

# INSTRUCTIONAL MATERIALS ADMINISTRATOR

BID 3320

## Recommendation

Yes

**Comments:** This is an exceptionally well organized offering that is presented in the research proven strategy of the 5E's making it accessible to all levels of teaching professional as well as addressing the diverse learning styles and abilities of middle school students. Although technology is an essential to make the best use of all element the printed text and interactive that can be accessed by individual educators at campuses with limited resources.

## Material for Review

**Course:** M/J Earth/Space Science (2001010)

**Title:** Science Bits - M/J Earth/Space Science , 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.

To answer each item, select the appropriate rating.

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.

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. 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:

Content is methodically and thoroughly aligned

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:

Skill level is idea for audience intended

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:

Adaptable for access levels as well as differentiation.

**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:

Topics contain enough detail to assure benchmark mastery.

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:

Degree of complexity is aligned with standards expectations.

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:

Degree of complexity is appropriate for grade level addressed.

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:

Timing is well measured and appropriate for conventional class timeframes.

**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:

Content expertise is evident not only in lesson design, pacing, but also in teacher support.

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:

High quality resources for both content and pedagogy are evident.

**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:

Accuracy and attention to detail is apparent in text, simulations, photos, and graphic organizers.

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 bias observed.

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:

Presentation of topics represents current science understandings and best teaching practices.

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:

Materials appear well vetted.

**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:

Presentation of topics represents current scientific and practices..

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 reflects a design with deliberate intent for students to master Florida standards.

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:

Content is relevant and engaging for middle school developmental levels.

**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:

Material is relevant to student experiences.

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:

Historic, geographical, mathematical, and language element demonstrate the interdisciplinary nature and merits of scientific study. .

**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:

Care was taken to express the diversity of human expression and is unbiased in this offering.

**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:

No mistreatment was observed.

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:

Benchmarks and Standards are completely and thoroughly addressed in varied forms of text, simulations and allied media.

## 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.

To answer each item, select the appropriate rating.

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.

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:

No additional material need is evident. Offering is exceptionally comprehensive.

**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:

There is a unifying design and flow to the materials that will allow students to approach media without distraction.

**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 unit builds upon the next and facilitates understanding.

**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:

Narratives represent a kaleidoscope of vocal qualities and are engaging and easy to understand. Visuals represent diverse individuals and entice the imagination toward further exploration.

**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:

Information is chunked in appropriate bits.

**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:

Format is easy to use, intuitive, and supported by rollover scaffolding should students need additional support.

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:

Presentation is thorough to address the topic efficiently and effectively.

## 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.

To answer each item, select the appropriate rating.

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.

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. 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:

Presentation is highly interactive and encourages exploration. Self assessment guides student progress and motivates independent learning.

**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:

Big ideas in earth science are organized for thorough teaching and begin with background knowledge requirements, address misconceptions, engage active learning and assure mastery with graded assessments.

**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:

Learning goals are especially well written and easily understood by student audience.

**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:

Active engagement with media and self-grading assessments encourage students discovery.

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:

Language access, highlighting and other tools provide for access for a majority of learning styles and challenges.

**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:

Kinesthetic activities are limited though sensory exploration is likely given enticing images and topic content.

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:

Nature of Science is especially well addressed and the unit provides insight to the depth of development for the entire curriculum offering.

**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:

5E strategy as well as graphic organizers and writing prompts are but a few of the varied techniques employed to encourage content mastery.

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:

Outcomes expectation are well defined and likely given the varied but consistent pedagogy.

**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:

Lessons open with engagement of high interest and explicit instruction highlighted with rigorous and relevant content.

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:

Self assessment is offered to students and reported to the instructor. Additional writing elements are teacher assessed to round out the assurances of appropriate achievement.

**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:

Few elements may need additional scaffolding through adaptive technologies and access to media.

**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:

Mathematic concepts are included as necessary e.g. measurement of scale, temperature

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

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.

To answer each item, select the appropriate rating.

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.

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.

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.E.6.1:** Describe and give examples of ways in which Earth's surface is built up and torn down by physical and chemical weathering, erosion, and deposition.

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

Justification:

Earths external processes and geological agents are thoroughly addressed.

2. **SC.6.E.6.2:** Recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes and relate these landforms as they apply to Florida.

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

Justification:

Earth surfaces including costal landforms are evident but not directly related to Florida.

3. **SC.6.E.7.1:** Differentiate among radiation, conduction, and convection, the three mechanisms by which heat is transferred through Earth's system.

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

Justification:

Forms of heat and transfer are explicitly taught along with common applications.

4. **SC.6.E.7.2:** Investigate and apply how the cycling of water between the atmosphere and hydrosphere has an effect on weather patterns and climate.

**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:

Standard is very thoroughly addressed and assessed in "Planet Water".

5. **SC.6.E.7.3:** Describe how global patterns such as the jet stream and ocean currents influence local weather in measurable terms such as temperature, air pressure, wind direction and speed, and humidity and precipitation.

**Remarks/Examples:**

Florida Standards Connections: MAFS.K12.MP.5: Use appropriate tools strategically MAFS.K12.MP.6: Attend to precision and, 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:

The global nature of the planet and its effect on local weather are highlighted methodically and completely in the unit on weather and atmosphere.

6. **SC.6.E.7.4:** Differentiate and show interactions among the geosphere, hydrosphere, cryosphere, atmosphere, and biosphere.

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

Justification:

Most of the Earth's spheres are well addressed.

7. **SC.6.E.7.5:** Explain how energy provided by the sun influences global patterns of atmospheric movement and the temperature differences between air, water, and land.

**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:

The effect of energy and resulting movement of fluids are taught using engaging video's of demonstrations the beg student inquiry and analysis.

8. **SC.6.E.7.6:** Differentiate between weather and climate.

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

Justification:

Each element is well defined and clarified in text, demo and interactions.

9. **SC.6.E.7.7:** Investigate how natural disasters have affected human life in Florida.

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

Justification:

Florida perspective overlooked.

10. **SC.6.E.7.8:** Describe ways human beings protect themselves from hazardous weather and sun exposure.

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

Justification:

Atmospheric condition's that both support and endanger life on Earth are systematically addressed in the lesson on atmosphere and life.

11. **SC.6.E.7.9:** Describe how the composition and structure of the atmosphere protects life and insulates the planet.

**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:

Temperature regulation, protection against radiation as well as the physical and chemical elements of the atmosphere responsible for both are established.

12. **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:

Example: Air circulation is investigated with a demonstration where students are guided to make observations, draw conclusions and support claims.

13. **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 nature of science and implications for investigations are addressed throughout as well as an introductory chapter.

14. **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:

The types of scientific study are presented in units and the "What is Science?" component.

15. **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:

Discussed in the nature of science lesson and thoroughly offering in "Explore", "Elaborate" and in "Activities" that are part of each unit.

16. **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:

Discussed in the nature of science lesson and thoroughly offering in "Explore", "Elaborate" and in "Activities" that are part of each unit.

17. **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:

Well addresses in the Nature of Science component that also make clear distinctions between what is and what is not science.

18. **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:

Discussed throughout and especially evident when historic perspective of scientific knowledge is addressed.

19. **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:

Historic and current contributions are presented though not as much diversity as might be offered.



20. **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:

Nature of Science is very completely addresses to include development of scientific theories and opposed to conventional theories..

21. **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:

Well explained and reinforced throughout.

22. **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:

Numerous ensamples of these laws are presented in a NOS activity and the nature of scientific law is elaborated upon.

23. **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:

Changes in models over time such as the iguanodon are also addressed as representation of the durability of scientific knowledge.

24. **SC.7.E.6.1:** Describe the layers of the solid Earth, including the lithosphere, the hot convecting mantle, and the dense metallic liquid and solid cores.

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

Justification:

Defined and demonstrated in text, activities, models and video presentations.

25. **SC.7.E.6.2:** Identify the patterns within the rock cycle and relate them to surface events (weathering and erosion) and sub-surface events (plate tectonics and mountain building).

**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:

Earths internal processes are compared to and identified as agents of Earth's external and ever changing surface.

26. **SC.7.E.6.3:** Identify current methods for measuring the age of Earth and its parts, including the law of superposition and radioactive dating.

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

Justification:

Unit on History of the Earth for upper grade levels needed to be added to include this standard.

27. **SC.7.E.6.4:** Explain and give examples of how physical evidence supports scientific theories that Earth has evolved over geologic time due to natural processes.

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

Justification:

Unit on History of the Earth for upper grade levels needed to be added to include this standard.

28. **SC.7.E.6.5:** Explore the scientific theory of plate tectonics by describing how the movement of Earth's crustal plates causes both slow and rapid changes in Earth's surface, including volcanic eruptions, earthquakes, and mountain building.

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

Justification:

Numerous and varied animations simulate the diversity of movement that shaped Earth's surface both slowly and rapidly.

29. **SC.7.E.6.6:** Identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.

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

Justification:

Homan impact and the necessity for stewardship of the planet and specifically soil conservation are exceptionally well represented.

30. **SC.7.E.6.7:** Recognize that heat flow and movement of material within Earth causes earthquakes and volcanic eruptions, and creates mountains and ocean basins.

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

Justification:

Earth's internal forces are dynamically offered in engaging videos and demonstrations.

31. **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:

Students participate in investigations that allow for further exploration of each topic in the collection.

32. **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:

Students collect and compare data within activities and analyze results.

33. **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:

Experimentation and investigation are compared and contrasted directly and throughout activities.

34. **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:

Nature of science is directly taught.

35. **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:

Elements of science are identified as the field in presented in context.

36. **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:

Scientific explanations based in evidence is taught as a concept and encouraged as a practice of investigation and experimentation.

37. **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:

Historic perspective and adaptations reinforce the dynamic of scientific discussion.

38. **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:

Historic models of the universe are presented with authors of each and the developing evidence that have led to current understandings.

39. **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:

Numerous ensamples of theories and laws are presented in a NOS activities.

40. **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:

Models and their use and limitations are addressed in NOS unit.

41. **SC.8.E.5.1:** Recognize that there are enormous distances between objects in space and apply our knowledge of light and space travel to understand this distance.

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

Justification:

Scale is taught using conventionally understood distances and applied to elements in space and the distance traveled by light.

42. **SC.8.E.5.2:** Recognize that the universe contains many billions of galaxies and that each galaxy contains many billions of stars.

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

Justification:

Components and composition of elements of our galaxy are presented through video and demonstration of accepted models and visual data collected from space exploration.

43. **SC.8.E.5.3:** Distinguish the hierarchical relationships between planets and other astronomical bodies relative to solar system, galaxy, and universe, including distance, size, and composition.

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

Justification:

The organization of celestial bodies is outlined in graphic organizers and concept maps that make the abstract more meaningful.

44. **SC.8.E.5.4:** Explore the Law of Universal Gravitation by explaining the role that gravity plays in the formation of planets, stars, and solar systems and in determining their motions.

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

Justification:

While the gravitation of the sun is identified as the shaping force the "Law of Universal Gravitation" so named was not evident to this reviewer.

45. **SC.8.E.5.5:** Describe and classify specific physical properties of stars: apparent magnitude (brightness), temperature (color), size, and luminosity (absolute brightness).

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

Justification:

The creation of stars and their scale and contributing to the understanding of the hierarchy of the universe are present, however the nature of individual stars is not readily present.

46. **SC.8.E.5.6:** Create models of solar properties including: rotation, structure of the Sun, convection, sunspots, solar flares, and prominences.

**Remarks/Examples:**

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

Students create a small scale model of our solar system using familiar architecture to illustrate distances.

47. **SC.8.E.5.7:** Compare and contrast the properties of objects in the Solar System including the Sun, planets, and moons to those of Earth, such as gravitational force, distance from the Sun, speed, movement, temperature, and atmospheric conditions.

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

Justification:

Each element size, distance, composition, orbital speed, temperature and atmosphere are addressed individually for planetary bodies and then contrasted with one another to illustrate variations.

48. **SC.8.E.5.8:** Compare various historical models of the Solar System, including geocentric and heliocentric.

**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:

These and other historical representations of the universe are offered.

49. **SC.8.E.5.9:** Explain the impact of objects in space on each other including:

1. the Sun on the Earth including seasons and gravitational attraction

2. the Moon on the Earth, including phases, tides, and eclipses, and the relative position of each body.

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

Justification:

The interactive qualities of gravitation, position, and illumination between celestial objects is very completely illustrated, explored and assessed.

50. **SC.8.E.5.10:** Assess how technology is essential to science for such purposes as access to outer space and other remote locations, sample collection, measurement, data collection and storage, computation, and communication of information.

**Remarks/Examples:**

Florida Standards Connections: MAFS.K12.MP.5: Use appropriate tools strategically; and, MAFS.K12.MP.6: Attend to precision.

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

Justification:

Historical and current space explorations programs and the nature of technological advances that have permitted such are well documents.

51. **SC.8.E.5.11:** Identify and compare characteristics of the electromagnetic spectrum such as wavelength, frequency, use, and hazards and recognize its application to an understanding of planetary images and satellite photographs.

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

Justification:

While images of the planet and satellite photography are incorporated the means to achieve them are not evident. The EM spectrum and hazards are discussed in atmospheric conditions.

52. **SC.8.E.5.12:** Summarize the effects of space exploration on the economy and culture of Florida.

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

Justification:

The local impact of the space program has been overlooked.

53. **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:

students engage in individual and group discoveries throughout each unit.

54. **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:

Replication is highlighted as an essential element of validity in science.

55. **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:

Nature of Science is taught in great detail.

56. **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:

The value of hypothesis and further study is presented.

57. **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:

Methods used in different fields has limited offering.

58. **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:

Scientific investigation as a means to collect empirical evidence is present throughout.

59. **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:

Exceptional well covered in introductory unit "What is Science?".

60. **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:

Exceptional well covered in introductory unit "What is Science?".

61. **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:

Students identify the pertinent elements of demonstration models to share evidence.

62. **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:

The durability of scientific theories is offered as relates to varied fields of scientific study.

63. **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:

Scientific evidence from investigations are encouraged to be used to support participation and advocacy for the greater good.

64. **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:

The interaction between societal organizations and science is limited.

65. **LAFS.6.SL.1.1:** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others' ideas and expressing their own clearly.

a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.

b. Follow rules for collegial discussions, set specific goals and deadlines, and define individual roles as needed.

c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.

d. Review the key ideas expressed and demonstrate understanding of multiple perspectives through reflection and paraphrasing.

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

Justification:

Group interaction could use regular and supplemental encouragement.

66. **LAFS.6.SL.1.2:** Interpret information presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how it contributes to a topic, text, or issue under study.

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

Justification:

Information is presented in diverse media and expected to be interpreted and communicated.

67. **LAFS.6.SL.1.3:** Delineate a speaker's argument and specific claims, distinguishing claims that are supported by reasons and evidence from claims that are not.



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

Justification:

The analysis of the author's craft is very limited.

68. **LAFS.6.SL.2.4:** Present claims and findings, sequencing ideas logically and using pertinent descriptions, facts, and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume, and clear pronunciation.

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

Justification:

Students are asked to present arguments based on evidence and logical reasoning.

69. **LAFS.6.SL.2.5:** Include multimedia components (e.g., graphics, images, music, sound) and visual displays in presentations to clarify information.

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

Justification:

The use of multimedia is engaging and sufficient to encourage interest and motivate participation..

70. **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:

Well demonstrated throughout.

71. **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:

Analysis of text as a strategy to evaluate information is lacking.

72. **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:

Scaffolding is presented as necessary to teach logical progression of understanding.

73. **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:

Expectation for contextual understanding is assessed.

74. **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:

Author's craft is not explicitly taught.

75. **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:

Author's craft is not explicitly taught.

76. **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:

Diagrams, floe charts, infographiocs, tables, and the like are used extensively to present information and are likewise expected to be analyzed as part of formal assessments.

77. **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:

Such elements are offered as contrast in the NOS component.

78. **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:

Analysis of source materials is not evident.

79. **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:

This is an expectation throughout the offering.

80. **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:

This is an expectation throughout the offering.

81. **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:

This is an expectation throughout the offering.

82. **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:

Writing format and revisions are not a central component of topics.

83. **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:

The use of technology to gather, synthesize, and communicate ideas is encouraged.

84. **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:

Independent research is encouraged

85. **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:

Combined data is presented by students to support hypothesis and encourage further investigation.

86. **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:  
Well supported.

87. **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:  
Specific detailed writing elements are not readily apparent.

88. **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:  
Students are encouraged to collect, analyze and present numerical data that have real work application such as "Showering Responsibly" where they determine water flow and timing to be good stewards of water resources.

89. **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:  
Students are frequently expected to complete charts, graphs and tables with appropriate numerical data.

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

- Reporting the number of observations.
- Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
- 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.
- 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:  
Students report, describe, analyze and compare numerical data for the purposes of communicating and thoughtful analysis.

91. **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:  
Scientific glossaries are available

92. **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:  
Translations are available for materials and assessments.

93. **HE.6.C.1.3:** Identify environmental factors that affect personal health.

**Remarks/Examples:**

Air and water quality, availability of sidewalks, contaminated food, and road hazards.

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

Justification:  
The quality of our natural resources and the wise stewardship is represented as key to maintaining the quality of human health.