**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)** |
| --- | --- | --- |
| Amplify Education, Inc. | Amplify Science: California Discipline Specific Course Model | 6-8d |

## Program Summary:

Amplify Science: California Discipline Specific Course Model includes: Amplify Science California: Discipline Specific Course Model includes: Digital Teacher’s Guide (DTG), Digital Student Library.

## Recommendation:

Amplify Science: California Discipline Specific Course Model 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: DTG, Grade 6, Geology on Mars, Ch. 2, Lesson 2; Grade 7, Traits and Reproduction, Chapter 3, Lesson 2; Grade 8, Thermal Energy Unit, Chapter 2, Lesson 4. There are numerous exemplars of the standards being fully covered in grades 6, 7, and 8.
* Criterion #10: DTG, Grade 8, Thermal Energy, Ch. 2, Lesson 2.4, Activity 2; Grade 7, Metabolism, Ch.1. Lesson 1.2. 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 throughout grades 6, 7, and 8.

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* Criterion #11: Grade 6, Geology on Mars, Digital resources, Article Compilation, C1–C2 “Who Becomes a Space Scientist”; Grade 7, Matter and Energy in Ecosystems: Biodome Collapse, “Meet a Scientist Who Studies How Plants Find Water Underground.” The Amplify digital resources provided numerous examples of scientists with diverse backgrounds who have made important contributions to society through science and technology.
* Criterion #13: Grade 8, DTG, Light Waves: Ch. 1, Lesson 1.2, Activity 2–4; Grade 8, DTG, Thermal Energy: Ch. 4, Lesson 4.2, Activity 2-3, Science Seminar. There are examples of students being led in student-to-student discussions. We find that materials provide support for students to develop grade-level academic vocabulary and discipline-specific vocabulary through classroom discourse and grade-level appropriate text resources.
* Criterion #14: Grade 8, Magnetic Fields, Ch. 1, Lesson 1.2, Activity 5; Grade 6, Earth’s Changing Climate: Ch. 2, Lesson 2.2, Lesson Brief; Grade 7,Traits and Reproduction: Ch. 2, Lesson 2.1, Lesson Brief. There is evidence at all grade levels of the inclusion of teacher guidance to support all students, including language learners and non-standard English speakers, to develop their science vocabulary and reading abilities. The curriculum also includes multiple elements that commonly occur in science (text, diagrams, graphs and charts, etc.).

## Criteria Category 2: Program Organization

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

**Citations:**

* Criterion #1: Program Guide, Planning a Year, Scope and Sequence and Grade 6–8 grade-level builds; Grade 7, Matter and Energy in Ecosystems: Unit Guide, Planning for the Unit, Progress Builds. Both the program guide for the curriculum as a whole and the planning guides and progress build for each unit provide teachers with structure for student learning and sequential organization information for planning.
* Criterion #2: Grade 8, Force and Motion: Ch. 3, Lesson 3.2, Activity 4, Instructional Guide; Grade 7, Evolutionary History: Ch. 1, Lesson 1.3, Activity 2, On-the-Fly Assessment. The On-The-Fly Assessments and the Instructional Guides in Amplify support teacher questioning strategies as a tool to assess student skills and understanding and guide student learning.
* Criterion #4: Grade 7, Metabolism: Unit Guide, Teacher References, 3-D Statements; Grade 8, Thermal Energy: Ch. 1, Lesson 1.4, Activity 2, On-the-Fly Assessment. On-the-Fly Assessments help teachers make sense of students’ activity during a learning experience, elicit students’ thinking, and provide evidence of how students understand core concepts and develop dexterity with SEPs and CCCs. Each lesson is designed to engage students in three-dimensional learning, and teacher resources include detailed, step-by-step instructional guides, along with student materials, to support this aim.
* Criterion #8: Grade 6, Earth’s Changing Climate Internship. The phenomenon and the subsequent activities motivate and engage students in three-dimensional learning and scaffold and support students in developing explanations. This unit is an example of students building knowledge and abilities needed to achieve proficiency in multiple PEs.
* Criterion #9: Grade 6, Earth’s Changing Climate: Ch. 1, Lesson 1.5, Activity 2, screens 1–5 of 7, Instructional Guide, Student View Students analyze primary source data from NASA, NOAA, EPA, USGS, United Nations, and the Earth Policy Institute.

## 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 #5: Grade 7, Natural Selection: Unit Guide, Assessment System and Embedded Formative Assessments. Through a combination of On-the-Fly Assessments, Critical Juncture Assessments, and lesson level differentiation strategies, teachers have a variety of ways and supports to plan and modify instruction based on current student understanding, helping all students meet or exceed the standards. Based on the understanding of the progress students are making as revealed by formative assessments, teachers can further employ strategies in the Differentiation section found in each Lesson Brief, which provides instructional strategies to enable diverse learners to meet or, as appropriate, exceed standards.
* Criterion #8: Grade 6, Earth’s Changing Climate: Ch. 4, Lesson 4.3, Activity 2, Instructional Guide; Grade 7, Traits and Reproduction: Ch. 4, Lesson 4.2, Activity 3, Instructional Guide; Grade 8, Light Waves: Ch. 4, Lesson 4.2, Activity 3, Instructional Guide. Student progress is assessed through both writing and multidimensional performance tasks, which include written scientific explanations, argumentation, investigation and data analysis, developing and using models and designing solutions, computational thinking, asking questions, and defining problems. Expectations for student writing, mathematics, and computational thinking are aligned with grade-level expectations as described in the CA CCSS for ELA and CCSSM.
* Criteria #9: Grade 6, Weather Patterns: Chapter 4, Lesson 3 “Weather Patterns Rubric for Final Written Argument”; Grade 7, Microbiome, Ch. 2, Lesson 8, Digital Resources, End-of-Unit Assessment Scoring Guide. Instructional objectives for three-dimensional learning are explicitly stated and clearly identifiable in the rubrics.
* Criterion #11: Grade 7, Traits and Reproduction, Unit Guide, Assessment System, Program Guide pp. 40–52. There was evidence in the Program Guide to guide teachers on measuring literacy skills and instruction for teachers in the program guide.

## 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 7, Populations and Resources: Unit Guide, Teacher References, Opportunities for Unit Extensions; Grade 8, Chemical Reactions: Ch. 2, Lesson 2.3, Activity 5, screen 2 of 2, “Meet a Scientist Who Preserves Artwork.” The instructional resources reflect the goals of access and equity outlined in Chapter 10 of the CA Science Framework and are consistently found throughout the lessons.
* Criterion #2: Grade 6, Geology On Mars: Ch. 2, Lesson 2.2, Lesson Brief, Differentiation. At every grade level, suggested lessons and teacher resources include research-based strategies to address the needs of ELD learners.
* Criterion #3: Grade 8, Force and Motion: Ch. 1, Lesson 1.1, Lesson Brief**,** Differentiation. Instructional resources incorporate instructional strategies addressing the needs of students with disabilities.
* Criterion #4: Grade 7, Natural Selection: Ch. 2, Lesson 2.5, Lesson Brief**,** Digital Resources, Natural Selection Critical Juncture Assessment Answer Key and Scoring Guide. Teacher resources supply a differentiated path for all 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: Grade 6, Ocean, Atmosphere, and Climate Unit Guide, Teacher Reference, Standards and Goals; Grade 7, Traits and Reproduction, Unit Guide, Teacher Reference, Standards and Goals; Grade 8, Thermal Energy Unit Guide, Teacher Reference, Standards and Goals. The Unit Guides consistently provide background information for teachers about the three dimensions of learning with SEPs, CCCs, and DCIs.
* Criterion #6: Grade 6, Earth’s Changing Climate: Ch. 1, Lesson 1.5, Digital Resources, Activity 3, Instructional Guide, Each lesson has assessment keys and rubrics in the Digital Resources section of the Lesson Brief. Each Unit Guide includes an Assessment System section that describes the location of assessment opportunities and rubrics.
* Criterion #8: Grade 6, Weather Patterns: Unit Guide**,** Planning for the Unit, Materials and Preparation. Teacher resources include a planning guide that describes the relationship between all components of the Amplify program and CA NGSS.
* Criterion #21: Grades 6–8, Program Guide, An Integrated Science and Literacy Program, Academic Language and Vocabulary; Grade 6: Earth’s Changing Climate: Chapter 1, Lesson 4, Activity 4, Instructional Guide “Using the Word Relationships Routine to Reflect”; Grade 8, Phase Change: Chapter 4, Lesson 3, Instructional Guide “Participating in the Science Seminar.” 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 | 7 | Natural Resources Selection Engineering Intern | Unit Overview | They a sequence | They determine a sequence | typo |
| 2 | 6 | Geology on Mars | Who Becames a Space Scientist | “Who Becames a Space Scientist” | “Who Becomes a Space Scientist” | typo |

## Social Content Citations: None

## California Department of Education, August 2018