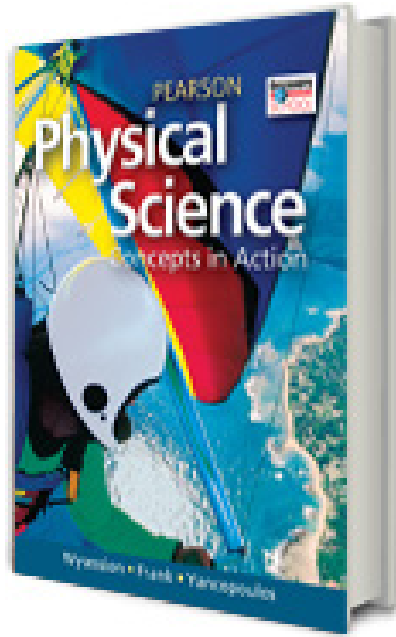


A Correlation of

# Physical Science Concepts in Action

©2011



To the

## Common Core Standards for Literacy in Science and Technical Subjects

Grades 9-12

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Grades 9-12**

**INTRODUCTION**

This document demonstrates how Pearson's *Physical Science: Concepts in Action © 2011* meets the Common Core Standards for Literacy in Science and Technical Subjects, grades 9-12. Correlation page references are to the Student and Teacher's Editions and cited at the page level.

*Physical Science: Concepts in Action* helps students make the important connection between the science they read and what they experience every day. Relevant content, lively explorations and a wealth of hands-on activities take students' understanding of science beyond the page and into the world around them.

**21<sup>st</sup> Century Skills**

Each chapter in *Physical Science* begins with an activity geared toward developing one or more 21st century skills. All of these activities task students to capture what they are learning in biology class and apply the knowledge to solving real-life problems in order to encourage productive, thoughtful members of the 21st century world.

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A Pearson exclusive, this is the most robust interactive lab available. A proven formula for reading success before during, and after every lesson enables students to fully understand key concepts.

**The Complete Interactive Textbook**

Available online and on CD-ROM. Audio of the full text read-aloud supports English language learners and reluctant readers. PresentationEXPRESS helps you create dynamic presentations with slides, videos, and participatory activities.

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<b>Common Core Standards for Literacy in Science &amp; Technical Subjects Grades 9-12</b>	<b>Physical Science Concepts in Action</b>
<b>Reading Standards for Literacy in Science and Technical Subjects 9-10</b>	
<b>Grades 9–10 students:</b>	
<b>Key Ideas and details</b>	
<b>RST.9-10.1.</b> Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.	<b>SE/TE:</b> 1, 4, 6, 8, 10, 11, 17, 19, 20, 25, 40, 43, 44, 46, 50, 51, 55, 57, 58, 70, 73, 74, 76, 79, 81, 86, 89, 91, 101, 103, 105, 110, 112, 116, 118, 128, 129, 134, 138, 140, 142, 145, 161, 162, 164, 167, 169, 172, 175, 177, 181, 193, 197, 198, 200, 202, 205, 207, 209, 213, 215, 217, 219, 229, 230, 232, 234, 236, 239, 243, 245, 247, 249, 264, 266, 269, 274, 276, 279, 280, 283, 284, 294, 297, 299, 301, 304, 305, 311, 315, 331, 334, 337, 345, 348, 357, 358, 360, 362, 364, 369, 373, 377, 379, 381, 382, 391, 393, 396, 397, 404, 413, 414, 416, 418, 420, 421, 424, 426, 429, 431, 433, 435, 449, 451, 452, 454, 457, 459, 464, 466, 475, 476, 478, 481, 483, 489, 490, 491, 492, 502, 503, 505, 507, 509, 510, 512, 515, 521, 533, 536, 537, 538, 540, 543, 544, 545, 548, 549, 551, 553, 559, 562, 572, 573, 577, 578, 583, 585, 589, 590, 592, 601, 603, 607, 609, 610, 613, 619, 622, 633, 636, 638, 639, 644, 646, 647
<b>RST.9-10.2.</b> Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.	<b>SE/TE:</b> xviii, 6, 11, 20, 24, 25, 36, 42, 44, 51, 55, 58, 66, 71, 74, 81, 91, 98, 105, 112, 118, 124, 129, 138, 145, 156, 160, 164, 169, 175, 181, 190, 198, 205, 209, 215, 219, 226, 234, 239, 245, 249, 260, 269, 273, 274, 280, 284, 290, 297, 301, 305, 313, 315, 326, 331, 339, 348, 354, 362, 369, 377, 382, 388, 392, 393, 397, 404, 410, 416, 420, 426, 433, 435, 444, 452, 459, 463, 466, 472, 478, 483, 491, 492, 498, 503, 507, 512, 521, 530, 538, 542, 545, 549, 553, 562, 568, 573, 575, 578, 585, 592, 598, 603, 607, 613, 622, 628, 633, 639, 647
<b>RST.9-10.3.</b> Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks attending to special cases or exceptions defined in the text.	<b>SE/TE:</b> 1, 18, 26, 46, 56, 60, 67, 79, 90, 92, 102, 117, 119, 128, 135, 150, 157, 167, 173, 184, 191, 196, 203, 214, 220, 227, 232, 238, 243, 248, 254, 265, 278, 285, 300, 304, 316, 327, 330, 349, 360, 365, 380, 383, 389, 401, 405, 411, 424, 429, 438, 450, 454, 467, 473, 476, 481, 493, 502, 505, 524, 544, 563, 585, 593, 606, 612, 623, 629, 632, 637, 648

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Common Core Standards for Literacy in Science & Technical Subjects Grades 9-12	Physical Science Concepts in Action
<b>Craft and Structure</b>	
<b>RST.9-10.4.</b> 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 9–10 texts and topics</i> .	<b>SE/TE:</b> 17, 20, 39, 45, 78, 79, 80, 109, 127, 132, 133, 134, 138, 147, 148, 149, 159, 166, 171, 172, 182, 183, 206, 210, 211, 212, 230, 246, 293, 295, 300, 306, 308, 310, 333, 345, 363, 365, 367, 368, 372, 378, 400, 415, 421, 425, 434, 446, 449, 463, 465, 477, 479, 500, 504, 574, 611, 612  <b>TE Only:</b> 2, 7, 14, 22, 38, 54, 68, 75, 84, 100, 108, 113, 126, 130, 139, 158, 165, 170, 176, 192, 199, 216, 228, 235, 240, 262, 272, 275, 282, 292, 298, 303, 328, 332, 342, 356, 390, 394, 412, 417, 427, 453, 462, 474, 486, 508, 514, 532, 539, 546, 550, 558, 570, 580, 588, 600, 604, 609, 618, 630, 635, 642
<b>RST.9-10.5.</b> Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., <i>force, friction, reaction force, energy</i> ).	<b>SE/TE:</b> 3, 7, 14, 22, 28, 38, 45, 51, 54, 58, 62, 68, 74, 75, 84, 94, 100, 108, 112, 113, 120, 126, 130, 139, 145, 152, 158, 164, 165, 169, 170, 176, 181, 186, 192, 199, 205, 206, 209, 212, 215, 216, 219, 222, 228, 234, 235, 239, 240, 245, 246, 256, 262, 269, 272, 274, 275, 280, 282, 286, 292, 298, 303, 304, 310, 315, 318, 319, 328, 332, 342, 350, 356, 362, 363, 372, 378, 384, 390, 394, 397, 400, 406, 412, 417, 420, 421, 427, 440, 446, 453, 462, 468, 474, 479, 483, 486, 494, 500, 503, 504, 508, 514, 521, 526, 532, 539, 546, 549, 550, 558, 562, 564, 570, 574, 578, 580, 585, 588, 594, 600, 604, 609, 618, 622, 624, 630, 633, 639, 642, 650

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<p><b>RST.9-10.6.</b> 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><b>SE/TE:</b> 12, 14, 20, 24, 37, 42, 52, 59, 71, 80, 81, 82, 99, 106, 109, 125, 146, 148, 160, 174, 175, 182, 195, 198, 210, 218, 250, 252, 261, 270, 273, 281, 295, 302, 306, 333, 337, 338, 340, 355, 367, 369, 370, 377, 392, 393, 398, 415, 416, 425, 426, 433, 436, 445, 448, 452, 458, 459, 460, 463, 477, 478, 484, 491, 499, 506, 507, 513, 522, 531, 535, 538, 542, 554, 556, 559, 569, 571, 575, 579, 586, 587, 599, 608, 611, 612, 613, 614, 616, 621, 640, 646</p> <p><b>TE Only:</b> 1, 3, 6, 8, 9, 10, 16, 18, 38, 43, 48, 50, 55, 58, 69, 72, 73, 75, 76, 79, 86, 89, 101, 104, 110, 112, 114, 116, 129, 134, 138, 143, 159, 165, 168, 169, 171, 177, 180, 191, 193, 197, 200, 201, 207, 208, 209, 213, 214, 216, 217, 229, 231, 234, 236, 237, 240, 243, 244, 248, 249, 251, 263, 264, 267, 272, 274, 283, 284, 291, 292, 294, 299, 300, 303, 307, 311, 315, 329, 330, 334, 336, 343, 344, 357, 358, 360, 361, 364, 365, 371, 373, 374, 379, 383, 389, 391, 394, 395, 401, 403, 411, 413, 414, 417, 423, 424, 427, 430, 437, 450, 451, 456, 457, 461, 464, 466, 473, 475, 480, 481, 482, 489, 490, 501, 502, 505, 508, 509, 510, 512, 515, 518, 524, 537, 541, 543, 544, 547, 548, 552, 553, 561, 572, 576, 577, 581, 584, 587, 588, 593, 601, 602, 605, 610, 612, 629, 631, 632, 633, 636, 638, 643, 644</p>

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<b>Common Core Standards for Literacy in Science &amp; Technical Subjects Grades 9-12</b>	<b>Physical Science Concepts in Action</b>
<b>Integration of Knowledge and Ideas</b>	
<b>RST.9-10.7.</b> 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.	<b>SE/TE:</b> 4, 14, 16, 17, 19, 20, 22, 23, 24, 47, 78, 79, 80, 85, 88, 109, 112, 117, 127, 134, 161, 171, 173, 175, 193, 194, 196, 197, 198, 200, 202, 203, 215, 217, 219, 235, 237, 238, 239, 240, 244, 245, 265, 266, 268, 273, 278, 280, 283, 297, 310, 311, 330, 333, 334, 345, 348, 365, 368, 375, 391, 413, 415, 422, 425, 426, 447, 448, 449, 457, 458, 477, 505, 535, 543, 607, 611
<b>RST.9-10.8.</b> 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.	<b>SE/TE:</b> 26, 59, 60, 92, 119, 150, 184, 220, 254, 281, 285, 302, 316, 349, 383, 405, 438, 467, 493, 513, 524, 563, 579, 583, 608, 623, 648
<b>RST.9-10.9.</b> Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.	<b>SE/TE:</b> 12, 21, 26, 37, 49, 52, 60, 82, 87, 92, 106, 109, 110, 111, 119, 150, 163, 184, 201, 210, 218, 220, 233, 250, 252, 254, 270, 277, 285, 291, 306, 314, 316, 335, 338, 340, 349, 366, 370, 383, 398, 402, 405, 434, 436, 438, 460, 465, 467, 484, 488, 493, 520, 524, 554, 556, 560, 563, 572, 586, 587, 591, 593, 614, 616, 620, 621, 623, 634, 640, 646, 648  <b>TE Only:</b> 8, 10, 18, 43, 48, 50, 55, 69, 72, 75, 76, 86, 104, 116, 138, 147, 168, 169, 177, 180, 195, 197, 200, 208, 213, 216, 231, 236, 237, 243, 244, 251, 264, 267, 272, 283, 284, 294, 299, 307, 311, 329, 334, 344, 357, 365, 367, 373, 374, 379, 391, 394, 403, 413, 423, 430, 437, 451, 456, 461, 464, 478, 480, 482, 490, 501, 508, 512, 515, 537, 538, 541, 547, 548, 553, 561, 576, 577, 581, 584, 587, 601, 610, 631, 636, 638, 643
<b>Range of Reading and Level of text Complexity</b>	
<b>RST.9-10.10.</b> By the end of grade 10, read and comprehend science/technical texts in the grades 9–10 text complexity band independently and proficiently.	<b>SE/TE:</b> 6, 11, 20, 25, 44, 51, 58, 74, 81, 91, 105, 112, 118, 129, 138, 145, 164, 169, 175, 198, 205, 209, 215, 219, 234, 239, 245, 249, 269, 274, 280, 284, 297, 301, 305, 315, 331, 337, 348, 362, 369, 377, 382, 393, 397, 404, 416, 420, 426, 435, 452, 459, 466, 478, 483, 492, 503, 507, 512, 521, 538, 545, 549, 553, 562, 573, 578, 585, 592, 603, 607, 622, 633, 639, 647

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<b>Common Core Standards for Literacy in Science &amp; Technical Subjects Grades 9-12</b>	<b>Physical Science Concepts in Action</b>
<b>Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects</b>	
<b>Grades 9–10 students:</b>	
<b>Text types and Purposes</b>	
<b>WHST.9-10.1.</b> Write arguments focused on <i>discipline-specific content</i> .	<b>SE/TE:</b> 107, 109, 129, 149, 271, 466, 553
<b>WHST.9-10.2.</b> Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	<b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647
<b>WHST.9-10.3.</b> (See note; not applicable as a separate requirement)	(See note; not applicable as a separate requirement)
<b>Production and distribution of Writing</b>	
<b>WHST.9-10.4.</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	<b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647
<b>WHST.9-10.5.</b> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	<b>SE/TE:</b> 109, 129, 492, 553, 557
<b>WHST.9-10.6.</b> Use technology, including the Internet, 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.	<b>SE/TE:</b> 53, 83, 109, 115, 129, 149, 211, 253, 271, 307, 313, 341, 371, 399, 461, 466, 485, 492, 519, 523, 553, 587, 617, 641
<b>Research to Build and Present Knowledge</b>	
<b>WHST.9-10.7.</b> Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	<b>SE/TE:</b> 53, 83, 107, 109, 115, 129, 149, 211, 253, 271, 307, 313, 341, 371, 399, 461, 466, 485, 492, 519, 523, 553, 587, 617, 641



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<p><b>WHST.9-10.8.</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.</p>	<p><b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647</p>
<p><b>WHST.9-10.9.</b> Draw evidence from informational texts to support analysis, reflection, and research.</p>	<p><b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647</p>
<p><b>Range of Writing</b></p>	
<p><b>WHST.9-10.10.</b> 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.</p>	<p><b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 107, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647</p>

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<b>Reading Standards for Literacy in Science and Technical Subjects</b>	
<b>Grades 11-12 students:</b>	
<b>Key Ideas and Details</b>	
<b>RST.11-12.1.</b> Cite specific textual evidence to support analysis of science and technical texts, attending to important distinctions the author makes and to any gaps or inconsistencies in the account.	<b>SE/TE:</b> 1, 4, 6, 8, 10, 11, 17, 19, 20, 25, 40, 43, 44, 46, 50, 51, 55, 57, 58, 70, 73, 74, 76, 79, 81, 86, 89, 91, 101, 103, 105, 110, 112, 116, 118, 128, 129, 134, 138, 140, 142, 145, 161, 162, 164, 167, 169, 172, 175, 177, 181, 193, 197, 198, 200, 202, 205, 207, 209, 213, 215, 217, 219, 229, 230, 232, 234, 236, 239, 243, 245, 247, 249, 264, 266, 269, 274, 276, 279, 280, 283, 284, 294, 297, 299, 301, 304, 305, 311, 315, 331, 334, 337, 345, 348, 357, 358, 360, 362, 364, 369, 373, 377, 379, 381, 382, 391, 393, 396, 397, 404, 413, 414, 416, 418, 420, 421, 424, 426, 429, 431, 433, 435, 449, 451, 452, 454, 457, 459, 464, 466, 475, 476, 478, 481, 483, 489, 490, 491, 492, 502, 503, 505, 507, 509, 510, 512, 515, 521, 533, 536, 537, 538, 540, 543, 544, 545, 548, 549, 551, 553, 559, 562, 572, 573, 577, 578, 583, 585, 589, 590, 592, 601, 603, 607, 609, 610, 613, 619, 622, 633, 636, 638, 639, 644, 646, 647
<b>RST.11-12.2.</b> Determine the central ideas or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.	<b>SE/TE:</b> xviii, 6, 11, 20, 24, 25, 36, 42, 44, 51, 55, 58, 66, 71, 74, 81, 91, 98, 105, 112, 118, 124, 129, 138, 145, 156, 160, 164, 169, 175, 181, 190, 198, 205, 209, 215, 219, 226, 234, 239, 245, 249, 260, 269, 273, 274, 280, 284, 290, 297, 301, 305, 313, 315, 326, 331, 339, 348, 354, 362, 369, 377, 382, 388, 392, 393, 397, 404, 410, 416, 420, 426, 433, 435, 444, 452, 459, 463, 466, 472, 478, 483, 491, 492, 498, 503, 507, 512, 521, 530, 538, 542, 545, 549, 553, 562, 568, 573, 575, 578, 585, 592, 598, 603, 607, 613, 622, 628, 633, 639, 647
<b>RST.11-12.3.</b> Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.	<b>SE/TE:</b> 1, 18, 26, 46, 56, 60, 67, 79, 90, 92, 102, 117, 119, 128, 135, 150, 157, 167, 173, 184, 191, 196, 203, 214, 220, 227, 232, 238, 243, 248, 254, 265, 278, 285, 300, 304, 316, 327, 330, 349, 360, 365, 380, 383, 389, 401, 405, 411, 424, 429, 438, 450, 454, 467, 473, 476, 481, 493, 502, 505, 524, 544, 563, 585, 593, 606, 612, 623, 629, 632, 637, 648

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<b>Craft and Structure</b>	
<b>RST.11-12.4.</b> 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><b>SE/TE:</b> 17, 20, 39, 45, 78, 79, 80, 109, 127, 132, 133, 134, 138, 147, 148, 149, 159, 166, 171, 172, 182, 183, 206, 210, 211, 212, 230, 246, 293, 295, 300, 306, 308, 310, 333, 345, 363, 365, 367, 368, 372, 378, 400, 415, 421, 425, 434, 446, 449, 463, 465, 477, 479, 500, 504, 574, 611, 612</p> <p><b>TE Only:</b> 2, 7, 14, 22, 38, 54, 68, 75, 84, 100, 108, 113, 126, 130, 139, 158, 165, 170, 176, 192, 199, 216, 228, 235, 240, 262, 272, 275, 282, 292, 298, 303, 328, 332, 342, 356, 390, 394, 412, 417, 427, 453, 462, 474, 486, 508, 514, 532, 539, 546, 550, 558, 570, 580, 588, 600, 604, 609, 618, 630, 635, 642</p>
<b>RST.11-12.5.</b> Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas.	<p><b>SE/TE:</b> 3, 7, 14, 22, 28, 38, 45, 51, 54, 58, 62, 68, 74, 75, 84, 94, 100, 108, 112, 113, 120, 126, 130, 139, 145, 152, 158, 164, 165, 169, 170, 176, 181, 186, 192, 199, 205, 206, 209, 212, 215, 216, 219, 222, 228, 234, 235, 239, 240, 245, 246, 256, 262, 269, 272, 274, 275, 280, 282, 286, 292, 298, 303, 304, 310, 315, 318, 319, 328, 332, 342, 350, 356, 362, 363, 372, 378, 384, 390, 394, 397, 400, 406, 412, 417, 420, 421, 427, 440, 446, 453, 462, 468, 474, 479, 483, 486, 494, 500, 503, 504, 508, 514, 521, 526, 532, 539, 546, 549, 550, 558, 562, 564, 570, 574, 578, 580, 585, 588, 594, 600, 604, 609, 618, 622, 624, 630, 633, 639, 642, 650</p>

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<p><b>RST.11-12.6.</b> 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>	<p><b>SE/TE:</b> 12, 14, 20, 24, 37, 42, 52, 59, 71, 80, 81, 82, 99, 106, 109, 125, 146, 148, 160, 174, 175, 182, 195, 198, 210, 218, 250, 252, 261, 270, 273, 281, 295, 302, 306, 333, 337, 338, 340, 355, 367, 369, 370, 377, 392, 393, 398, 415, 416, 425, 426, 433, 436, 445, 448, 452, 458, 459, 460, 463, 477, 478, 484, 491, 499, 506, 507, 513, 522, 531, 535, 538, 542, 554, 556, 559, 569, 571, 575, 579, 586, 587, 599, 608, 611, 612, 613, 614, 616, 621, 640, 646</p> <p><b>TE Only:</b> 1, 3, 6, 8, 9, 10, 16, 18, 38, 43, 48, 50, 55, 58, 69, 72, 73, 75, 76, 79, 86, 89, 101, 104, 110, 112, 114, 116, 129, 134, 138, 143, 159, 165, 168, 169, 171, 177, 180, 191, 193, 197, 200, 201, 207, 208, 209, 213, 214, 216, 217, 229, 231, 234, 236, 237, 240, 243, 244, 248, 249, 251, 263, 264, 267, 272, 274, 283, 284, 291, 292, 294, 299, 300, 303, 307, 311, 315, 329, 330, 334, 336, 343, 344, 357, 358, 360, 361, 364, 365, 371, 373, 374, 379, 383, 389, 391, 394, 395, 401, 403, 411, 413, 414, 417, 423, 424, 427, 430, 437, 450, 451, 456, 457, 461, 464, 466, 473, 475, 480, 481, 482, 489, 490, 501, 502, 505, 508, 509, 510, 512, 515, 518, 524, 537, 541, 543, 544, 547, 548, 552, 553, 561, 572, 576, 577, 581, 584, 587, 588, 593, 601, 602, 605, 610, 612, 629, 631, 632, 633, 636, 638, 643, 644</p>

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to the  
Common Core Standards for Literacy in Science and Technical Subjects  
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<b>Common Core Standards for Literacy in Science &amp; Technical Subjects Grades 9-12</b>	<b>Physical Science Concepts in Action</b>
<b>Integration of Knowledge and Ideas</b>	
<b>RST.11-12.7.</b> 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.	<b>SE/TE:</b> 1, 8, 13, 21, 23, 37, 49, 52, 67, 82, 87, 99, 107, 111, 125, 133, 148, 157, 163, 183, 191, 194, 201, 211, 227, 233, 253, 261, 263, 270, 277, 291, 307, 314, 327, 335, 341, 355, 366, 371, 376, 389, 399, 402, 411, 434, 437, 445, 461, 465, 473, 485, 487, 488, 499, 511, 520, 523, 531, 544, 557, 560, 569, 573, 577, 587, 591, 599, 617, 620, 629, 634, 641
<b>RST.11-12.8.</b> 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.	<b>SE/TE:</b> 26, 59, 60, 92, 119, 150, 184, 220, 254, 281, 285, 302, 316, 349, 383, 405, 438, 467, 493, 513, 524, 563, 579, 583, 608, 623, 648
<b>RST.11-12.9.</b> Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.	<b>SE/TE:</b> 12, 21, 26, 37, 49, 52, 60, 82, 87, 92, 106, 109, 110, 111, 119, 150, 163, 184, 201, 210, 218, 220, 233, 250, 252, 254, 270, 277, 285, 291, 306, 314, 316, 335, 338, 340, 349, 366, 370, 383, 398, 402, 405, 434, 436, 438, 460, 465, 467, 484, 488, 493, 520, 524, 554, 556, 560, 563, 572, 586, 587, 591, 593, 614, 616, 620, 621, 623, 634, 640, 646, 648  <b>TE Only:</b> 8, 10, 18, 43, 48, 50, 55, 69, 72, 75, 76, 86, 104, 116, 138, 147, 168, 169, 177, 180, 195, 197, 200, 208, 213, 216, 231, 236, 237, 243, 244, 251, 264, 267, 272, 283, 284, 294, 299, 307, 311, 329, 334, 344, 357, 365, 367, 373, 374, 379, 391, 394, 403, 413, 423, 430, 437, 451, 456, 461, 464, 478, 480, 482, 490, 501, 508, 512, 515, 537, 538, 541, 547, 548, 553, 561, 576, 577, 581, 584, 587, 601, 610, 631, 636, 638, 643
<b>Range of Reading and Level of Text Complexity</b>	
<b>RST.11-12.10.</b> By the end of grade 12, read and comprehend science/technical texts in the grades 11–12 text complexity band independently and proficiently.	<b>SE/TE:</b> 6, 11, 20, 25, 44, 51, 58, 74, 81, 91, 105, 112, 118, 129, 138, 145, 164, 169, 175, 198, 205, 209, 215, 219, 234, 239, 245, 249, 269, 274, 280, 284, 297, 301, 305, 315, 331, 337, 348, 362, 369, 377, 382, 393, 397, 404, 416, 420, 426, 435, 452, 459, 466, 478, 483, 492, 503, 507, 512, 521, 538, 545, 549, 553, 562, 573, 578, 585, 592, 603, 607, 622, 633, 639, 647

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<b>Common Core Standards for Literacy in Science &amp; Technical Subjects Grades 9-12</b>	<b>Physical Science Concepts in Action</b>
<b>Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects</b>	
<b>Grades 11–12 students:</b>	
<b>Text Types and Purposes</b>	
<b>WHST.11-12.1.</b> Write arguments focused on discipline-specific content.	<b>SE/TE:</b> 107, 109, 129, 149, 271, 466, 553, 777
<b>WHST.11-12.2.</b> Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.	<b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647
<b>WHST.11-12.3.</b> (See note; not applicable as a separate requirement)	(See note; not applicable as a separate requirement)
<b>Production and Distribution of Writing</b>	
<b>WHST.11-12.4.</b> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	<b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647
<b>WHST.11-12.5.</b> Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.	<b>SE/TE:</b> 109, 129, 492, 553, 557
<b>WHST.11-12.6.</b> Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information.	<b>SE/TE:</b> 53, 83, 109, 115, 129, 149, 211, 253, 271, 307, 313, 341, 371, 399, 461, 466, 485, 492, 519, 523, 553, 587, 617, 641
<b>Research to Build and Present Knowledge</b>	
<b>WHST.11-12.7.</b> Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.	<b>SE/TE:</b> 53, 83, 107, 109, 115, 129, 149, 211, 253, 271, 307, 313, 341, 371, 399, 461, 466, 485, 492, 519, 523, 553, 587, 617, 641

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<b>WHST.11-12.8.</b> Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information 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.	<b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647
<b>WHST.11-12.9.</b> Draw evidence from informational texts to support analysis, reflection, and research.	<b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647
<b>Range of Writing</b>	
<b>WHST.11-12.10.</b> 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.	<b>SE/TE:</b> 6, 11, 25, 44, 53, 86, 91, 105, 107, 109, 115, 118, 129, 138, 149, 169, 179, 181, 183, 205, 211, 215, 239, 249, 253, 271, 301, 305, 307, 313, 331, 341, 371, 375, 377, 382, 399, 404, 423, 435, 437, 461, 466, 485, 492, 512, 519, 523, 545, 553, 557, 573, 583, 587, 592, 603, 607, 617, 641, 647