**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)** |
| --- | --- | --- |
| Lab-Aids | Issues and Science | 6–7i |

## Program Summary:

Issues and Science includes: Issues and Science for California includes: Student book (SB); Teacher Edition (TE), includes Student Sheets (SS) and Visual Aids (VA); and Teacher Resource (TR).

## Recommendation:

Issues and Science is recommended for adoption for 6–7i 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 6, SB pp.C39-C42; Grade 7, SB p.A40, pp.A44-A47, pp.A73-A74, p.A77, pp.A80-A81, and pp.A84-A85. The instructional materials align to the California Next Generation Science Standards.
* Criterion #1.9: Grade 6, Unit C: Climate and Weather: SB pp.15-18, TE pp.40-47. The program contains exemplars in the program focusing on the applications of science to be learned using authentic and meaningful real-world applications.
* Criterion #1.2: Grade 7, Unit D: Chemical Reactions: SB pp.D3-9, TE pp.D3-27. The program contains examples of opportunities for students to use text, engage in discourse, and employ experiential learning to develop mastery of the three integrated dimensions of the California Next Generation Science Standards.

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* Criterion #1.2: Grade 7, Unit E: Bioengineering Design: SB pp.E25-30, TE pp.E59-78. The program contains examples of opportunities for students to use text, engage in discourse, and employ experiential learning to develop mastery of the three integrated dimensions of the California Next Generation Science Standards.
* Criterion #1.5: Grade 7, Ecology Activity 17: TE pp.233-241. The program’s activity is an exemplar for teacher resources that support three-dimensional learning and cross-curricular integration.

## 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 7, Geological Processes: SB pp.B59-62, TE pp.B143-156. The program contains exemplary evidence with the resources that suggests a variety of appropriate engineering design tasks using computational tools and software.
* Criterion #2.7: Grade 7, TE pp.192-193. The program provides resources guiding teachers to support students in making sense of phenomena with the writing frames and examples of evidence clarifying the CCCs for this activity.
* Criterion #2.2: Grade 6, TR pp.13-14, TR pp.43-46, TE p.D6, and TE pp.D27-28. The program contains examples of instructional resources supporting student questioning strategies as a tool to assess students’ knowledge and skills, promote student-to-student discourse, and guide student learning.
* Criterion #2.9: Grade 6, Unit E: From Cells to Organisms: Activity 2: Video on Bubonic Plague and Activity 8: Modeling Cell Structure and Function: Simulation: What Cells Do. The program’s activities contain exemplars where technology is used to investigate phenomena that would otherwise not be directly experienced within the classroom.

## 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 #3.10: Grade 7, Chemistry of Materials Activity 13, TE p.C165, SB p.C67. The program’s Impact of Plastics on Society activity is an exemplar of the variety of modes used to measure student performance including walking debate and oral presentation.
* Criterion #3.2: Grade 7, TR pp.188-189, TE p.A8. Question #2 within the program is an example of entry-level assessments for each unit provided to help teachers elicit students’ prior knowledge and preconceptions.
* Criterion #3.3: Grade 6, Body Systems: Activity 14: Evaluating Clinical Trials, TE pp.D181-190. The program’s activity is an exemplar of how teacher materials afford both learning and formative assessment opportunities with teacher guidance.
* Criterion #3.7: Grade 6, TR pp.225-236, TE pp.B177-191, SB pp.B81-85. The program contains exemplars of summative assessments designed to provide valid, reliable, and fair measures of students’ progress and attainment of three-dimensional learning after a period of instruction.

## 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 #4.2: Grade 6, TR pp.37-38; Grade 7, TR pp.37-38. The teacher resources include research-based strategies to address the needs of English learners consistent with the California English Language Development Standards.
* Criterion #4.3: Grade 6, TR pp.27-110; Grade 7, Unit E: Biomedical Engineering: Activity 4, TE p.44. The program contains instructional strategies to address the needs of students with disabilities in lessons and when forming assessments.

## 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 7, Unit A: Ecology, TR pp.168-170. The program contains an exemplar of estimated instructional time for each activity, lesson, chapter, and unit and is consistently represented throughout grade 7.
* Criterion #5.3: Grade 7, Modeling Earthquakes: Activity 9, TE pp.B135-139. The program’s activity shows an exemplary approach to guidance for checking for understanding and adjusting lessons for the three-dimensional learning of developing a model.
* Criterion #5.8: Grade 7, TR pp.270-280. The program contains an exemplar of the teacher resources including a planning guide describing the relationship between the components of the program and how to use all of the components.
* Criterion #5.10: Grade 6, SB p.A4, p.A10, p.A13, p.A18, p.A22, p.A28, and p.A35. The program contains an exemplar of student resources utilizing guiding questions to build the development of learning goals without explicitly stating those learning goals.
* Criterion #5.12: Grade 6, Unit Specific Resources, TR pp.164-166, pp.204-205, pp.240-241, pp.278-280, pp.316-319, and pp.348-349. The instructional resources include a list of materials required for each lesson.

## 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 | 6 | SB | A57 | Research the water quality in your community. Investigate… | Research the water quality in your community (see Appendix F). Investigate… | Mislabeled. |
| 2 | 6 | SB, Energy Unit, Activity 2 | B9 | What variable are you testing? | What variable are you testing (see Appendix E)? | Mislabeled. |
| 3 | 6 | TE | B34 | An independent variable is the controlled variable in an experiment or the variable that is not changed by other variables. | An independent variable is the manipulated variable in an experiment or the variable that is not changed by other variables. | Imprecise definition. |
| 4 | 7 | SB | A28 | **Biodiversity** is the variety of life at every level from genes to species to ecosystems. | **Biodiversity**, one measure of the overall health of an ecosystem,is the variety of life at every level from genes to species to ecosystems. | Imprecise definition. |
| 5 | 6, 7 | SB | G44, F41 | Independent variable: the controlled variable in an experiment. | Independent variable: the variable that is intentionally changed (manipulated) in an experiment. | Simple factual error. |
| 6 | 6, 7 | SB | G42, F40 | Dependent variable: the observed phenomenon that is being measured. | Dependent variable: the variable that changes in response to the changes in the independent variable that is often measured or counted in an experiment. | Simple factual error. |
| 7 | 6, 7 | Web page | Sepuplhs.org /pathways.html | All | Improve readability of learning pathways. Both screen and print versions’ font is too small to read for some readers. When magnification is increased, the reader cannot see the connections between the graphics. | Readability. |

## 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 | L.1. | 6 | SB PUP | A17 | The “Fox” logo is on the student’s shirt. | Remove or blur “Fox” logo. | Use of brand names/logos. |

California Department of Education, August 2018