities involving thought.

**Remarks/Examples:**

Thought refers to any mental or intellectual activity involving an individual's subjective consciousness. Science is a systematic process that pursues, builds and organizes knowledge in the form of testable explanations and predictions about the natural world.

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

14. **SC.6.N.2.2:** Explain that scientific knowledge is durable because it is open to change as new evidence or interpretations are encountered.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT  
Justification:  
This is covered thoroughly in the What is Science? module.

15. **SC.6.N.2.3:** Recognize that scientists who make contributions to scientific knowledge come from all kinds of backgrounds and possess varied talents, interests, and goals.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT  
Justification:  
One way this is covered is by describing science in every day life and that it is a process not just for scientists but by anyone using the scientific method (including, for example, shepherds assessing their flocks).

16. **SC.6.N.3.1:** Recognize and explain that a scientific theory is a well-supported and widely accepted explanation of nature and is not simply a claim posed by an individual. Thus, the use of the term theory in science is very different than how it is used in everyday life.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT  
Justification:  
Covered extensively in What is Science?

17. **SC.6.N.3.2:** Recognize and explain that a scientific law is a description of a specific relationship under given conditions in the natural world. Thus, scientific laws are different from societal laws.

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

18. **SC.6.N.3.3:** Give several examples of scientific laws.

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

19. **SC.6.N.3.4:** Identify the role of models in the context of the sixth grade science benchmarks.

**Remarks/Examples:**

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

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



Justification:

20. **SC.7.L.15.1:** Recognize that fossil evidence is consistent with the scientific theory of evolution that living things evolved from earlier species.

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

Justification:

Covered thoroughly and interactively in Evolution and History of the Earth modules.

21. **SC.7.L.15.2:** Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.

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

Justification:

The Evolution module covers this standard thoroughly and includes interactive photos and videos including a video demonstrating speciation.

22. **SC.7.L.15.3:** Explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.

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

Justification:

23. **SC.7.L.16.1:** Understand and explain that every organism requires a set of instructions that specifies its traits, that this hereditary information (DNA) contains genes located in the chromosomes of each cell, and that heredity is the passage of these instructions from one generation to another. **Remarks/Examples:**

Integrate HE.7.C.1.4. Describe how heredity can affect personal health.

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

Justification:

The Heredity module includes extensive coverage of inherited diseases and a group project/poster activity.

24. **SC.7.L.16.2:** Determine the probabilities for genotype and phenotype combinations using Punnett Squares and pedigrees.

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

Justification:

Heredity module explains this and provides examples of Punnett Squares and pedigrees and has students creating their own.

25. **SC.7.L.16.3:** Compare and contrast the general processes of sexual reproduction requiring meiosis and asexual reproduction requiring mitosis.

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

Justification:

Covers meiosis and mitosis including animations.

26. **SC.7.L.16.4:** Recognize and explore the impact of biotechnology (cloning, genetic engineering, artificial selection) on the individual, society and the environment.

**Remarks/Examples:**

Integrate HE.7.C.1.4. Describe how heredity can affect personal health.

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

Justification:

The Molecular Genetics module includes biotechnology applications affecting medicine, health, and livestock.

27. **SC.7.L.17.1:** Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.

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

Justification:

This is covered in the Flow of Energy and Matter in Ecosystems module. Interactive features include animations and graphs.

28. **SC.7.L.17.2:** Compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.

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

Justification:

Graphs show the relationships among organisms and would be good basis for discussion and elaboration.

29. **SC.7.L.17.3:** Describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.

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

Justification:

The interactive island activity is excellent!

30. **SC.7.N.1.1:** Define a problem from the seventh grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.

**Remarks/Examples:**

Florida Standards Connections: LAFS.68.RST.1.3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

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

Justification:

31. **SC.7.N.1.2:** Differentiate replication (by others) from repetition (multiple trials).

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

Justification:

32. **SC.7.N.1.3:** Distinguish between an experiment (which must involve the identification and control of variables) and other forms of scientific investigation and explain that not all scientific knowledge is derived from experimentation.

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

Justification:

33. **SC.7.N.1.4:** Identify test variables (independent variables) and outcome variables (dependent variables) in an experiment.

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

Justification:

34. **SC.7.N.1.5:** Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.

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

Justification:

35. **SC.7.N.1.6:** Explain that empirical evidence is the cumulative body of observations of a natural phenomenon on which scientific explanations are based.

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

Justification:

36. **SC.7.N.1.7:** Explain that scientific knowledge is the result of a great deal of debate and confirmation within the science community.

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

Justification:

37. **SC.7.N.2.1:** Identify an instance from the history of science in which scientific knowledge has changed when new evidence or new interpretations are encountered.

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

Justification:

38. **SC.7.N.3.1:** Recognize and explain the difference between theories and laws and give several examples of scientific theories and the evidence that supports them.

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

Justification:

39. **SC.7.N.3.2:** Identify the benefits and limitations of the use of scientific models.

**Remarks/Examples:**

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

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

Justification:

40. **SC.8.L.18.1:** Describe and investigate the process of photosynthesis, such as the roles of light, carbon dioxide, water and chlorophyll; production of food; release of oxygen.

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

Justification:

The Nutrition module covers this extensively including a series of experiments with results.

41. **SC.8.L.18.2:** Describe and investigate how cellular respiration breaks down food to provide energy and releases carbon dioxide.

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

Justification:

There are ideas for 6 different student presentations in the Nutrition module.

42. **SC.8.L.18.3:** Construct a scientific model of the carbon cycle to show how matter and energy are continuously transferred within and between organisms and their physical environment.

**Remarks/Examples:**

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

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

Justification:

43. **SC.8.L.18.4:** Cite evidence that living systems follow the Laws of Conservation of Mass and Energy.

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

Justification:

44. **SC.8.N.1.1:** Define a problem from the eighth grade curriculum using appropriate reference materials to support scientific understanding, plan and carry out scientific investigations of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.

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

Justification:

45. **SC.8.N.1.2:** Design and conduct a study using repeated trials and replication.

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

Justification:

46. **SC.8.N.1.3:** Use phrases such as "results support" or "fail to support" in science, understanding that science does not offer conclusive 'proof' of a knowledge claim.

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

Justification:

47. **SC.8.N.1.4:** Explain how hypotheses are valuable if they lead to further investigations, even if they turn out not to be supported by the data.

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

Justification:

48. **SC.8.N.1.5:** Analyze the methods used to develop a scientific explanation as seen in different fields of science.

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

Justification:

49. **SC.8.N.1.6:** Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence.

**Remarks/Examples:**

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

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

Justification:

50. **SC.8.N.2.1:** Distinguish between scientific and pseudoscientific ideas.

**Remarks/Examples:**

Science is testable, pseudo-science is not science seeks falsifications, pseudo-science seeks confirmations (e.g. astrology is pseudoscience).

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

Justification:

This is covered extensively in What is Science including a section on pseudoscience and examples of questions not answerable by science.

51. **SC.8.N.2.2:** Discuss what characterizes science and its methods.

**Remarks/Examples:**

Science is the systematic, organized inquiry that is derived from observations and experimentation that can be verified through testing to explain natural phenomena.

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

Justification:

52. **SC.8.N.3.1:** Select models useful in relating the results of their own investigations.

**Remarks/Examples:**

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

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

Justification:

53. **SC.8.N.3.2:** Explain why theories may be modified but are rarely discarded.

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

Justification:

54. **SC.8.N.4.1:** Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.

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

Justification:

55. **SC.8.N.4.2:** Explain how political, social, and economic concerns can affect science, and vice versa.

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

Justification:

56. **SC.912.L.14.2:** Relate structure to function for the components of plant and animal cells. Explain the role of cell membranes as a highly selective barrier (passive and active transport).

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

Justification:

57. **SC.912.L.14.3:** Compare and contrast the general structures of plant and animal cells. Compare and contrast the general structures of prokaryotic and eukaryotic cells.

**Remarks/Examples:**

Annually Assessed on Biology EOC. Also assesses SC.912.L.14.2.

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

Justification:

This is covered extensively in Formed by Cells.

58. **SC.912.L.15.6:** Discuss distinguishing characteristics of the domains and kingdoms of living organisms.

**Remarks/Examples:**

Annually Assessed on Biology EOC. Also assesses SC.912.L.15.4 SC.912.L.15.5 SC.912.N.1.3 and SC.912.N.1.6.

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

Justification:

59. **SC.912.L.15.13:** Describe the conditions required for natural selection, including: overproduction of offspring, inherited variation, and the struggle to survive, which result in differential reproductive success.

**Remarks/Examples:**

Annually assessed on Biology EOC. Also assesses SC.912.L.15.14, SC.912.L.15.15, and SC.912.N.1.3.

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

Justification:

60. **SC.912.L.16.2:** Discuss observed inheritance patterns caused by various modes of inheritance, including dominant, recessive, codominant, sex-linked, polygenic, and multiple alleles.

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

Justification:

61. **SC.912.L.16.14:** Describe the cell cycle, including the process of mitosis. Explain the role of mitosis in the formation of new cells and its importance in maintaining chromosome number during asexual reproduction.

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

62. **SC.912.L.16.16:** Describe the process of meiosis, including independent assortment and crossing over. Explain how reduction division results in the formation of haploid gametes or spores.

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

63. **SC.912.L.17.6:** Compare and contrast the relationships among organisms, including predation, parasitism, competition, commensalism, and mutualism.

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

64. **SC.912.L.17.9:** Use a food web to identify and distinguish producers, consumers, and decomposers. Explain the pathway of energy transfer through trophic levels and the reduction of available energy at successive trophic levels.

**Remarks/Examples:**

Annually assessed on Biology EOC. Also assesses SC.912.E.7.1.

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

65. **SC.912.L.18.7:** Identify the reactants, products, and basic functions of photosynthesis.

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

66. **SC.912.L.18.8:** Identify the reactants, products, and basic functions of aerobic and anaerobic cellular respiration.

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

67. **SC.912.L.18.9:** Explain the interrelated nature of photosynthesis and cellular respiration.

**Remarks/Examples:**

Annually assessed on Biology EOC. Also assesses SC.912.L.18.7 SC.912.L.18.8 SC.912.L.18.10.

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

68. **LAFS.68.RST.1.1:** Cite specific textual evidence to support analysis of science and technical texts.

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

69. **LAFS.68.RST.1.2:** Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

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

70. **LAFS.68.RST.1.3:** Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

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

71. **LAFS.68.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 6–8 texts and topics.

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

72. **LAFS.68.RST.2.5:** Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.

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

73. **LAFS.68.RST.2.6:** Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.



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

74. **LAFS.68.RST.3.7:** Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT  
Justification:  
There are many flowcharts, graphs, tables, models, animations and diagrams used throughout. These are very effective at conveying information and giving students practice using these tools.

75. **LAFS.68.RST.3.8:** Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

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

76. **LAFS.68.RST.3.9:** Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.

**VERY GOOD ALIGNMENT**  GOOD ALIGNMENT  FAIR ALIGNMENT  POOR ALIGNMENT  VERY POOR/NO ALIGNMENT  
Justification:  
Many examples of this including student posters and experiments that would be ideal for sharing and comparing and contrasting results.

77. **LAFS.68.WHST.1.1:** Write arguments focused on discipline-specific content.

- Introduce claim(s) about a topic or issue, acknowledge and distinguish the claim(s) from alternate or opposing claims, and organize the reasons and evidence logically.
- Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.
- Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.
- Establish and maintain a formal style.
- Provide a concluding statement or section that follows from and supports the argument presented.

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

78. **LAFS.68.WHST.1.2:** Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.

- Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information into broader categories as appropriate to achieving purpose; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
- Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
- Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.
- Use precise language and domain-specific vocabulary to inform about or explain the topic.
- Establish and maintain a formal style and objective tone.
- Provide a concluding statement or section that follows from and supports the information or explanation presented.

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

79. **LAFS.68.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:

80. **LAFS.68.WHST.2.5:** With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.

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

81. **LAFS.68.WHST.2.6:** Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.

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

82. **LAFS.68.WHST.3.7:** Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.

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

83. **LAFS.68.WHST.3.8:** Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.

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

Justification:

84. **LAFS.68.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:

85. **LAFS.68.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:

86. **LAFS.7.SL.1.2:** Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.

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

Justification:

87. **LAFS.7.SL.1.3:** Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.

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

Justification:

88. **LAFS.7.SL.2.4:** Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.

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

Justification:

89. **LAFS.7.SL.2.5:** Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.

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

Justification:

90. **MAFS.6.EE.3.9:** Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation  $d = 65t$  to represent the relationship between distance and time.

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

Justification:

91. **MAFS.6.SP.2.4:** Display numerical data in plots on a number line, including dot plots, histograms, and box plots.

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

Justification:

92. **MAFS.6.SP.2.5:** Summarize numerical data sets in relation to their context, such as by:

- a. Reporting the number of observations.
- b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
- c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
- d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

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

Justification:

93. **MAFS.7.SP.2.4:** Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.

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

94. **MAFS.7.SP.3.5:** Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.

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

95. **HE.6.C.1.8:** Examine the likelihood of injury or illness if engaging in unhealthy/risky behaviors.

**Remarks/Examples:**

Obesity related to poor nutrition and inactivity, cancer and chronic lung disease related to tobacco use, injuries caused from failure to use seat restraint, and sexually transmitted diseases caused by sexual activity.

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

96. **HE.7.C.1.3:** Analyze how environmental factors affect personal health.

**Remarks/Examples:**

Food refrigeration, appropriate home heating and cooling, air/water quality, and garbage/trash collection.

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

97. **HE.7.C.1.7:** Describe how heredity can affect personal health.

**Remarks/Examples:**

Sickle-cell anemia, diabetes, and acne.

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

98. **ELD.K.12.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:

99. **ELD.K.12.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: