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

# REVIEW PANEL ADVISORY RECOMMENDATION2018 SCIENCE ADOPTION OF INSTRUCTIONAL MATERIALS

| **Publisher** | **Program** | **Grade Level(s)** |
| --- | --- | --- |
| Houghton Mifflin Harcourt Publishing Company | California HMH Science Dimensions | K–6 |

## Program Summary:

California HMH Science Dimensions includes: California Student Edition Interactive Worktext (SE); California Student Online Interactive Digital Curriculum; California Teacher Edition (TE); California Teacher Digital Management Center; California Assessment Guide (AG)

## Recommendation:

California HMH Science Dimensions is recommended for adoption for K–5 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 1.1: Grade K, SE/TE pp. 231–233, 241–243, 247, 252–253; Grade 1, SE/TE pp. 74–76, 79; Grade 2, SE/TE pp. 17–23; Grade 3, SE pp. 399–401, 419–423, TE pp. 391A; Grade 4, SE/TE pp. 207–209, 214–217, 422–430, 451–453, 474–477; Grade 5, SE/TE pp. 478–481. We found examples where standards were covered across the Disciplinary Core Ideas (DCIs), Cross Cutting concepts (CCCs), Science and Engineering Practices (SEPs), and Performance Expectations (PEs).
* Criterion 1.2: Grade 5, SE/TE pp. 216–218. Three integrated dimensions are contained through SEPs, CCCs, and DCIs with hands-on activity.

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* Criterion 1.4: Grade 2, TE p. 241A. Instructional resources progressively build students’ abilities to meet all grade-level PEs.
* Criterion 1.5: Grade K, SE/TE pp. 33–37; Grade 4, SE/TE pp. 69–71. Teacher resources helped engage students in learning with rubrics and questioning.
* Criterion 1.7: Grade 1, SE/TE pp. 185–186. Take It Further Activity highlights scientific research and is integrated into Three-Dimensional Learning.
* Criterion 1.8: Grade 3, SE/TE p. 349 Evidence Notebook. Instructional resources use real world phenomena allowing students to investigate, model and explain using DCIs and CCCs.

## Criteria Category 2: Program Organization

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

**Citations:**

* Criterion 2.2: Grade 3, TE p. 230. Teacher questioning is effectively used to assess student knowledge and to promote student discourse and learning through the CCCs.
* Criterion 2.4: Grade 5, SE/TE p. 93 Evidence Notebook. The textbook contains resources for teachers guiding them to ask students questions for writing evidence.
* Criterion 2.5: Grade 2, TE pp. T26–T30. The teacher materials provide a detailed pacing guide for each grade level with a few different options for teachers to utilize to cover 180 days of instruction.
* Criterion 2.9: Grade K–5, California Student Online Interactive Digital Curriculum. Online simulations on science dimensions hmhco.com website, provide meaningful use of technology to investigate phenomena.
* Criterion 2.11: Grade 1, SE/TE p. 101C. Environmental principles and concepts include references to where supplemental resources may be found. “CA Ed & the Environment Initiative Curriculum.”

## 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 3.1: Grade 4, SE/TE pp. 306–307. Students complete a performance task and are assessed using a rubric aligned with the three dimensions of CA NGSS. In addition, on TE page 309, there is a key that shows which questions pertain to the dimension being assessed.
* Criterion 3.2: Grade 1, AG pp. 73–75. Unit pretest is provided to help teachers elicit students’ prior knowledge and preconceptions and gauge their facility for using the SEPs and CCCs.
* Criterion 3.5: Grade 2, AG pp. 44–46. Unit pretest yields information teachers can use in planning and modifying instruction to meet or exceed the needs of the standards.
* Criterion 3.9: Grade 5, AG. pp. 187–206. Resources include student work expectations and analytical rubrics.
* Criterion 3.10: Grade 3, SE/TE pp. 406–408. The third grade materials on pp. 406–408 use multiple measures to assess student learning, including open-ended and short-answer questions, drawing, hands on activities, and writing claim, evidence and reasoning statements.

## 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 4.1: Grade K, SE/TE p. 59; Grade 1, TE pp. 3, 11, 60; Grade 5, SE/TE p. 15. The program reflects the access and equity goals of the Framework, including contributions of women in science.
* Criterion 4.2: Grade 3, California English Language Development (ELD) page p. x, TE p. 317. The program includes suggestions for differentiation for ELL learners within the Teacher Editions (e.g. Grade 3 TE p. 317) and an additional resource book for teachers that include a variety of tools, such as sentence frames (ELD, Grade 3 pp. x–xix).
* Criterion 4.3: Grade 4, TE p. 69. Instructional Resources incorporate strategies to meet the needs of students with disabilities by modifying lesson activities.
* Criterion 4.4: Grade 2, TE p. 43B. The California Diversity section supplies a differentiated path for all students: students with disabilities, girls and young women, foster youth, students living in poverty, English learners, ethnically diverse learners, and migrant 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:**

* Criterion 5.2: Grade 3, TE pp. 159E–159H. Estimated instructional time in each unit and lesson is provided.
* Criterion 5.3: Grade 2, SE/TE pp. 71. Teacher is provided with questions to assess student knowledge. Guidance is provided to aid struggling students.
* Criterion 5.3: Grade 5, TE p. 147. Teacher resources include guidance in instruction to deepen understanding of DCIs, for formative assessments, and checking for understanding.
* Criterion 5.4: Grade 1, TE pp. T22–T23; Grade 3, TE pp. T24–T25. “Program Scope and Sequence” and “Trace Tool to the NGSS” online tools address knowledge and skills learned in prior grades.
* Criterion 5.9: Grade 4, TE pp. 237, 240, 250. Instructional objectives for three-dimensional learning are explicitly stated.

## 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 | 5 | SE/TE | 177 | “Present you findings” | “Present your findings” | Simple grammatical errors |
| 2 | 1 | TE | 163 | SEP Notation heading in margin “AObtaining” | Obtaining | Typo |

## Social Content Citations: none

## California Department of Education, August 2018