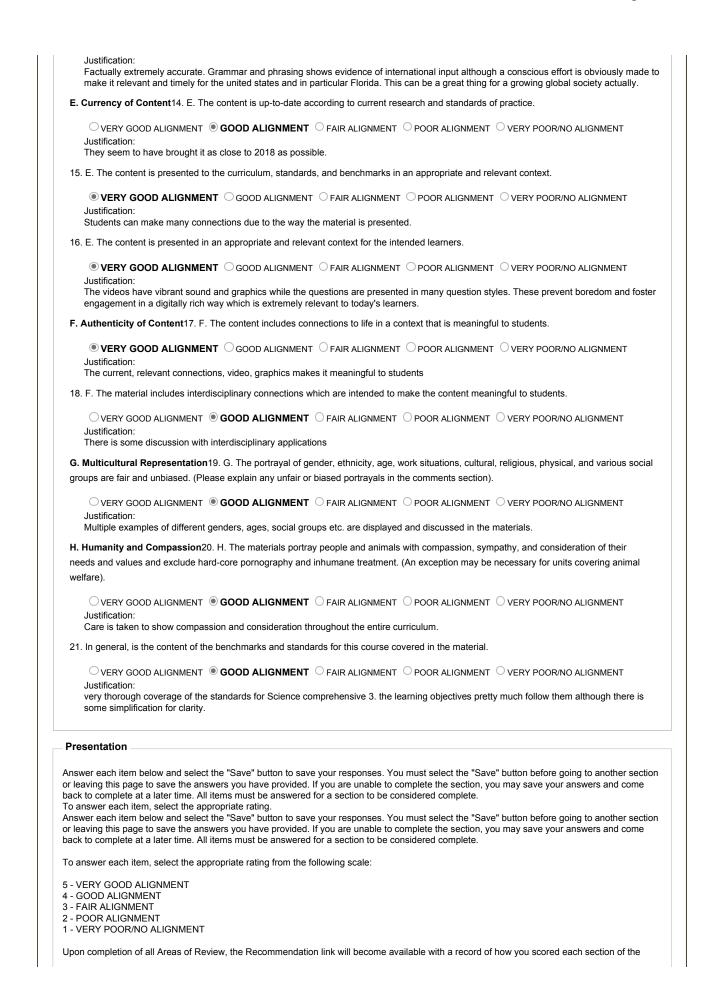
STRUCTIONAL MATERIALS ADMINISTRATOR	
BID 3333	
Recommendation	
/es	
Comments: Overall this is a strong program - possessing many rich practice sections. The beauty of the program lies in the freshness of the exemplars, the attention to detail to explain content using connections which address misconceptions and open the learner to consider thing at a deep level of understanding. The 5 E approach is fantastic and well covered. The weakness is that it is a digital platform which uses mostly online assessments. There could be more references to hands on labs that could round out this program quite nicely.	
Material for Review	
Course: M/J Comprehensive Science 3 (2002100)	
Title: Science Bits - M/J Comprehensive Science 3, Edition: 1st Copyright: 2017	
Author: International Science Teaching Foundation	
Grade Level: 6 - 8	
Content	
ack 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 sect 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 sack 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 - GOOD ALIGNMENT - FAIR ALIGNMENT - POOR ALIGNMENT	
- VERY POOR/NO ALIGNMENT	
Jpon completion of all Areas of Review, the Recommendation link will become available with a record of how you scored each section of the avaluation.	
 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 strength weaknesses, concerns, issues, and/or to provide examples supporting the rating. Your comments maybe used by publishers to help the improve their products 	
 Additional information regarding the Content, Presentation, and Learning requirements are located in the Science K-12 Specifications f the 2017-18 Florida State Adoption of Instructional Materials. 	or
Each set of materials submitted for adoption is evaluated based on each benchmark for that course and the Content, Presentation, and Learn ems included in this rubric.	ing
A. Alignment with curriculum1. A. The content aligns with the state's standards and benchmarks for subject, grade level and learning outcomes.	
○ VERY GOOD ALIGNMENT	se
 A. The content is written to the correct skill level of the standards and benchmarks in the course. 	
○ VERY GOOD ALIGNMENT	

Justification. Language used in the narrated videos may need to be explained to students Struggling readers and ESOL/ DHH in order for them to get the most out of them. The teacher may have to use chunking and context clues to aid student learning. 3. A. The materials are adaptable and useful for classroom instruction. Justification. The standards based activities are able to be used either in pdf paper form or on devises. Students can respond in writing, or online. Multiple ways for accessing info in different languages (English and Spanish). Took me a while to find it. Did see a read aloud pop up. But some things are not as intuitive to find. Took a little searching. B. Level of Treatment4. 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. Very thorough treatment to historic and current events which pertain to the content. 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: The activities start out with low complexity (general background knowledge) and build in complexity in the types of assessment - (explain and evaluate sections) throughout the interactive tutorials. 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: Clearly properly fitted to students at the 8th grade level taking into account the range of abilities, learning modalities/ styles as well as accessibility (IEP needs) 7. B. The level (complexity or difficulty) of the treatment of content matches the time period allowed for teaching. Justification: For the most part the timing allotted for lesson completion is close to actual time to complete the lesson. C. Expertise for Content Development8. C. The primary and secondary sources cited in the materials reflect expert information for the subiect. ○ VERY GOOD ALIGNMENT ◎ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification. Sources are all excellent and current. One or 2 links did not work but not sure if this was due to the fact that this is a trial login and some functionality will not work 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: Definitely do give added depth and aid connections for students. D. Accuracy of Content10. D. The content is presented accurately. (Material should be devoid of typographical or visual errors). Justification. Did not see any. As stated elsewhere the phrasing shows some evidence of international contribution but it is not obvious. (Rather subtle) 11. D. The content of the material is presented objectively. (Material should be free of bias and contradictions and is noninflammatory in nature). ${old O}$ VERY GOOD ALIGNMENT ${old O}$ good alignment ${old O}$ fair alignment ${old O}$ poor alignment ${old O}$ very poor/no alignment Justification: No bias seen - rather very sensitive to balance and inclusion. 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. Discusses the theories, laws, concepts needed for mastery at this grade level. Since it is all computer based, the weakness is in guidance for actual in class hands on activities to reinforce the simulations and develop fluency. 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



evaluation.

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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:

Concepts are assessed throughout the instruction sequence using DOK Scaffolding.

B. Alignment of Instructional Components2. 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:

Instructional sequence builds toward understanding overarching concepts in a logical and clear manner

C. Organization of Instructional Materials3. 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:

There is extremely logical and consistent organization of content which is also clearly laid out in the table of contents

D. Readability of Instructional Materials4. 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 language and graphics and audio visual supports are appropriate to grade level, clear to understand and match interest and rigor levels which appeal to both students and educators

E. Pacing of Content5. 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:

Pacing is just right

Accessibility6. 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:

All of the mentioned are there but not all intuitive to find

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:

Overall all criterion are met.

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

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A. Motivational Strategies1. A. Instructional materials include features to maintain learner motivation.

Format is very repetitive so students know what to expect but varies in question type and DOK level as well as interesting music and visuals which maintains learner engagement and motivation

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:

Learning objectives clearly restate the big ideas, themes and concepts students need to know in user friendly language

C. Explicit Instruction3. C. The materials contain clear statements of information and outcomes.

● VERY GOOD ALIGNMENT ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification:

This is well done in the objectives and student introductions to each section

D. Guidance and Support4. D. The materials provide guidance and support to help students safely and successfully become more independent learners and thinkers.

Students are given tools to answer questions in material presented before assessments, the visuals, the videos. This prompts critical thinking which will move them towards independence. Teachers may need to encourage students not used to this format to take risks and engage with material in order to complete work.

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:

This was not clearly and consistently seen in materials.

E. Active Participation of Students6. 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:

The material is interactive so it facilitates both physical and mental activity

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 Strategies8. F. Instructional materials include the strategies known to be successful for teaching the learning outcomes targeted in the curriculum requirements.

Several strategies are used but again the sequences are repetitive. perhaps some suggested activities with choice could be suggested at key junctures so teachers can differentiate this for students in the classroom with more facility.

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: This is clear.

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:

The mini- assessments and final chapter assessment clearly does correlate.

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:

If used properly the assessment should be effective to assess learner acquisition of targeted outcomes. Without actually observing this in action in a classroom setting I don't feel one can get the full picture of efficacy in real time.

Universal Design for Learning12. This submission incorporates strategies, materials, activities, etc., that consider the needs of all students.

Evidence is shown of consideration of the needs of all students

Mathematical Practice13. 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:

Several problems utilize incorporation of mathematical practices - as needed to understand and navigate through relevant content. It is also addressed in content passages and references.

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:

In general the submission does satisfy learning requirements.

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.

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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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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 codefinitions 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.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: examples and content address the standard

2. 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:

content addresses the standard

3. 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:

a better job could be done in some of the examples but adequate coverage noted

4. 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: Fully addressed

5. **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:

Fully addressed

6. 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:

These are adequately addressed

7. 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:

An excellent presentation and discussion of the standard

8. 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:

9. 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:

Excellent content and practice examples for this standard - graphics etc.

10. 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:

Addresses the standard

11. 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. ullet VERY GOOD ALIGNMENT \bigcirc Good Alignment \bigcirc Fair Alignment \bigcirc Poor Alignment \bigcirc Very Poor/No Alignment Justification: Excellent coverage of the standard 12. SC.8.E.5.12: Summarize the effects of space exploration on the economy and culture of Florida. Justification: adequate 13. 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. interdisciplinary approach is thorough but this could be confusing to some struggling students. would be better if taken in smaller bites. 14. SC.8.L.18.2: Describe and investigate how cellular respiration breaks down food to provide energy and releases carbon dioxide. Justification. interdisciplinary approach is excellent for advanced and gifted students. Smaller bites would help struggling learners 15. 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: fully addresses the standard 16. 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. Fully addresses the standard 17. 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: Covered throughout the curriculum and in nature of science section 18. SC.8.N.1.2: Design and conduct a study using repeated trials and replication. Justification. covered in many practice examples and throughout curriculum 19. 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: adequately covered in content 20. 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:

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

Justification.

22. 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.

23. 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).

covered in content and practice

24. 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:

Clearly covered by examples, inquiry and practice sections of materials

25. 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:

fully addressed throughout content

26. 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:

explained in several contexts as well as in the nature of science section

27. 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:

covered in content throughout the materials

28. 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:

covered in several contexts throughout the materials

29. SC.8.P.8.1: Explore the scientific theory of atoms (also known as atomic theory) by using models to explain the motion of particles in solids, liquids, and gases.

Remarks/Examples:

Recognize that matter is composed of discrete units called atoms and atoms are composed of sub-atomic particles called protons, neutrons, and electrons. Solid is the state in which intermolecular attractions keep the molecules in fixed spatial relationships. Liquid is the state in which intermolecular attractions keep molecules in fixed relationships. Gas is the state in which molecules are comparatively separated and intermolecular attractions have relatively little effect on their respective motions.

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

● VERY GOOD ALIGNMENT ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification:

Excellent discussion and practice sections in the materials

30. SC.8.P.8.2: Differentiate between weight and mass recognizing that weight is the amount of gravitational pull on an object and is distinct from, though proportional to, mass.

• VERY GOOD ALIGNMENT O GOOD ALIGNMENT O FAIR ALIGNMENT O POOR ALIGNMENT O VERY POOR/NO ALIGNMENT Justification: Excellent coverage of this standard in the materials

31. SC.8.P.8.3: Explore and describe the densities of various materials through measurement of their masses and volumes.

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:

Thorough coverage in this material

32. SC.8.P.8.4: Classify and compare substances on the basis of characteristic physical properties that can be demonstrated or measured; for example, density, thermal or electrical conductivity, solubility, magnetic properties, melting and boiling points, and know that these properties are independent of the amount of the sample.

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:

Multiple examples and detailed discussion in the materials

33. SC.8.P.8.5: Recognize that there are a finite number of elements and that their atoms combine in a multitude of ways to produce compounds that make up all of the living and nonliving things that we encounter.

Remarks/Examples:

Demonstrate with atomic models how atoms can combine in many ways. Explain why there are many, but limited, combinations. Use models to demonstrate the conservation of mass in modeled chemical reactions.

Decent coverage of this standard

34. SC.8.P.8.6: Recognize that elements are grouped in the periodic table according to similarities of their properties.

● VERY GOOD ALIGNMENT ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification:

Excellent coverage of this standard

35. SC.8.P.8.7: Explore the scientific theory of atoms (also known as atomic theory) by recognizing that atoms are the smallest unit of an element and are composed of sub-atomic particles (electrons surrounding a nucleus containing protons and neutrons).

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:

Excellent coverage of this standard

36. SC.8.P.8.8: Identify basic examples of and compare and classify the properties of compounds, including acids, bases, and salts.

● VERY GOOD ALIGNMENT ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification:

Thorough and detailed and original (fresh approach) of the content in this standard

37. SC.8.P.8.9: Distinguish among mixtures (including solutions) and pure substances.

Remarks/Examples:

Pure substances include elements and compounds. Mixtures are classified as heterogeneous (mixtures) or homogeneous (solutions). Methods for separating mixtures include: distillation, chromatography, reverse osmosis, diffusion through semi-permeable membranes.

● VERY GOOD ALIGNMENT ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification:

Excellent coverage of this standard and addresses this in introductory materials which is not often done in other materials

38. SC.8.P.9.1: Explore the Law of Conservation of Mass by demonstrating and concluding that mass is conserved when substances undergo physical and chemical changes. ● VERY GOOD ALIGNMENT ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification: Clearly and well done in the unit for this standard 39. SC.8.P.9.2: Differentiate between physical changes and chemical changes. \odot VERY GOOD ALIGNMENT \bigcirc Good alignment \bigcirc fair alignment \bigcirc poor alignment \bigcirc very poor/no alignment Justification: Fully covered 40. SC.8.P.9.3: Investigate and describe how temperature influences chemical changes. ● VERY GOOD ALIGNMENT ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification. Fully covered 41. 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. Students have opportunity to do this in practice questions, more outside prompts could be used to develop this further 42. 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. Justification: Students have some opportunity to do this in practice activities for text used for content. More opportunities could be given for use of external texts 43. 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: Fully covered in this material 44. 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. Fully covered in visual aids, videos and text in content and practice materials. 45. 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: Emphasis more so in seeing relationships embedded in tasks as opposed to analyzing text for content 46. LAFS.68.RST.2.6: Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text. Justification. The portion of the standard for procedure or experiment is covered. Text based analysis of scientific passages and author's purpose (text dependent questions) is not covered as well 47. 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: Fully covered 48. 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:

49. 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:

As applies to critical thinking for science this is well covered.

50. LAFS.68.RST.4.10: By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.

Adequately covered in text

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

a. 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.

b. Support claim(s) with logical reasoning and relevant, accurate data and evidence that demonstrate an understanding of the topic or text, using credible sources.

c. Use words, phrases, and clauses to create cohesion and clarify the relationships among claim(s), counterclaims, reasons, and evidence.

d. Establish and maintain a formal style.

e. 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:

practice materials address this standard

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

a. 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.

b. Develop the topic with relevant, well-chosen facts, definitions, concrete details, quotations, or other information and examples.
 c. Use appropriate and varied transitions to create cohesion and clarify the relationships among ideas and concepts.

. Ose appropriate and varied transitions to create corresion and clarity the relationships among ideas and conc

d. Use precise language and domain-specific vocabulary to inform about or explain the topic.

e. Establish and maintain a formal style and objective tone.

f. Provide a concluding statement or section that follows from and supports the information or explanation presented.

Covered in materials

53. 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: Fully addressed with use of the materials

54. 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:

Difficult to address this standard with the mode of evaluation being used. Observation in person this could be better evaluated

55. 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:

Used throughout materials when student answers are entered for the teacher to review

56. 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:

Fully covered in this interactive approach for these materials

57. 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:

Covered to some degree in this standard.

58. 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:

Mostly evidence from materials supplied to answer practice questions embedded

59. 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:

Fully covered in the interactive approach of the materials

60. LAFS.8.SL.1.1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and expressing their own clearly.

a. Come to discussions prepared, having read or researched material under study; 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 and decision-making, track progress toward specific goals and deadlines, and define individual roles as needed.

c. Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.

d. Acknowledge new information expressed by others, and, when warranted, qualify or justify their own views in light of the evidence presented.

○ VERY GOOD ALIGNMENT ● **GOOD ALIGNMENT** ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification: Addressed by the material

61. LAFS.8.SL.1.2: Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.

○ VERY GOOD ALIGNMENT ● **GOOD ALIGNMENT** ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification: Addressed by this material

62. LAFS.8.SL.1.3: Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.

○ VERY GOOD ALIGNMENT ○ GOOD ALIGNMENT ● FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification:

Not addressed to a large degree by these materials

63. LAFS.8.SL.2.4: Present claims and findings, emphasizing salient points in a focused, coherent manner with relevant evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate volume, and clear pronunciation.

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

This standard does not really address in person presentations. The interaction is mostly digital - even if some in class projects may be assigned it is difficult to evaluate.

64. LAFS.8.SL.2.5: Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.

● VERY GOOD ALIGNMENT ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification:

Fully addressed by the materials

65. MAFS.8.F.2.5: Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

○ VERY GOOD ALIGNMENT ● **GOOD ALIGNMENT** ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT Justification: Addressed by the materials quite nicely 66. MAFS.8.G.3.9: Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

Remarks/Examples:

Fluency Expectations or Examples of Culminating Standards

When students learn to solve problems involving volumes of cones, cylinders, and spheres — together with their previous grade 7 work in angle measure, area, surface area and volume (7.G.2.4–2.6) — they will have acquired a well-developed set of geometric measurement skills. These skills, along with proportional reasoning (7.RP) and multistep numerical problem solving (7.EE.2.3), can be combined and used in flexible ways as part of modeling during high school — not to mention after high school for college and careers.

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

Decent coverage of concepts that should be acquired in order to perform tasks at this level. A variety of tasks and problems force students to demonstrate flexibility however struggling students might need scaffolding to answer problems.

67. 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:

Decent coverage in these materials for this standard

68. 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: Communication is limited to assignments in the materials