



LAB-AIDS CORRELATIONS TO COMMON CORE ENGLISH /LANGUAGE ARTS¹ SCIENCE & TECHNICAL SUBJECTS²

SEPUP GRADES 6-8

The purpose of this document is to provide an overview of support for the 6-8 Common Core English/Language Arts standards relating to science and technical subjects in science materials produced by the Science Education for Public Understanding Program (SEPUP) and published and distributed by LAB-AIDS.

About the Common Core State Standards (CCSS)

The Common Core State Standards Initiative is a state-led effort coordinated by the National Governors Association Center for Best Practices (NGA Center) and the Council of Chief State School Officers (CCSSO). The standards were developed in collaboration with teachers, school administrators, and experts, to provide a consistent framework to prepare our children for college and workforce.

The standards are informed by the highest, most effective models from states across the country and countries around the world, and provide teachers and parents with a common understanding of what students are expected to learn. Consistent standards will provide appropriate benchmarks for all students, regardless of where they live. These standards define the knowledge and skills students should have within their K-12 education careers so that they will graduate high school able to succeed in entry-level, credit-bearing academic college courses and in workforce training programs.

About SEPUP

The Science Education for Public Understanding Program is based at the Lawrence Hall of Science, University of California, Berkeley, and develops science instructional materials for grades 6-12 with support from the National Science Foundation. The course materials are issue-oriented, inquiry-based, spiral, and support the 21st century design for school science programs as found in the *Next Generation Science Framework and Standards* (<http://www.lab-aids.com/correlations/Next%20Generation%20Science%20Framework.pdf>).

There are three SEPUP programs at the middle level:

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² <http://www.corestandards.org/the-standards/english-language-arts-standards/science-technical/grades-6-8/>

- Issues and Earth Science (IAES)
- Issues and Life Science (IALS)
- Issues and Physical Science (IAPS)

SEPUP materials are published and distributed by LAB-AIDS (www.lab-aids.com). To learn more about SEPUP, visit www.sepuplhs.org.

About SEPUP Literacy Support

The SEPUP science programs provide frequent opportunities for students to develop their language skills. Students are expected to read informational text and procedures, and the Analysis Questions, Designing Investigations activities, and science notebook entries all involve writing clearly. Students practice their oral language skills in role-plays, discussions, debates, and presentations. Teachers who are looking for ways for science classes to help students develop language literacy will find these exercises particularly helpful. SEPUP has developed and adapted many separate literacy support strategies for reading, writing, oral and written presentations, and media viewing, as shown in the following table.

Table 1. Literacy Strategies Embedded in SEPUP Middle Level Programs

Literacy Category	SEPUP Literacy Strategy
Supporting reading comprehension	Anticipation Guide Directed Activities Related to Text Listen, Stop, Write Three-Level Reading Guide
Enhancing student writing	Science Notebook Writing Guidelines Writing Frame Writing Review Research Project
Facilitating group discussion	Discussion Web Intra-act Oral Presentation Walking Debate
Synthesizing concepts and vocabulary	Categorization Activity Concept Map KWL Talking Drawing Venn Diagrams

For more information, see the *Diverse Learners* in the SEPUP Teacher’s Guides.

Table 2. Support in 6-8 SEPUP for ELA Key Ideas, by Program and Activity Number

ELA Key Ideas and Details	Support in SEPUP for ELA Key Idea
<p>READING</p> <p>RST.6-8.1. Cite specific textual evidence to support analysis of science and technical texts.</p>	<p>Readings with embedded “stop-to think” (STT) strategy:</p> <p>IAES – 5, 19, 29, 33, 38, 45, 58, 60, 66, 74, 78, 87, 92, 96</p> <p>IALS – 4, 6, 7, 15, 23, 25, 28, 42, 45, 57, 63, 79, 85, 97, 103</p> <p>IAPS – 13, 16, 21, 23, 31, 34, 41, 50, 57, 64, 71, 80, 93</p> <p>Three level reading guides:</p> <p>IAES – 15, 29, 78, 87</p> <p>IALS – 11, 25, 57, 83, 89, 101</p> <p>IAPS – 21, 23, 50, 57, 64, 84, 93</p> <p>Anticipation guides:</p> <p>IAES - 18, 44, 55, 62, 63, 74, 85, 96</p> <p>IALS – 1, 2, 4, 5, 7, 8, 16, 17, 30, 32, 33, 45, 46, 49, 51, 52, 77, 79, 84, 85, 87, 97,</p> <p>IAPS – 53, 55, 56, 63, 67, 71, 96</p>
<p>RST.6-8.2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.</p>	<p>Readings with embedded “stop-to think” (STT) strategy:</p> <p>IAES – 5, 19, 29, 33, 38, 45, 58, 60, 66, 74, 78, 87, 92, 96</p> <p>IALS – 4, 6, 7, 15, 23, 25, 28, 42, 45, 57, 63, 79, 85, 97, 103</p> <p>IAPS – 13, 16, 21, 23, 31, 34, 41, 50, 57, 64, 71, 80, 93</p> <p>Directed Activities Related to Text</p> <p>IAES – 5, 19, 34, 45, 53, 58</p> <p>IALS – 2, 6, 7, 12, 15, 23, 26, 28, 42, 45, 57, 58, 60, 63, 66, 69, 79, 85, 87, 94, 97, 98, 103</p> <p>IAPS – 2, 11, 13, 16, 32, 47, 80, 93</p>
<p>RST.6-8.3. Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.</p>	<p>All “Laboratory” type activities</p> <p>IAES – 3, 4, 6, 10, 13, 16, 17, 20, 46, 59, 61, 63, 67, 93</p> <p>IALS – 5, 8, 14, 16, 17, 19, 22, 27, 35, 36, 38, 39, 43, 47, 55, 62, 64, 70, 78, 80-83, 90,</p>

ELA Key Ideas and Details	Support in SEPUP for ELA Key Idea
	106 IAPS – 5-9, 14, 18, 19, 24-28, 35, 37, 38, 42, 43, 45, 46, 48, 51, 54, 59-61, 63, 65, 67-69, 74, 76-77, 79, 82, 90, 92, 94, 97, 98
Craft and Structure	
RST.6-8.4. Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 6–8 texts and topics</i> .	Categorization activities IAES – 6, 12, 17, 19, 30, 38, 51, 60 IALS – 15, 23, 45, 56, 80 IAPS – 35, 58, 89
RST.6-8.5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.	Writing Frame IAES – 11, 16, 36, 41, 55, 83 IALS – 10, 11, 14, 29, 32, 34, 48, 49, 53, 64, 67, 70, 71, 72, 81, 83, 87, 88, 89, 101, 105 IAPS – 33, 72, 88 Writing Review IAES - 84, 98 IALS - 10, 15, 32, 67 89
RST.6-8.6. Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.	Three level reading guides: IAES – 15, 29, 78, 87 IALS – 11, 25, 57, 83, 89, 101 IAPS – 21, 23, 50, 57, 64, 84, 95
Integration of Knowledge and Ideas	
RST.6-8.7. Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table).	Concept maps: IAES – 5, 6, 9, 15, 19, 29, 33, 60, 84 IALS – 86 IAPS – 34, 38, 83 Venn Diagrams: IAES – 3, 5, 42, 77 IALS – 23, 38, 43, 45, 57, 82, IAPS – 2, 47, 66, 93 Talking Drawings: IAES – 19, 38, 73, 90, 91 IALS – 15, 55, 62, 64, 79 IAPS – 39, 55, 84 Makes/interprets graphs: IAES – 27, 51, 52, 55, 70, 75, 93, 95 IALS – 3, 14, 17, 19, 30, 51, 54, 72, 77, 79,

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	84, 85 IAPS – 12, 22, 30, 75, 78, 83, 90, 92, 94
RST.6-8.8. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.	Contrast evidence vs opinion: IAES – 2, 36, 40, 41, 49, 57, 70, 77, 89, 98 IALS – 10, 20, 29, 32, 43, 47, 48, 53, 60, 67, 68, 70, 71, 75, 87, 88, 99, 100 IAPS – 6, 7, 11, 18, 24, 26, 29, 31, 33, 52, 62, 70, 90, 91, 92, 94-97
RST.6-8.9. Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.	“Talking it over” type activities: IAES – 2, 18, 23, 24, 36, 41, 50, 70, 71, 83, 98 IALS – 10, 34, 52, 72, 87, 89, 101, 108 IAPS – 11, 29, 33, 44, 47, 52, 73, 87, 99 Computer simulations/multimedia/”View & Reflect” type activities: IAES – 47, 48, 51, 64, 68, 76, 81 IALS – 2, 33, 50, 56 IAPS – 1, 89 In addition to the above citations, there are over 100 web links to support each SEPUP course on line at www.sepuplhs.org .
Range of Reading and Level of Text Complexity	
RST.6-8.10. By the end of grade 8, read and comprehend science/technical texts in the grades 6–8 text complexity band independently and proficiently.	Readings with embedded “stop-to think” (STT) strategy: IAES – 5, 19, 29, 33, 38, 45, 58, 60, 66, 74, 78, 87, 92, 96 IALS – 4, 6, 7, 15, 23, 25, 28, 42, 45, 57, 63, 79, 85, 97, 103 IAPS – 13, 16, 21, 23, 31, 34, 41, 50, 57, 64, 71, 80, 93
Text Types and Purposes	
<p>WRITING</p> <p>WHST.6-8.1. Write arguments to focus on discipline-specific content.</p> <ul style="list-style-type: none"> • 6-8.1A. Introduce claims • 6-8.1B. Support claims • 6-8.1C. Clarify relationships 	<p>IAES: 11, 16, 23, 36, 49, 55, 67, 70, 72, 83, 89, 98</p> <p>IALS: 5, 8, 9, 10, 14, 20, 29, 32, 34, 48, 49, 53, 64, 67, 71, 89, 101, 104, 105, 107, 108,</p>

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<ul style="list-style-type: none"> • 6-8.1D. Establish formal style • 6-8.1E. Conclusions 	<p>109</p> <p>IAPS: 3, 10, 11, 12, 27, 28, 29, 54, 64, 65, 66, 68, 72, 74, 77, 88, 89, 92, 93, 95, 97, 99</p>
<p>WHST.6-8.2. Write informative/explanatory texts, including scientific procedures, experiments or technical processes.</p> <ul style="list-style-type: none"> • 6.8.2A. Introduce, organize, and display • 6-8.2B. Develop topics • 6-8.2C. Transitions • 6-8.2D. Use precise language • 6-8.2E. Establish an objective tone • 6-8.2F. Concluding statement 	<p>IAES: 2, 5, 6, 11, 14, 16, 22, 38, 41, 48, 55, 62, 63, 66, 67, 72, 73, 78, 81, 84, 88, 91</p> <p>IALS: 2, 3, 4, 5, 8, 10, 14, 15, 16, 18, 23, 24, 26, 29, 31, 32, 37, 39, 43, 45, 46, 47, 48, 51, 53, 56, 59, 62, 63, 64, 65, 67, 70, 73, 74, 79, 81, 83, 85, 86, 88, 90, 91, 93, 94, 97, 99, 104, 105, 106, 109</p> <p>IAPS: 2, 3, 7, 8, 9, 10, 13, 15, 17, 54, 55, 57, 58, 65, 66, 71, 74, 75, 80, 92, 98</p>
<p>WHST.6-8.3. Incorporate narrative elements effectively into arguments and informative/explanatory texts. In science, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations that others can replicate them and (possibly) reach the same results.</p>	<p>IAES: 16, 55, 67, 72</p> <p>IALS: 5, 8, 14, 48, 64, 81, 83, 104, 105, 109</p> <p>IAPS: 3, 10, 54, 65, 66, 68, 74, 77, 98</p>
<p>WHST.6-8.4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p>	<p>IAES: 11, 16, 36, 41, 55, 83</p> <p>IALS: 10, 11, 14, 29, 32, 34, 48, 49, 53, 64, 67, 70, 71, 72, 81, 83, 87, 88, 89, 101, 105, 109</p> <p>IAPS: 88, 92, 98, 99</p>
<p>WHST.6-8.5. With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.</p>	<p>Addressed through use of science notebook throughout all units</p>
<p>WHST.6-8.6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas clearly and efficiently.</p>	<p>Addressed throughout the units using the science notebook</p>
<p>WHST.6-8.7. Conduct short research projects to answer a question (including a self-generated</p>	<p>IAES: 52</p>

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question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.	<p>IALS: 29, 31, 71, 73</p> <p>IAPS 92, 97, 99</p>
WHST.6-8.8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.	<p>IAES: 52, 89</p> <p>IALS: 2, 3, 9, 10, 29, 31, 71, 73</p>
WHST.6-8.9. Draw evidence from informational texts to support analysis, reflection, and research.	<p>IAES: 2, 11, 16, 23, 36, 49, 70, 83, 89, 98</p> <p>IALS: 2, 3, 9, 10, 20, 29, 32, 34, 49, 53, 67, 70, 71, 72, 87, 88, 89, 101, 106, 107, 108</p> <p>IAPS: 11, 12, 13, 27, 28, 29, 64, 72, 82, 88, 90, 91, 92, 94, 95, 96, 97</p>
Range of Writing	
WHST.6-8.10. Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.	Address throughout program in SEPUP writing activities