**This advisory recommendation has not been approved by the Instructional Quality Commission or the State Board of Education.**

# REVIEW PANEL ADVISORY RECOMMENDATION 2018 SCIENCE ADOPTION OF INSTRUCTIONAL MATERIALS

| **Publisher** | **Program** | **Grade Level(s)** |
| --- | --- | --- |
| McGraw-Hill School Education LLC | California Inspire Science | 6–8d |

## Program Summary:

California Inspire Science includes: California Inspire Science includes: SE: Student Edition; TE: Teacher’s Edition; OL: Online for Earth and Space (grade 6), Life (grade 7), and Physical Science (grade 8).

## Recommendation:

California Inspire Science is recommended for adoption for 6–8d because the instructional materials include content as specified in the Next Generation Science Standards for California Public Schools (CA NGSS) and meet all the criteria in Category 1 with strengths in categories 2–5.

## Criteria Category 1: Alignment with the CA NGSS Three-Dimensional Learning

The program includes content as specified in the CA NGSS and includes a well-defined sequence of instructional opportunities that provides a path for all students to become proficient in all grade-level performance expectations.

**Citations:**

* Criterion #1: Grade 6, Unit 3, SE/TE, pp.82–88; Grade 7, Unit 2, SE/TE, pp.154–159; Grade 8, Unit 1, SE/TE, pp.112–116. There are numerous exemplars of the standards being fully covered in grades 6, 7, and 8.
* Criterion #9: Grade 6, Unit 2, SE/TE, pp.61 and 103. There are numerous and consistent references to California throughout the curriculum. Real-world applications are often focused on California specific scenarios.

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* Criterion #10: Grade 6, OL, Earth and Space, Module: Dynamic Earth, Lesson 2: Development of a Theory, Lesson Library, Videos, Simulations, and Interactives, Video: Seafloor Spreading; Grade 7, OL, Module: Biodiversity in Ecosystems, Lesson 1: Benefits of Biodiversity, Lesson Library, Videos, Simulations, and Interactives, Video: Counting Species in California; Grade 8, Unit 3, SE/TE, p.189. The curriculum is enriched with opportunities for students to access informational texts and primary sources, simulations, and videos and presents examples of notable scientists and engineers in grades 6, 7, and 8.

## Criteria Category 2: Program Organization

The organization and features of the instructional materials support instruction and learning of the CA NGSS.

**Citations:**

* Criterion #5: Grades 6–8, OL, Program Resources: Course Materials, Course Planning Resources, Correlations, Pacing, and Materials Lists, Pacing: California Inspire Science. The instructional resources are grade-level specific and provide instructional content for 180 days of instruction for at least one daily class period, including an estimate of the necessary instructional time for grades 6, 7, and 8.
* Criterion #6: Grade 8, Unit 3, TE, pp.2E–2F and 6B. The content is well organized in all units at all grade levels and is presented in a manner consistent with providing all students an opportunity to achieve the essential knowledge and skills described in the CA NGSS and the CA Science Framework.
* Criterion #8: Grade 7, Life, Unit 4, SE/TE, pp.65–72, STEM Module Project Population Probabilities. The STEM projects at the end of each module allow for in-depth study to extend and reinforce learning in the unit.
* Criterion #14: Grades 6–8: All technology support is available through a phone call or online. Hover over the profile button at the top of the screen for links to help; Grade 6, OL, Earth and Space, Module: The Water Cycle, Lesson 2: Water on Earth’s Surface, Lesson Library, Videos, Simulations, and Interactives, PhET Simulation: Glaciers; Grade 7, OL, Life, Module: Matter and Energy in Ecosystems, Lesson 2: Flow of Energy, Lesson Library, Videos, Simulations, and Interactives, Animation: Food Webs; Grade 8, OL, Physical Science, Module: Forces and Motion, Lesson 1: Position and Motion, Lesson Library, Videos, Simulations, and Interactives, Video: Get Moving! The electronic learning resources support instruction that is connected explicitly to the CA NGSS, have a well-designed user interface, provide technical support, and include suggestions for appropriate and differentiated use in all grade levels in the program.

## Criteria Category 3: Assessment

The program includes multiple models of both formative and summative assessment tasks for measuring what students know and are able to do and provides guidance for teachers on how to use scoring rubrics and interpret assessment results to guide instruction.

**Citations:**

* Criterion #1**:** Grade 7, SE/TE, Unit 1, pp.151, 165, 185–192, 193. The assessments at each grade level throughout California Inspire Science reflect the three-dimensional nature of CA NGSS and the Science Framework. We have provided citations for Grade 7, Life Science.
* Criterion #2: Grade 6, Earth and Space, Unit 4, SE/TE, p.57, Earth’s Motion Paige Keeley Science Probe. The Paige Keeley Science Probes provide and entry level assessment for each unit that helps teachers elicit student knowledge and preconceptions and gauge students’ understanding of the three dimensions of NGSS.
* Criterion #3: Grade 6, Unit 2, TE, pp.44J–46, 155–160 STEM module As the Water Turns. Grade 6, Unit 2, TE, p.97. The STEM Module supports teachers in engaging students in formative assessment. Paige Keeley Science Probes are used throughout and revisited during the unit to support teachers in determining student preconceptions, as well as continuing to monitor students’ understanding during the unit.
* Criteria #7: Grade 7, SE/TE, Unit 1, pp.59–64. The summative assessments provided by Inspire Science provide valid, reliable, and fair measures of students’ progress and attainment of three-dimensional learning after a period of instruction.

## Criteria Category 4: Access and Equity

Program materials ensure universal and equitable access to high-quality curriculum and instruction for all students and provide teachers with suggestions for differentiation for students with special needs.

**Citations:**

* Criteria #1: Grade 8, OL, Physical Science, Program Resources: Course Materials, Course Planning Resources, Supporting All Learners, Universal Access. The Universal Access Guides, which are available for all grades, provide strategies for teachers that align to the goals of Chapter 10 in the CA Science Framework.
* Criterion #2: Grade 7, Life Unit 3, TE, p.2I; Grade 8, Unit 1, TE, p.104I. The ELD supports suggested for these units include research-based strategies that are consistent with the CA ELD Standards.
* Criterion #3: Grade 6, Earth and Space, Unit 3, TE, p.120, Teacher Toolbox; Grade 8, Forces, Unit 3, TE, p.14, Differentiated Instruction. The Teacher Toolbox provided by McGraw-Hill supports teachers in addressing the needs of students with disabilities in lessons. The Differentiated Lessons with AL and BL (Approaching Level and Beyond Level) extensions and supports meet criterion 3 to support teachers addressing the needs of students.

## Criteria Category 5: Instructional Planning and Support

The instructional materials provide coherent guidelines for teachers to follow when planning three-dimensional instruction and are designed to help teachers provide effective standards-based instruction.

**Citations:**

* Criteria #3: Grade 6, Unit 3, SE/TE, pp.57, 121, 152; Grade 7, Life, Unit 2, pp.5, 8–9; Grade 8, Unit 3, TE, p.37. The use of the Paige Keeley prompts and the teacher support provide opportunities for checking for understanding and adjusting lessons. The consistency with the Claim Evidence Reasoning pages that are revisited during the unit provides teachers with informal assessment opportunities within the unit.
* Criteria #6: Grade 8, SE/TE**,** Unit 1, pp.95–102. There is guidance for teachers that supports how to implement tasks and assessments.
* Criteria #7: Grade 6, SE/TE, Unit 2, p.88; Grade 7, SE/TE, Unit 4, p.85; Grade 8, SE/TE, Unit 4, p.18. The Teacher and Student page numbers have a 1:1 correspondence. Electronic resources have the same title reference. This makes finding resources simple and effective and allows time to be spent engaging in the curriculum.
* Criteria #9: Grade 6, OL: Earth and Space, Module: The Water Cycle, Module Planning Resources, Instructional Resources, Letter to Home: The Water Cycle; Grade 8, OL: Physical Science, Module: Electromagnetic Forces, Module Planning Resources, Instructional Resources, Letter to Home: Electromagnetic Forces. There are numerous examples of how instructional objectives for three-dimensional learning are explicitly stated and clearly identifiable in the teacher resources in each grade level of the program. Teacher resources include guidance on explaining these objectives to parents in “Letters to Home” Resources online.
* Criteria #17: Grade 6, OL, Earth and Space, Module: Weather and Climate, Module Planning Resources, Instructional Resources, Letter to Home: Weather and Climate; Grade 7, OL, Life, Module: Matter and Energy in Ecosystems, Module Planning Resources, Instructional Resources, Letter to Home: Matter and Energy in Ecosystems. The California Inspire Science provides homework options, at each grade level, which include suggestions and guidance to the teacher to support and extend the learning in the classroom. Letters to Home are available for each module. They provide additional student learning opportunities and projects with encouraged family involvement.

## Edits and Corrections:

The following edits and corrections must be made as a condition of adoption:

| # | Grade Level | Component | Page Number(s) | Current Text | Proposed Corrected Text | Reason for Edit |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | 7 | Collaboration Kit | Unit 2: Module 1 | California Inspire Science Collaboration Kit Unit 1: Life Structure & Function Grade 6 Module 1: Cells and Life | California Inspire Science Collaboration Kit Unit 2: Life: Structure & Function Grade 7 Module 1: Cells and Life | Life Science is Grade 7, not Grade 6 Life: Structure and Function is Unit 2, not Unit 1 |
| 2 | 7 | Collaboration Kit | Unit 2: Module 2 | California Inspire Science Collaboration Kit Unit 1: Life Structure & Function Grade 6 Module 2: Body Systems | California Inspire Science Collaboration Kit Unit 2: Life Structure & Function Grade 7 Module 2: Body Systems | Life Science is Grade 7, not Grade 6 Life: Structure and Function is Unit 2, not Unit 1 |
| 3 | 6*–*8 | TE, all Teachers Editions | All G pages | Materials included in the Collaboration Kit are listed in blue. | Add blue to appropriate text. | None of the materials are listed in blue. |
| 4 | 7 | TE, Unit 2 | p. 18 | This microbiologist is testing samples in Sacramento, California to determine whether they the individual they came from is infected with the swine flu. | This microbiologist is testing samples in Sacramento, California, to determine whether the individual they came from is infected with the swine flu. | Typos |
| 5 | 6 | OL: Program Resources: Course Materials: Correlations: California NGSS, Earth and Space | n/a | Scientific Knowledge Assumes an Order and Consistency in Natural ystems. | Scientific Knowledge Assumes an Order and Consistency in Natural Systems | Typo |
| 6 | 6 | OL: Program Resources: Course Materials: Correlations: California NGSS, Earth and Space | n/a | Cause and Effec | Cause and Effect | Typo |
| 7 | 6 | TE, Unit 3, under Before You Begin… | p. 144 | “Arc of Destruction.” | “Arc of Deforestation.” | Incorrect title – presumes negative opinion |
| 8 | 6 | TE, Unit 3, In table | p. 13 | % Lost | % Left (possibly) or Remaining | The table states - Total Original Forest, Total Remaining and % Lost - but the answer key and the instructions don’t yield lost, they yield remaining forest % |
| 9 | 7 | TE Unit 1 | p. 152 | …, (Under sample answers) | Replace comma with a period. | typo |
| 10 | 7 | SE/TE Unit 1 | p. 154 | ambhihians | amphibians | typos (happens multiple times on the page) |
| 11 | 7 | SE/TE Unit 2 | p. 20 | studnet | students | typo |
| 12 | 7 | SE/TE Unit 2 | p. 144 | Stephen Hawkins is a famous...he has gone… The disease has caused… which has affected… He has... | Stephen Hawkins was a famous… he went on to… The disease caused… which affected… he worked | Verb tense based on his death |
| 13 | 7 | TE Unit 3 | p. 13 | 13 (page number on the page) | 13 | Bold the one for consistency |
| 15 | 8 | SE/TE | Unit 1, p.211 | “Once the negative charges are in the farthest…” | “Once the negative charges are in the farther...” | Typo |
| 16 | 8 | SE/TE | Unit 1, p.227 | “Voltage is the electrical potential energy difference between two places in a circuit.” | “Voltage is the electrical potential energy difference per charge between two places in a circuit.” | Simple factual error |
| 17 | 8 | SE/TE | Unit 1, p.227 | A light bulb connected to a 9 V battery produces about six times (9 divided by 1.5) more light and thermal energy than the same bulb connected to a 1.5 V battery. | A light bulb connected to a 9 V battery produces about 36 times more light and thermal energy than the same bulb connected to a 1.5 V battery. | Factual error. Increasing the voltage by a factor of six also increases the current by a factor of six, resulting in a 36-fold increase in light and thermal energy produced. Or, electrical power produced = IV = V squared/R. |
| 18 | 8 | SE/TE | Unit 1, p.241 | “Magnetic fields around current carrying wires are strongest closest to the wire.” | “Magnetic fields around current carrying wires are stronger closer to the wire.” | Typo |
| 19 | 8 | SE/TE | Unit 2, p.19 | “The amplitude of a wave is proportional to the energy that produces the wave.” | “The square of the amplitude of a wave is proportional to the energy that produces the wave.” | Simple factual error. Stated correctly on the following page. |
| 20 | 8 | SE/TE | Unit 3, p.15 | “His contributions to science are recognized by naming the unit for energy the Joule (J).” | “His contributions to science are recognized by naming the unit for energy the joule (J).” | Typo |
| 21 | 8 | SE/TE | Unit 3, p.34 | “When energy is added to a solid, such as ice, the energy increases the speed of the particles by increasing the kinetic energy of the particles.” | “When energy is added to a solid, such as ice, the energy increases the speed of the particles by increasing the potential energy of the particles.” | Simple factual error |
| 22 | 8 | SE/TE | Unit 3, p.140 | “…less air particles…” | “…fewer air particles” | Grammatical error |

## Social Content Citations:

The panel identified the following social content violations:

| # | SC Code | Grade Level | Component | Page Number(s) | Current Text | Proposed Corrected Text | Reason for Citation |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | L.1. | 6 | OL: Program Resources: Course Materials: Science and Engineering Handbook | p.41 | Tire with Mercedes logo on flat tire | Remove Mercedes logo | Brand names and corporate logos |
| 2 | L.1. | 8 | OL: Light: Lesson 4: Elaborate: Interactive Presentation “A Day in the Life of an Industrial Psychologist” | Slide 1 (TE Unit 2, p.139) | Red sports car | Remove the Ferrari logo | Brand names and corporate logos |

California Department of Education, August 2018