Bid 3357

INSTRUCTIONAL MATERIALS ADMINISTRATOR

Recommendation

Yes

Comments: The hands on activities and STEM activities are excellent. Students are allowed to be creative and required to graph the data found and interpret. The misconceptions throughout the text are excellent teaching points. The videos and interactive explorations are excellent as well.

Material for Review

Course: Science - Grade Four (5020050)
Title: Discovery Education Science Techbook (Florida) - Grade 4 , Edition: 1
Copyright: 2017
Author: Amy Gensemer, David Marsland, Nikki Snyder
Grade Level: K - 5

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 curriculum1. 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:
The content aligns with the state's standards and benchmarks for subject, grade level, and learning outcomes.

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

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

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

Justification:
The materials are extremely adaptable and useful for classroom instruction.

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:
The materials provide sufficient and excellent details for students to understand the significance of topics and events.

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 level of complexity of the content matches the standards.

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:
The level of complexity of content matches the student abilities and grade level.

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

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

Justification:
The level of complexity of the content matches the time period allowed for teaching.

C. Expertise for Content Development8. 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:
The primary and secondary sources cited in the materials reflect expert information for the subject.

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

D. Accuracy of Content10. 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:
The content is presented accurately without typographical or visual errors.

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

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

Justification:
The content of the material is presented objectively without bias and contradictions and is noninflammatory in nature.

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:
The content of the material is representative of the discipline.

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:
The content of the material is factual accurate.

E. Currency of Content14. 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:
The content is up to date according to current research and standards of practice.

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

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

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
The content is presented in an appropriate and relevant context for the intended learners.

F. Authenticity of Content17. F. The content includes connections to life in a context that is meaningful to students.

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
The content includes connection to life in a context that is meaningful to students.

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

G. Multicultural Representation19. 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:
There are no unfair or biased portrayals.

H. Humanity and Compassion20. 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:
The materials portray people and animals with compassion, sympathy, and consideration of their needs and values and excludes hard-core pornography and inhumane treatment.

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:
The content of the benchmarks and standards for this course are covered in the material.

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:
The comprehensiveness of the student resources address the targeted learning outcomes without requiring the teacher to prepare additional teaching materials for the course.

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:
All components of the major tool align with the curriculum and each other.

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:
The materials are consistent and logical organization of the content for the subject area.

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

(●) **VERY GOOD ALIGNMENT** ( ) GOOD ALIGNMENT ( ) FAIR ALIGNMENT ( ) POOR ALIGNMENT ( ) VERY POOR/NO ALIGNMENT

Justification:
The 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.

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:
The amount of content presented at one time and the pace at which it is presented is a size/rate that allows students to perceive and understand.

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:
The material contains presentation, navigation, study tool and assistive supports that aid students, including those with disabilities, to access and interact with the material.

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:
The submission entirely satisfies presentation requirements.

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

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

Justification:
Instructional materials include features to maintain learner 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:
Instructional materials thoroughly teach a few important ideas, concepts, or themes.

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:
The materials contain clear statements of information and outcomes.

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

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

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 materials engage the physical and mental activity of students during the learning process.

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

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

Justification:
The materials include organized activities that are logical extensions of content, goals, and objectives.

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

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:
The instructional strategies incorporated in the materials are effective in teaching the target outcomes.

G. Targeted Assessment Strategies10. 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 materials correlate assessment strategies to the designed learning outcomes.

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

Universal Design for Learning12. 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:
This submission incorporates strategies, materials, activities that consider 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:
The application of Mathematical Practices are applicable.

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

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

Justification:
The submission satisfies the 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.
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
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.4.E.5.1:** Observe that the patterns of stars in the sky stay the same although they appear to shift across the sky nightly, and different stars can be seen in different seasons.

Remarks/Examples:

Florida Standards Connections: MAFS.K12.MP.2: Reason abstractly and quantitatively.

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

Justification:
Great hands on activity for observing the constellations and patterns in the sky through the seasons. The virtual cycle of day and night allows students to see the movement of the sun, planets, and stars interactively. This is a concept that is not easy to observe by looking at the sky, this exploration activity is excellent.

2. **SC.4.E.5.2:** Describe the changes in the observable shape of the moon over the course of about a month.

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

Justification:
The text, diagrams, and misconceptions are excellent for understanding the changes in the observable shape of the moon. The hands on Sun, Earth, Moon activity is excellent for students to create a model and understand the phases of the moon. The Exploration model is an excellent interactive activity for understanding the phases of the moon as the Earth rotates.

3. **SC.4.E.5.3:** Recognize that Earth revolves around the Sun in a year and rotates on its axis in a 24-hour day.

Remarks/Examples:

Florida Standards Connections: MAFS.K12.MP.2: Reason abstractly and quantitatively.

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

Justification:
Using objects to represent the Sun and Earth in the hands on activity for rotate vs revolve, allows a hands on understanding of the two concepts. The Exploration of day and night with the two clocks allows students to understand Earth revolving around the sun and the rotation on its axis. This models allows students to make connection between the time in two different places during the Earth's rotation on its axis. The Explore text, diagrams, and images cover the standard wonderfully.

4. **SC.4.E.5.4:** Relate that the rotation of Earth (day and night) and apparent movements of the Sun, Moon, and stars are connected.

Remarks/Examples:

Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.4.E.5.1, SC.4.E.5.2, and SC.4.E.5.3.

Florida Standards Connections: MAFS.K12.MP.2: Reason abstractly and quantitatively.

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

Justification:
Both the Exploration of day and night virtual activity and the hands on rotate vs revolve, lead to an understanding of the relation of Earth's rotation and movements of the Sun, Moon, and Stars through an interactive visual. The video on Polaris is great for explaining the North Star. The Martian Time questions is excellent to assess understanding of time on Mars or to have a class discussion about time.

5. **SC.4.E.5.5:** Investigate and report the effects of space research and exploration on the economy and culture of Florida.

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

Justification:
The video on robotic engineering is excellent for understanding the process of using a robot to investigate and research space. The video on the new spacesuits and boots also add to the understanding of what space exploration entails. The connection between space exploration and Florida's economy/culture was not apparent in the text.

6. **SC.4.E.6.1:** Identify the three categories of rocks: igneous, (formed from molten rock); sedimentary (pieces of other rocks and fossilized organisms); and metamorphic (formed from heat and pressure).

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

Justification:
The Exploration of the three types of text is an excellent interactive text for understanding the differences between the different rocks and also understanding and seeing how they are formed.

7. **SC.4.E.6.2:** Identify the physical properties of common earth-forming minerals, including hardness, color, luster, cleavage, and streak color, and recognize the role of minerals in the formation of rocks.

Remarks/Examples:

Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.4.E.6.1.

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

Justification:
The Minerals Exploration is a great interactive way to understand the properties of minerals. The minerals reading passage text is excellent at explaining the different types of rocks. The Stem activity on fluorescent minerals is a great activity for identifying physical properties of this mineral and understanding why it is different than the common earth forming minerals.

8. **SC.4.E.6.3:** Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable.

Remarks/Examples:

Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.4.E.6.1.

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

Justification:
The hands on activity is an excellent tactile way to introduce this unit. Students will have to find random objects and then think about what the object is made of, where it came from and decide whether it is renewable or nonrenewable. The exploration of renewable resources is a great interactive activity where students can test themselves to see if they can identify the nonrenewable resources. The stem activity and text on solar energy is excellent for students to understand the importance of using solar energy and going green.

9. **SC.4.E.6.4:** Describe the basic differences between physical weathering (breaking down of rock by wind, water, ice, temperature change, and plants) and erosion (movement of rock by gravity, wind, water, and ice).

Remarks/Examples:

Annually assessed on Grade 5 Science FCAT 2.0.

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

Justification:
The Erosion and Deposition exploration activity allows students to see a visual of the differences of erosion by wind vs water and deposition by water vs wind. The forces that shape the earth exploration activity allows students to match the type of physical weathering to actual photos where the weathering has shaped the area. The photos, videos, diagrams, and text do an excellent job of describing the differences between erosion and deposition.

10. **SC.4.E.6.5:** Investigate how technology and tools help to extend the ability of humans to observe very small things and very large things.

Remarks/Examples:

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

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

Justification:
The Stem in Action on Technology and Moon Phases does and excellent job of explaining the need for telescopes to observe very small distant things. In the space travel text students gain an understanding of the distance and time involved in traveling to space.

11. **SC.4.E.6.6:** Identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).

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

Justification:
Students are required to identify natural resources in the area and identify how they are collected and converted. Perhaps some text information can also be provided explaining Florida resources.

12. **SC.4.L.16.1:** Identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.

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

Justification:
The getting to know plants, fundamental activity, is an interactive visual that shows how the birds disperse the seeds and fertilization and germination occur. The reading passage is excellent at explaining pollen and pollination.

13. **SC.4.L.16.2:** Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment.

Remarks/Examples:

Integrate HE.4.C.1.6. Identify the human body parts and organs that work together to form healthy body systems.

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

Justification:
The exploration of similarities of parents and offspring allows students to understand the traits that are inherited in plants, humans, and animals. The text explains thoroughly between inherited and acquired traits. The classification activity where students must identify whether trait is acquired or inherited is excellent for checking understanding.

14. **SC.4.L.16.3:** Recognize that animal behaviors may be shaped by heredity and learning.

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

Justification:
The Stem in Action text explains the differences between inherited and learned animal behaviors. The text uses examples of horses and cows and the differences in the behaviors that are natural instincts vs those that aren't. The learning exploration takes living things and analyzes their behaviors, like a plant growing towards the sun and explores whether it is inherited or learned.

15. **SC.4.L.16.4:** Compare and contrast the major stages in the life cycles of Florida plants and animals, such as those that undergo incomplete and complete metamorphosis, and flowering and nonflowering seed-bearing plants.

Remarks/Examples:

Annually assessed on Grade 5 Science FCAT 2.0.

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

Justification:
The hands on activity allows students to make a model of a plant life cycle and then make predictions. The Animals Fundamental allows students to select the different environments and identify the animals that live there. The animal life cycles explore text has excellent videos and photographs showing the metamorphosis and changes that different animals undergo. The reading passage of life cycles of organisms uses the crocodile, which is a Florida animal, to explain the changes it undergoes.

16. **SC.4.L.17.1:** Compare the seasonal changes in Florida plants and animals to those in other regions of the country.

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

Justification:
The habitat characteristics provides a table with the different temperatures of different areas based on the season. The text goes on to explain how an alligator for example could not live in a desert. The activity requires students to do research to identify where the list of given animals could live based on temperature/seasons.

17. **SC.4.L.17.2:** Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them.

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

Justification:
The Food and Oxygen and Food and Energy texts do an excellent job of explaining and showing food chains and food webs and explaining that animals receive the nutrients they need through plant or animal consumption. The What's for Dinner exploration allows students to interact by placing the animals into the food chain.

18. **SC.4.L.17.3:** Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers.

Remarks/Examples:

Annually assessed on Grade 5 Science FCAT 2.0. Also assesses SC.3.L.17.2 and SC.4.L.17.2.

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

Justification:
The text explains the flow of energy from the Sun as it is transferred along the food chain. The food chain activity that requires students to drag and drop the words to show the correct flow of energy is excellent. The videos and photos are excellent at showing different ecosystems.

19. **SC.4.L.17.4:** Recognize ways plants and animals, including humans, can impact the environment.

Remarks/Examples:

Introduce the impacts of invasive species, such as Brazilian pepper, Cuban anole, Kudzu, Australian pine, non-native pets released into wild (Burmese python). Ocean pollution resulting from discharge of sewage, toxic chemicals, manufacturing wastes, fertilizers, soaps, detergents, runoff and insecticides population growth causes consumption of limited resources and land use expansion to accommodate for more people animal extinction (endangered and threatened species).

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

Justification:
The reading passage, "Stressed Out" explains the impact of non native species intruding in an area. The hands on activity is excellent to show how pollution in one area can affect other areas.

20. **SC.4.N.1.1:** Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations.

Remarks/Examples:

Florida Standards Connections: LAFS.4.RI.1.3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
Florida Standards Connections: MAFS.K12.MP.1: Make sense of problems and persevere in solving them and, MAFS.K12.MP.3: Construct viable arguments and critique the reasoning of others.

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

Justification:
The project how will the shadow change is excellent. Students use a digital lab to measure heights of shadows of objects during different months. Students will be able to make connection between shadow height and the seasons. The hands on stimuli and responses has students visit several centers where they will make predictions and then see what the response to the stimuli is. The project hazards at home encourages students to explore the effect of chemicals on household plants.

21. **SC.4.N.1.2:** Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups.

Remarks/Examples:

Florida Standards Connections: LAFS.4.SL.1.1. Engage effectively in a range of collaborative discussions with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.
Florida Standards Connections: MAFS.K12.MP.4: Model with mathematics and, MAFS.K12.MP.5: Use appropriate tools strategically.

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

Justification:
The activity for mass and weight requires students to use pan balances and spring scales and to also estimate before actually taking the weight and mass. The project with running speed allows students to work with each other to take down the time to run a distance and figure out the speed.

22. **SC.4.N.1.3:** Explain that science does not always follow a rigidly defined method ("the scientific method") but that science does involve the use of observations and empirical evidence.

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

Justification:
The example of the oil drillers is excellent for explaining that not all steps of the scientific method need to be followed rigidly. also the

example of Dr. Nadkarni climbing into the canopies to study life there is another example of a more complex scientific study that does not follow the scientific method rigidly.

23. **SC.4.N.1.4:** Attempt reasonable answers to scientific questions and cite evidence in support.

Remarks/Examples:

Florida Standards Connections: LAFS.4.W.3.8. Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources. LAFS.4.W.3.9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Florida Standards Connections: MAFS.K12.MP.1: Make sense of problems and persevere in solving them; and, MAFS.K12.MP.2: Reason abstractly and quantitatively.

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

Justification:
The stimuli and responses investigation requires students to attempt reasonable answers to scientific questions and to cite evidence to support. The electromagnet STEM project also requires students to complete and investigation and answer scientific questions with evidence.

24. **SC.4.N.1.5:** Compare the methods and results of investigations done by other classmates.

Remarks/Examples:

Florida Standards Connections: MAFS.K12.MP.6: Attend to precision.

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

Justification:
The sample analysis is an excellent activity for students to make observations on their own and then compare their observations and discuss with classmates. The Wow, Windmill project allows students to work together and discuss their ideas to engineer the best windmill possible.

25. **SC.4.N.1.6:** Keep records that describe observations made, carefully distinguishing actual observations from ideas and inferences about the observations.

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:
The hands on activity with magnetic poles requires students to describe observations and draw a diagram showing the observations. The researching properties of matter activity requires students to complete a table with the measured results.

26. **SC.4.N.1.7:** Recognize and explain that scientists base their explanations on evidence.

Remarks/Examples:

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

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

Justification:
The STEM project on carbon dioxide emissions shows students the importance of using data in scientific explanations. The technology and moon phase text also shows that the phases of the moon is based on evidence from observations.

27. **SC.4.N.1.8:** Recognize that science involves creativity in designing experiments.

Remarks/Examples:

Florida Standards Connections: MAFS.K12.MP.5: Use appropriate tools strategically.

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

Justification:
The text on finding new fuels shows the creativity and outside the box thinking required in designing experiments. The video clip questioning whether a car can run on french fry oil also shows this connection between creativity and experiments in science.

28. **SC.4.N.2.1:** Explain that science focuses solely on the natural world.

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

Justification:
The Stem in Action titled A Million Years From Now is excellent for students to understand the focus of science on the natural world. The explanation on stratigraphers and the study of rocks to understand history is excellent. The Stem in Action on minerals also does a through job at explaining that there are many minerals that still need to be discovered.

29. **SC.4.N.3.1:** Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model.

Remarks/Examples:

Florida Standards Connections: MAFS.K12.MP.2: Reason abstractly and quantitatively and, MAFS.K12.MP.4: Model with mathematics.

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

Justification:
The students are given the opportunity to create a model to represent rock formations. The acid rain hands on activity also gives them choice on how to create or manipulate a model.

30. **SC.4.P.8.1:** Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets.

Remarks/Examples:

Investigate the concept of weight versus mass of objects.

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:
The mass and weight exploration do an excellent job of comparing weight and mass. The hands on lab researching physical properties of matter also allows students to explore measuring mass of objects.

31. **SC.4.P.8.2:** Identify properties and common uses of water in each of its states.

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

Justification:
The hands on activity on heating ice allows students to see water changing from solid to liquid and then gas.

32. **SC.4.P.8.3:** Explore the Law of Conservation of Mass by demonstrating that the mass of a whole object is always the same as the sum of the masses of its parts.

Remarks/Examples:

Investigate the concept of weight versus mass of objects.

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:
The hands on activity, "What's the Sum?" requires students to use different tools to measure a flashlight. The students are required to combine the parts to equal the whole.

33. **SC.4.P.8.4:** Investigate and describe that magnets can attract magnetic materials and attract and repel other magnets.

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

Justification:
The digital exploration for the attraction is mutual is excellent for introducing and explaining the attraction of magnets. Students will work with magnets and explore when they attract and when they repel and then create a diagram explaining their observations.

34. **SC.4.P.9.1:** Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking.

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

Justification:
The materials for a purpose text explains very well how different materials change for different reasons. The hands on activity of creating a compost would also allow students to see how materials in a compost pile change over time.

35. **SC.4.P.10.1:** Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion.

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

Justification:
The text, "Getting to Know Different Forms of Energy," and also the exploration activity, "forms of energy" show different forms of energy that can be found in different places. It is useful that in the tech-book text it explains how different forms of energy are used every day.

36. **SC.4.P.10.2:** Investigate and describe that energy has the ability to cause motion or create change.

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

Justification:
The Exploration, "Energy in Systems" does an excellent job at explaining how energy flows in different systems. The techbook section on, "Energy in Systems" describes the transfer of energy thoroughly. The misconceptions and teacher notes are excellent.

37. **SC.4.P.10.3:** Investigate and explain that sound is produced by vibrating objects and that pitch depends on how fast or slow the object vibrates.

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

Justification:
The "Sound Waves" exploration activity is excellent for showing students how sound waves travel. The hands on activity allows students diagram and show the reflection changes on the wall that they observed.

38. **SC.4.P.10.4:** Describe how moving water and air are sources of energy and can be used to move things.

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

Justification:
Both the hands on activity and STEM activity are excellent. Making pinwheels to understand wind turbines is great. The STEM activity allows students to be creative in finding a way to build and test a machine that uses wind or water energy. Both are excellent.

39. **SC.4.P.11.1:** Recognize that heat flows from a hot object to a cold object and that heat flow may cause materials to change temperature.

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
The Heat Transfer text thoroughly explains how thermal energy moves between objects. The text explains radiation and infrared very well. The exploration activity is also excellent at demonstrating how heat transfers to objects. The collaborative project, "The Great Ice Melt" link will not open. https://app.discoveryeducation.com/player/view/assetGuid/a6cabf97-672a-452e-8ab0-bed19b1deb6b

40. **SC.4.P.11.2:** Identify common materials that conduct heat well or poorly.

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
The exploration activity, "Heat on the Move" is excellent for giving students a visual on which objects conduct heat better than others. The collaborative project, "The Great Ice Melt" link will not open. The text does a great job at explaining the movement of heat from object to object.

41. **SC.4.P.12.1:** Recognize that an object in motion always changes its position and may change its direction.

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
The exploration activity, "On the Move" allows students to change the objects in motion and observe the changes in position and motion. The reading passage, "Slow Motion" is excellent for making a connection with football and speed and motion.

42. **SC.4.P.12.2:** Investigate and describe that the speed of an object is determined by the distance it travels in a unit of time and that objects can move at different speeds.

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
The hands on activity is excellent since it gives students an opportunity to measure the speed and distance of a ball. They are able to investigate and describe their results while making the connection of time, speed, and distance. The exploration activity, "Describing Motion" gives students a visual in which they can compare fixed distance and fixed time. The "Comparing Speeds" reading passage is an excellent real world connection. Students are able to think about crawling, walking, and running to understand the relationship between distance, speed, and time.

43. **LAFS.4.RI.1.3:** Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
The reading passage on, "The Legend of the Gold Crown and Bathtub" is excellent for connecting a Greek myth to measuring the volume and weight of an object using water. The students will be able to recount the story explaining the crown sinking lower because of the weight.

44. **LAFS.4.RI.2.4:** Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
The articles, "The Great Wall of China," "The Extremophiles" and "Build Strength Fast" all provide domain specific and general academic vocabulary words. Students can use context to determine meaning. The three texts are relevant 4th grade topics.

45. **LAFS.4.RI.4.10:** By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
"Mission to Mars!" and "An Inuit Legend" are both informational texts with grade appropriate text complexity.

46. **LAFS.4.SL.1.1:** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, 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 and other information known about the topic to explore ideas under discussion.
b. Follow agreed-upon rules for discussions and carry out assigned roles.
c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.
d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

◉ **VERY GOOD ALIGNMENT** ○ GOOD ALIGNMENT ○ FAIR ALIGNMENT ○ POOR ALIGNMENT ○ VERY POOR/NO ALIGNMENT
Justification:
The misconceptions in many lessons are great talking points for teacher led discussions. The STEM projects will require group discussions and collaboration and will allow students to build on each others' ideas.

47. **LAFS.4.W.3.8:** Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.

(●) **VERY GOOD ALIGNMENT** ( ) GOOD ALIGNMENT ( ) FAIR ALIGNMENT ( ) POOR ALIGNMENT ( ) VERY POOR/NO ALIGNMENT
Justification:
The project, "Using Technology to Make Concrete" requires students to make a poster with an illustration and description. The Careers and Sound Waves question asks students to listen to dolphin audio and determine whether echolocation is being used. In the article, "The Puzzle of the Missing Salmon" students are required to use text evidence to explain whether the cows are polluting the stream.

48. **LAFS.4.W.3.9:** Draw evidence from literary or informational texts to support analysis, reflection, and research.
a. Apply grade 4 Reading standards to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions].”).
b. Apply grade 4 Reading standards to informational texts (e.g., “Explain how an author uses reasons and evidence to support particular points in a text”).

(●) **VERY GOOD ALIGNMENT** ( ) GOOD ALIGNMENT ( ) FAIR ALIGNMENT ( ) POOR ALIGNMENT ( ) VERY POOR/NO ALIGNMENT
Justification:
The informational article on mining requires students to use text support and evidence to show the negative effects and then some of the technology the mines provide. The students must use the author's reasons to support their answer. The salamander stem activity requires students to hypothesize based on the information how the salamander would react to stimuli.

49. **MAFS.4.MD.1.1:** Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...

( ) VERY GOOD ALIGNMENT (●) **GOOD ALIGNMENT** ( ) FAIR ALIGNMENT ( ) POOR ALIGNMENT ( ) VERY POOR/NO ALIGNMENT
Justification:
The hands on activity requires students to measure speed, distance, and time. I do not clearly see that this activity requires students to use different units within the same measurement. If it asked distance in m and then in feet for example it would cover the requirement.

50. **MAFS.4.MD.2.4:** Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.

( ) VERY GOOD ALIGNMENT (●) **GOOD ALIGNMENT** ( ) FAIR ALIGNMENT ( ) POOR ALIGNMENT ( ) VERY POOR/NO ALIGNMENT
Justification:
The students are given the option to create a graph with the data they collected. They also have the option to create a graphic organizer or table. Since they are given the option, not all students may create a line plot.

51. **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:
English language learners have plenty of opportunities to communicate, ideas and concepts.

52. **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:
The series will offer many opportunities for English language learners to communicate for social and instructional purposes.

53. **HE.4.C.1.5:** Identify the human body parts and organs that work together to form healthy body systems.

Remarks/Examples:
Muscular and skeletal systems, circulatory and respiratory systems, and endocrine and reproductive systems.

(●) **VERY GOOD ALIGNMENT** ( ) GOOD ALIGNMENT ( ) FAIR ALIGNMENT ( ) POOR ALIGNMENT ( ) VERY POOR/NO ALIGNMENT
Justification:
The exploration, "Muscles and Bones" allows students to identify the different body parts interactively. The exploration, "Circulation and Respiratory" also allow students to name the different part of the circulatory and respiratory system. The exploration, "Digestion and Excretion" also require students to identify and name the body systems.