**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)** |
| --- | --- | --- |
| Great Minds LLC | Great Minds Science | 4 |

## Program Summary:

Great Minds Science includes: Teacher Editions (Modules 1-4), Student Edition Science Logbook Set (Modules 1-4), Science Teacher Online Implementation Support Materials.

## Recommendation:

Great Minds Science is recommended for adoption for 4 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 4, Module 2, TE, Lesson 19, pp. 137–138; Grade 4, Module 2, TE, Lesson 20, pp. 139-141. The program includes numerous exemplars of the standards being fully covered in grade 4.
* Criterion #2: Grade 4, Module 1, TE, Lesson 5, pp. 51-55; Grade 4, Module 1, TE, Lesson 13, pp. 102-103. Exemplars throughout the grade 4 program provide instructional resources to engage students in using text, discourse, and experiential learning to develop mastery of the three integrated dimensions of the CA NGSS: the SEPs, the CCCs, and the DCIs.
* Criterion #7: Grade 4, Module 4, TE, Lesson 1, p. 14; Module 4, TE, Lesson 10, p. 87. These are examples of how the publisher used grade-level appropriate primary sources to integrate three-dimensional learning.

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* Criterion #8: Grade 4, Module 3, TE, Lesson 1, pp. 17-24. Grade 4 materials are replete with instructional resources to introduce real-world phenomena and systems that students can investigate, model, and explain using the targeted DCIs and CCCs.
* Criterion #10: Grade 4, Module 4, TE, Lesson 17, Side Note p. 130, Amelia Lost. The science curriculum is enriched with opportunities for students to access informational texts, literature, simulations and other media related to science and engineering, and it presents diverse examples of notable scientists and engineers.

## Criteria Category 2: Program Organization

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

**Citations:**

* Criterion #1: Grade 4, Implementation Guide, Scope and Sequence, https://cdn2.hubspot.net/hubfs/3454910/CaliforniaGMScienceIG.0.pdf?t=1531925300163; Module 1, TE, pp. 4-10, pp. 258-275. Sequential organization of the material provides structure concerning what students should learn each year and allows teachers to convey the science content incorporating the three-dimensional learning expressed in the CA NGSS.
* Criterion #4: Grade 4, Implementation Guide, Supporting Diverse Learners, Instructional Routines, Speaking and Listening Supports, https://cdn2.hubspot.net/hubfs/3454910/CaliforniaGMScienceIG.0.pdf?t=1531925300163; Grade 4, Module 1, TE, Lesson 9, Side Note, p. 78. Teacher resources provide support to engage students in three-dimensional learning and suggest research-based strategies to elicit student thinking and support student discourse.
* Criterion #8: Grade 4, Module 3, TE, pp. 283-300. Topics within modules are selected for in-depth study and are developed through their role in explaining selected phenomena, chosen to support students in building the knowledge and abilities needed to achieve proficiency in a bundle of PEs.
* Criterion #14: Grade 4, Module 4, TE, pp. 245-246. Student tasks (referred to in text as Engineering Challenges, Socratic Seminars and End-of-Module Assessments), including end-of-chapter or culminating problems and exercises, are three-dimensional in nature and build in complexity throughout the year.

## 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 #2: Grade 4, Module 1, TE, Lesson 11, p. 95. Entry-level assessments are provided for each unit to help teachers elicit students’ prior knowledge and preconceptions and gauge their facility for using the SEPs and CCCs. Information is provided to teachers to help them use the results of those assessments to guide instruction and to determine modifications for specific students or groups of students.
* Criterion #5: Grade 4, Module 4, TE, Lesson 13, p. 106; Grade 4, Module 4, TE, Lesson 24, p. 173. Assessments yield information teachers can use in planning and modifying instruction to help all students meet or exceed the standards.
* Criterion #7: Grade 4, Module 2, TE, pp. 160-164; Grade 4, Module 3, TE, pp. 228-240. Summative assessments provide valid, reliable and fair measures of students' progress and attainment of three-dimensional learning after a period of instruction and involve multi-component tasks.
* Criterion #11: Grade 4, Module 2, TE, p. 164. Assessment tools include guidance on measuring students’ ability to apply information literacy skills when obtaining and evaluating information about science topics.

## 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:**

* Criterion #1: Grade 4, Module 3, TE, Lesson 11, p. 95. The instructional resources throughout the program reflect the goals of access and equity outlined in Chapter 10 of the CA Science Framework.
* Criterion #2: Grade 4, Implementation Guide, English Language Development, Supporting Diverse Learners, https://cdn2.hubspot.net/hubfs/3454910/CaliforniaGMScienceIG.0.pdf?t=1531925300163; Grade 4, Module 4, TE, Lesson 2, Side Note, p. 25. Lessons and teacher resources include research-based strategies to address the needs of English learners consistent with the CA ELD Standards.
* Criterion #3: Grade 4, Implementation Guide, Supporting Diverse Learners, https://cdn2.hubspot.net/hubfs/3454910/CaliforniaGMScienceIG.0.pdf?t=1531925300163; Module 2, TE, Lesson 8, Side Note, p. 89. Instructional resources incorporate instructional strategies to address the needs of students with disabilities in lessons, assessments, and teacher resources, as appropriate.
* Criterion #4: Grade 4, Module 1, TE, Lesson 2, pp. 24, 26, 27. The program the following teacher resources that supply a differentiated path for all students: Implementation Guides, Support for Diverse Learners, Support for English Language Development and Formative Assessment Opportunities. In particular, instructional resources provide guidance to support students with special needs, including standard English learners, English learners, long term English learners, students living in poverty, foster youth, girls and young women, advanced learners, students with disabilities and students below grade level in science skills, three-dimensional learning, literacy skills, or mathematics skills.

## 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:**

* Criterion #2: Grade 4, Implementation Guide, Product Components, Learning Design, Scope and Sequence, https://cdn2.hubspot.net/hubfs/3454910/CaliforniaGMScienceIG.0.pdf?t=1531925300163; Module 4, TE, Lesson 1, p. 14. The teacher resources provide an estimated instructional time for each activity, lesson, chapter, and unit which allows for student engagement in the SEPs and engineering design projects.
* Criterion #6: Grade 4, Module 4, TE, pp. 185-191; Grade 4, Module 4, Science Logbook, Lesson 22, p. 59. Suggested student tasks including classroom activities, end-of chapter tasks, suggested out-of-school activities, and assessment tasks are supported with guidance for the teacher on how to implement and, where appropriate, grade the task. Assessment keys and rubrics are provided.
* Criterion #17: Grade 4, Module 3, TE, Lesson 10, p. 90. Suggested homework extends and reinforces classroom instruction. The homework provides opportunities to support student learning through shared experiences with family. Opportunities include projects, journaling, reflection, or interviews with parents around a concept or activity.
* Criterion #21: Grade 4, Implementation Guide, English Language Development, Supporting Diverse Learners, Instructional Routines, Speaking and Listening Supports, Socratic Seminar Resource. https://cdn2.hubspot.net/hubfs/3454910/CaliforniaGMScienceIG.0.pdf?t=1531925300163. The teacher resources provide guidance and support for engaging students in collaborative conversations using grade level appropriate academic vocabulary for scientific discourse.

## 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 | 4 | TE, Module 4 | Throughout M4, for example: 149 (side note) | The F uture | The Future | extra spaces |

## Social Content Citations: None

California Department of Education, August 2018