

Indiana Standards Alignment

Literacy in Science and Technical Subjects (2017)

Legend

•	The standard is clearly addressed by program activities.
-	This standard potentially could be addressed as of the program either by actions that the coach or teacher takes when working with the students or by conditions established by the program.

Standard	6-8		9-10			11-12		
	FTC CP	FTC Team	FTC CP	FTC Team	FRC Team	FTC CP	FTC Team	FRC Team
LST.1: LEARNING OUTCOME FOR LITERACY IN SCIENCE/TECHNICAL SUBJECTS Read and comprehend science and technical texts independently and proficiently and write effectively for a variety of discipline-specific tasks, purposes, and audiences								
	6-8.LST.1.1: Read and comprehend science and technical texts within a range of complexity appropriate for grades 6-8 independently and proficiently by the end of grade 8.			9-10.LST.1.1: Read and comprehend science and technical texts within a range of complexity appropriate for grades 9-10 independently and proficiently by the end of grade 10.			11-12.LST.1.1: Read and comprehend science and technical texts within a range of complexity appropriate for grades 11-CCR independently and proficiently by the end of grade 12.	
LST.2: KEY IDEAS AND TEXTUAL SUPPORT (READING) Extract and								
	6-8.LST.2.1: Cite specific textual evidence to		9-10.LST.2.1: Cite specific textual evidence to			11-12.LST.2.1: Cite specific textual evidence to support		

LST.3: STRUCTURAL ELEMENTS AND ORGANIZATION (READING)

Build understanding of science and technical texts, using knowledge of structural organization and author's purpose

<p>6-8.LST.3.1: 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 grades 6-8 texts and topics.</p>			<p>9-10.LST.3.1: 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 grades 9-10 texts and topics</p>			<p>11-12.LST.3.1: 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 grades 11-12 texts and topics.</p>			
<p>6-8.LST.3.2: 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.</p>			<p>9-10.LST.3.2: Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).</p>			<p>11-12.LST.3.2: Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.</p>			
<p>6-8.LST.3.3: Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.</p>			<p>9-10.LST.3.3: Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.</p>			<p>11-12.LST.3.3: Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved.</p>			

LST.4: SYNTHESIS AND CONNECTION OF IDEAS (READING)
 Build understanding of science and technical texts by synthesizing and connecting ideas and evaluating specific claims

6-8.LST.4.1:
 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).

9-10.LST.4.1:
 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words

11-12.LST.4.1:
 Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem..

6-8.LST.4.2:
 Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

9-10.LST.4.2:
 Assess the extent to which the reasoning and evidence in a text support the author's claim or a recommendation for solving a scientific or technical problem.

11-12.LST.4.2:
 Evaluate the hypotheses, data, analysis, and conclusions in a science or technical text, verifying the data when possible and corroborating or challenging conclusions with other sources of information.

6-8.LST.4.3:
 Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading

9-10.LST.4.3:
 Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support

11-12.LST.4.3:
 Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting

	a text on the same topic.		or contradict previous explanations or accounts				information when possible.			
LST.6: THE WRITING PROCESS (WRITING) Produce coherent and legible documents by planning, drafting, revising, editing, and collaborating with others	6-8.LST.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach; and edit to produce and strengthen writing that is clear and coherent, with some guidance and support from peers and adults.		9-10.LST.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach, focusing on addressing what is most significant for a specific purpose and audience; and edit to produce and strengthen writing that is clear and coherent.				11-12.LST.6.1: Plan and develop; draft; revise using appropriate reference materials; rewrite; try a new approach, focusing on addressing what is most significant for a specific purpose and audience; and edit to produce and strengthen writing that is clear and coherent.			
	6-8.LST.6.2: Use technology to produce and publish writing and present the relationships between information and ideas clearly and efficiently		9-10.LST.6.2: Use technology to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.				11-12.LST.6.2: Use technology to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.			

LST.7: THE RESEARCH PROCESS (WRITING)
Build knowledge about the research process and the topic under study by conducting short or more sustained research

<p>6-8.LST.7.1: Conduct short research assignments and tasks to answer a question (including a self-generated question), or test a hypothesis, drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration.</p>			<p>9-10.LST.7.1: Conduct short as well as more sustained research assignments and tasks to answer a question (including a self-generated question), test a hypothesis, or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>			<p>11-12.LST.7.1: Conduct short as well as more sustained research assignments and tasks to answer a question (including a self-generated question), test a hypothesis, or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</p>			
<p>6-8.LST.7.2: Gather relevant information from multiple sources, using search terms effectively; annotate sources; 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</p>			<p>9-10.LST.7.2: Gather relevant information from multiple authoritative sources, using advanced searches effectively; annotate sources; assess the usefulness of each source in answering the research question; synthesize and integrate information into the text</p>			<p>11-12.LST.7.2: Gather relevant information from multiple types of authoritative sources, using advanced searches effectively; annotate sources; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; synthesize and integrate information</p>			

	citation (e.g., APA or CSE).			selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation (e.g., APA or CSE).				into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation (e.g., APA or CSE).			
	6-8.LST.7.3: Draw evidence from informational texts to support analysis, reflection, and research.			9-10.LST.7.3: Draw evidence from informational texts to support analysis, reflection, and research.				11-12.LST.7.3: Draw evidence from informational texts to support analysis, reflection, and research.			