**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)** |
| --- | --- | --- |
| Accelerate Learning, Inc. | STEMscopes CA NGSS 3D | 6–8i |

## Program Summary:

STEMscopes CA NGSS 3D includes: STEMscopes CA NGSS 3D includes: a digital subscription; student notebook; and STEMscopedia.

## Recommendation:

STEMscopes CA NGSS 3D is recommended for adoption for 6–8i 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 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 6, Segment 1: Scope: Systems and Subsystems in Earth and Life Science. The program contains numerous exemplars of three-dimensional learning.
* Criterion #1.1: Grade 7, Segment 1: Scope: Ecosystem Biodiversity: Explore 3: Engineering Solutions-Wetland Mitigation. The program contains numerous exemplars of three-dimensional learning.
* Criterion #1.1: Grade 8, Segment 1: Scope: Changes in Force and Motion: Explore 1-3. The program contains numerous exemplars of three-dimensional learning.

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* Criterion #1.8: Grade 7, Segment 1: Human Dependence on Natural Resources: Engage: Investigative Phenomenon. The program contains examples that show strengths in the resources that introduce real world phenomena and systems.
* Criterion #1.10: Grade 8, Segment 2: Scope: Earth, Sun, and Moon System: Elaborate. The program contains numerous examples of evidence that the curriculum is enriched at the grade level.
* Criterion #1.3: Grade 6, Segments: Teacher: Toolbox: 3D Support. The program contains numerous examples of instructional resources that support teachers to engage students in using SEPs and CCCs through multiple exemplars.

## Criteria Category 2: Program Organization

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

**Citations:**

* Criterion #2.10: Grade 6, Segment 2: Scope: Thermal Energy Transfer: Explore 3: Engineering Solution-Build a Medicine Container. The program contains an example of strength in appropriate engineering design tasks as a path to understanding and applying science ideas being learned.
* Criterion #2.9: Grade 8, Segment 1: Objects Move and Collide: Scope: Gravitational Forces: Explore 3 Activity: Investigating Orbits. The program contains strength in meaningful use of technologies using a computer simulation (PhET) to investigate gravitational forces.
* Criterion #2.2: Grade 7, Segment 3: Scope: Seafloor Spreading: Engage. The instructional resources within the program strongly promote student-to-student discourse and guide student learning.
* Criterion #2.13: Grade 6, Teacher Planning Companion pages 9-10. The “grade 6” storyline within the program is a strong example of how the progression builds ideas in a planned sequence so that each unit builds on prior learning.

## 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 #3.7: Grade 7, Segments: Natural Processes and Human Activities Shape Earth’s Resources and Ecosystems: Scope: Seafloor Spreading. The program contains an exemplar of summative assessments and attainment of three-dimensional learning using multicomponent tasks.
* Criterion #3.8: Grade 8, Scope: Genes and Proteins: Elaborate: Math Connections. The program contains a strong example of how the program assesses student progress towards meeting the three dimensions through both writing and performance tasks.
* Criterion #3.11: Grades 6-8, STEMscopedia pg. 141-148 and Segment: Teacher Toolbox: Literacy Toolbox. The Literacy Toolbox and STEMscopedia are exemplars of how assessment tools include guidance on measuring students’ ability to apply information literacy skills.
* Criterion #3.10: Grade 6, Segment 3: Causes & Effects of Regional Climates: Scope: Sensory Receptors Acceleration: PBL Energy Drinks. The program’s PBL lesson on energy drinks is an exemplar of assessment that uses multiple measures of student performance and guides teachers through detailed rubrics.

## 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 6, Segment 2: Scope: Energy Transfer and Temperature: Teacher Explore 2: Scientific Investigation. Strong examples exist within the program of how the resources reflect the goals of access and equity.
* Criterion #4.1: Grade 8, Segment 3: Scope: Geologic History of Earth: Teacher Explore 1: Activity: Law of Superposition. The program contains exemplars of resources to meet the goals of equity and access.
* Criterion #4.2: Grades 6-8, Segment 3: Scope: Plate Tectonics: Explore 2. The program’s Super Evidence is an exemplar of how suggested lessons include research-based strategies to address the needs of English learners consistent with the California English Language Development Standards.
* Criterion #4.3: Grade 8, Segment 4: Scope: Properties of Visible Light: Elaborate: SE Reading Science A, B, and C: Intervention TE: Guided Practice and Independent Practice. The program contains resources that incorporate instructional strategies to address the needs of students with disabilities.
* Criterion #4.4: Grade 7, Segment 1: Scope: Structure of Matter: Teacher Explore 3: Activity: Atoms, Molecules, Extended Structures, and Substances. The Densities of Materials within the program is a strong example of how the teacher resources supply a differentiated path for all students with guidance to support students with special needs.

## 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 6, Teacher Planning Companion p. 9-13. The program contains strength in the teacher resources providing estimated instructional time for each activity, lesson, chapter, and unit, allowing for student engagement design project.
* Criterion #5.3: Grade 8, Segment 4: Sustaining Local and Global Biodiversity: Scope: Introduction to Properties of Waves. The program’s Waves Scope to be an exemplar of guidance in daily lessons and units of instruction with appropriate opportunities for checking for understanding and adjusting lessons to ensure three-dimensional learning through 3D hands-on explore activities.
* Criterion #5.14: Grade 7, Segment 4: Sustaining Biodiversity and Ecosystem Services in a Changing World: Scope: Ecosystem Biodiversity, The program contains a breadth of resources that support three-dimensional instruction that is outlined in the California Next Generation Science Standards.
* Criterion #5.10: Grade 7, Segment 2: Characteristics of Chemical Reactions: Engage: Investigative Phenomena Table (print file). The program contains strength in this student resource and provides experiences that clearly build to the development of learning goals prior to instruction by introducing a phenomenon.
* Criterion #5.12: Grade 6, Segment 3: Scope: Inheritance and Genetic Variation, Home Materials List. The program shows strength with the scope that contains an interactive materials list within the program.

## 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 | Student Notebook | pp. 33, 62, 125, 155, and 483 | Pictures | Clearer pictures | Blurry images |
| 2 | 7 | Student Notebook | p. 207 | Changes in Matter | Changes in Matter | Text intrudes into writing space provided |

## 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 | B.1. | 7 | Teacher Toolbox: Secondary Grade 7: Segment: Scope: Competition in Ecosystems: Teacher Explore | N/A | Students in poverty may not know appropriate social behaviors because they may not have been taught by a parent or caregiver and appropriate behavior is crucial when it comes to learning. | Many students, including students in poverty, may not know appropriate social behaviors… | The original text portrays a negative stereotype of students in poverty. |
| 2 | C.4. | 6 | Segment 1: Systems and Subsystems in Earth and Life Sciences: Scope: Bodies and Systems: Elaborate: Scientist Spotlight | N/A | The couple was forced to move frequently when people began to question his gender identity. | Despite Hart’s numerous contributions to TB research, the couple was forced to move frequently when people began to question his gender identity. | Original statement trivialized Dr. Hart’s work in tuberculosis. |

California Department of Education, August 2018