**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)** |
| --- | --- | --- |
| Teachers’ Curriculum Institute | Bring Science Alive! California Program K–5 | K–5 |

## Program Summary:

Bring Science Alive! California Program K–5 includes: Lesson Guide (CLG), Interactive Student Notebook (ISN), Interactive Tutorial (IT).

## Recommendation:

Bring Science Alive! California Program K–5 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:
  + Grade K, Unit 1, Performance Assessment: Making a Place for Animals to Live, ISN, <https://subscriptions.teachtci.com/shared/programs/151/lessons/2425/slide_shows/10522/edit?student_view=false>;
  + Grade 1, Unit 1, Lesson 4, CLG, Slides 18-21, <https://subscriptions.teachtci.com/shared/programs/152/lessons/1558/slide_shows/145/edit?student_view=false>;

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* + Grade 2, Unit 1, Performance Assessment: Plan a Food Garden for Your School, <https://subscriptions.teachtci.com/shared/programs/153/lessons/2423/slide_shows/6569/edit?student_view=false>;
  + Grade 3, Unit 3, Lesson 4, Investigation in ISN, <https://subscriptions.teachtci.com/shared/sections/12186?nav_info=investigation&program_id=154&student_view=true>;
  + Grade 4, Unit 3, Performance Assessment: Developing Hazard Plans, <https://subscriptions.teachtci.com/shared/sections/17563?locale=en&nav_info=&program_id=155&student_view=true>;
  + Grade 5, Unit 2, Lesson 1, CLC Slides 11-16, 19-22, [https://subscriptions.teachtci.com/shared/programs/156/lessons/1583/slide\_shows/31/edit. The program includes numerous exemplars of the standards being fully covered in grades K-5](https://subscriptions.teachtci.com/shared/programs/156/lessons/1583/slide_shows/31/edit.%20The%20program%20includes%20numerous%20exemplars%20of%20the%20standards%20being%20fully%20covered%20in%20grades%20K-5).
* Criterion #2: Grade 4, CLG (Slides 10-23, 25-27), <https://subscriptions.teachtci.com/shared/programs/155/lessons/1508/slide_shows/55/edit>. Instructional resources in grades K-5 engage students in using text, discourse, and experiential learning to develop mastery of the three integrated dimensions of the CA NGSS: the Science and Engineering Practices (SEPs), Crosscutting Concepts (CCCs), and Disciplinary Core Ideas (DCIs).
* Criterion #4: Grade 2, Unit 3 Progression, <https://platoproduction20160712.s3.amazonaws.com/system/info_bar_files/184/original/BSA_Unit_Progression_G5_U4.pdf?1522694014>. The instructional resources progressively build students’ abilities to meet all grade-level Performance Expectations (PEs) through a three-dimensional instructional sequence.
* Criterion #10: Grades K-5, Biographies, https://subscriptions.teachtci.com/shared/programs/151/biographies (link no longer available). 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.
* Criterion #13: Grade 1,Table of Contents, Literacy Toolkits, <https://subscriptions.teachtci.com/teacher/programs/152?student_view=false>. The materials provide support for students to develop grade-level appropriate academic language and discipline-specific vocabulary through their use in context in classroom discourse around science phenomena (science talk), and through well-written and grade-level appropriate text resources.

## Criteria Category 2: Program Organization

The organization and features of the instructional materials [support/do not support] instruction and learning of the CA NGSS.

**Citations:**

* Criterion #2: Grade 2, Unit 1.2, CLG, Slides 13, 14, 16, 20, 23, <https://subscriptions.teachtci.com/shared/programs/153/lessons/1465/slide_shows>. Instructional resources support teacher questioning strategies as a tool to assess students' knowledge and skills, promote student-to-student discourse, and guide student learning.
* Criterion #3: Grade 5, Unit 4.3, CLG, Learning Progressions, https://subscriptions.teachtci.com/shared/programs/156/lessons/1601/slide\_shows?student\_view=false. Instructional resources explicitly state which knowledge and skills learned in prior grades or units are applied and extended to accommodate new knowledge and skills.
* Criterion #7: Grade 4, Unit 2, Anchoring Phenomena, CLG, Unit Progressions, <https://platoproduction20160712.s3.amazonaws.com/system/info_bar_files/173/original/BSA_Unit_Progression_G4_U2.pdf?1522692804>. Resources include explanations to teachers regarding how the SEPs, DCIs, and CCCs work together to support students in making sense of phenomena and/or to design solutions to problems and build toward the PEs of the CA NGSS. Teacher resources support understanding of how PEs are developed within units and across units throughout a year.
* Criterion #8: Grade 1, Unit 2, Anchoring Phenomenon, CLG, <https://subscriptions.teachtci.com/shared/programs/152/lessons/2347/slide_shows/27468/edit?module=1>. Topics selected for in-depth study 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.

## 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 provide guidance for teachers on how to use scoring rubrics and interpret assessment results to guide instruction.

**Citations:**

* Criterion #1: Grade K, Unit 1.6, Assessment, <https://subscriptions.teachtci.com/staffer/lessons/1541/assessments?program_id=151&student_view=false>. Assessments in the instructional resources reflect the three-dimensional nature of the CA NGSS and the CA Science Framework. Assessment tools measure what students know and are able to do, as defined by the PEs in the CA NGSS. Assessments stress performance tasks rather than rote memorization.
* Criterion #3: Grade 4, Unit 4, Lesson 6, CLG, slide 25 + Teacher Note, <https://subscriptions.teachtci.com/shared/programs/155/lessons/1535/slide_shows/81/edit>. Teacher materials across grades K-5 provide support to engage students in tasks that afford both learning and formative assessment opportunities at the same time and provide guidance to teachers on how to embed formative assessment activities in the broader learning activity.
* Criterion #6: Grade 5, Unit 1, Lesson 2.5, <https://subscriptions.teachtci.com/shared/sections/11403?program_id=156&student_view=true>. Teacher resources supply a differentiated path for diverse students to build toward the PEs of the CA NGSS. In particular, formative assessment tasks are designed to support teachers in collecting and analyzing data about student conceptual understanding.
* Criterion #10: Grade 2, Unit 1, Performance Assessment: Plan a Garden for Your School, <https://subscriptions.teachtci.com/shared/programs/153/lessons/2423/slide_shows/6569/edit?student_view=false>. Assessment tools include multiple measures of student performance as addressed in the assessment chapter in the CA Science Framework, including, but not limited to, engineering design and lab practical tasks; performance-based tasks; open-ended, short answer and essay responses; lab reports; research projects; computational simulations; and oral presentations.

## 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 K, Unit 1, Lesson 1, Resources, Other Resources, <https://subscriptions.teachtci.com/teacher/programs/151/program_resources?lesson_id=1537&student_view=false>. The instructional resources reflect the goals of access and equity outlined in chapter 10 of the CA Science Framework.
* Criterion #2: Grade 3, Unit 3, Lesson 6, Differentiating Instruction, <https://subscriptions.teachtci.com/shared/programs/154/lessons/1498/slide_shows?student_view=false>; Grade 3, Unit 3, Lesson 6, CLG (Spanish), <https://subscriptions.teachtci.com/shared/programs/154/lessons/1498/slide_shows/30772/edit>. At each K-5 grade level, suggested lessons and teacher resources include research-based strategies to address the needs of English learners consistent with the CA ELD Standards.
* Criterion #3: Grade 5, Unit 1, Lesson 5, Differentiating Instruction, <https://subscriptions.teachtci.com/shared/programs/156/lessons/1579/slide_shows?student_view=false>. Instructional resources incorporate instructional strategies to address the needs of students with disabilities in lessons, assessments, and teacher resources, as appropriate, at every grade level.
* Criterion #4: Grade 1, Unit 1, Lesson 1, CLG (click on Differentiating Instruction), <https://subscriptions.teachtci.com/shared/programs/152/lessons/1556/slide_shows>. Teacher resources across grades K-5 supply a differentiated path for all students. 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 1, Pacing Guide, <https://subscriptions.teachtci.com/teacher/programs/152/pacings?lesson_id=1556&student_view=false>. 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 #4: Grade 4, Unit 4, Lesson 1, Learning Progression, <https://subscriptions.teachtci.com/shared/programs/155/lessons/1530/slide_shows?student_view=false>. Program resources address the articulation of three-dimensional learning by identifying the knowledge and skills learned in prior grades and prior grade-level units, and address how to connect and build on these learnings to help students develop increasingly sophisticated ideas.
* Criterion #6: Grade 5, Unit 4, Lesson 1, Assessments, See TCI Assessment: How Do Scientists Know When Substances Change? - English, Under Print Click on Answer Key, Scroll down to Question 17 to see rubric, <https://subscriptions.teachtci.com/staffer/lessons/1593/assessments?program_id=156&student_view=false>. All 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 #14: Grades K-5, TOC (Click on NGSS Design and Standards Map), <https://subscriptions.teachtci.com/teacher/programs/152>. Electronic learning resources, including technology-based assessments, 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.

## 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 | 1 | Unit 2, Lesson 1, CLG | Slides 11-13 | “Here’s the first picture. Guess what it is.” |  | Image is black when clicked and remains inoperable (no spotlights appear). |
| 2 | K | Unit 1, Lesson 3 | Interactive Science Notebook | pdf links to English and Spanish are reversed | Change pdf link so that it corresponds to the correct language. | pdf link is not what is specified |
| 3 | 1 | Unit 1, Lesson 1 | Notebook Answer Key | pdf link for “Notebook Answer Key” links to Spanish: Interactive Notebook | pdf link to English “Notebook Answer Key”. | Answer key links to Spanish version of Notebook. Pdf link is not what is specified. |
| 4 | 1 | Unit 3, Lesson 1, Text | Section 2, paragraph 2 | “They expect the pattern tao happen again.” | “They expect the pattern to happen again.” | typo |
| 5 | 3 | Unit 4 | Performance  Assessment | “an articles” | “an article” | typo |
| 6 | 4 | Unit 2 | Performance Assessment, slide 10 | “you bike device” | “your bike device” | typo |
| 7 | 4 | Unit 2 | Performance Assessment, slide 11 | “a helmet it important” | “a helmet important” | typo |
| 8 | 5 | Unit 2 | Performance Assessment, slide 2 | “Earth’s sphere’s interact for” | “Earth’s spheres interact” | typo |
| 9 | 5 | Unit 2 | Performance Assessment, slide 11 | “Earth’s spheres are connected?” | remove “are” | typo |

## Social Content Citations:

The panel identified the following social content violations: None

California Department of Education, August 2018