



FOSS THIRD EDITION CORRELATION TO COMMON CORE STANDARDS

English Language Arts:
SPEAKING AND LISTENING

Grade 4

English Language Arts Standards » Reading: Speaking & Listening

Grade 4

Comprehension and Collaboration				
<p>CCSS.ELA-Literacy.SL.4.1</p>	<p>Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on Grade 4 topics and texts, building on others' ideas and expressing their own clearly.</p>	<p align="center">SB</p>	<p>Energy and Electromagnetism</p>	<p>All Grade 4 SRBs give students the opportunity to engage effectively in a range of collaborative discussions on grade 4 texts. Examples (collaborative whole-class or small group discussions around embedded and "Thinking about" questions): "Energy," pp. 13-21 (pp. 13, 15-17, 19-20, embedded questions; p. 21, "Thinking about" questions 1-3) "When Magnet Meets Magnet," pp. 36-42 (p. 42, q1-3) "Magnificent Magnetic Models," pp. 43-45 (p. 45, "Discuss Your Ideas" q1-3) "Electromagnets Everywhere," pp. 55-63 (p. 63, two embedded questions (What if current flowing in a wire did not produce a magnetic field? How would your life be different without electromagnets?) "Static Electricity," pp. 71-72 (p. 72, q1-2) "Throw a Little Light on Sight!" pp. 79-83 (p. 83, q1-4)</p>
			<p>Motion, Force, and Models</p>	<p>Examples: "Galileo and Pendulums," pp. 7-13 (p. 13, "Thinking about" question) "Potential and Kinetic Energy at Work," pp. 19-20 (p. 20, "Thinking about" question) "Coming to a Stop," pp. 21-26 (p. 24, embedded problem; p. 26, "Thinking about" questions 1-2) "Graphing Data," pp. 38-43 (p. 43, q1-7)</p>
			<p>Soils, Rocks, and Landforms</p>	<p>Examples: "What Is Soil?" pp. 3-5 (p. 3, title question; p. 5, "Thinking about" q1-2) "Mohs' Scale and Birthstones," pp. 41-44 (p. 43, sidebar question) "Identifying Minerals," pp. 45-49 (p. 48, q1-4)</p>
			<p>Environments</p>	<p>Examples: "Two Terrestrial Environments," pp. 3-12 (p. 12, q1-3) "Setting Up a Terrarium," pp. 13-15 (p. 15, "Thinking about" question) "Food Chains and Food Webs," pp. 35-41 (p. 41, q1-6) "What Happens When Ecosystems Change?" pp. 60-64 (p. 64, "Thinking about" question) "Darkling Beetles," pp. 96-99 (p. 99, "Thinking about" question)</p>

IG	Energy and Electromagnetism	<p>All Grade 4 FOSS IGs give students the opportunity to engage effectively in collaborative discussions, building on others' ideas and expressing their own clearly. "Wrap-Up/Warm-Up" steps involve one-on-one conversations with peer partners; "Reading in Science Resources/Discuss the reading" steps involve group conversations in which students build on one another's ideas; discussions of investigation procedures and results involve teacher-led conversations.</p> <p>Examples:</p> <p>Inv. 1, Part 1, p. 73, s3 (one-on-one; share observations with science partner)</p> <p>Inv. 1 Part 2, p. 85, 87, s7-8, 13-15 (teacher-led discussions with whole class and small groups)</p> <p>Inv. 1, Part 3, p. 93-96, s1-10 (small-group discussions to plan and implement investigation)</p> <p>Inv. 1, Part 4, p. 106, s14 (whole-class discussion to summarize session and review vocabulary)</p> <p>Inv. 2, Part 1, p. 127, s16 (Wrap-Up/Warm-Up; one-on-one)</p> <p>Inv. 2, Part 2, p. 130, 132, s2-3, 7-8 (small-group discussion to build circuits; generate and investigate circuit questions)</p> <p>Inv. 2, Part 4, p. 144, s6 (teacher-led small-group outdoor investigation)</p> <p>Inv. 3, Part 1, pp. 165-166, s10-12 (collaborative discussions with science partner)</p> <p>Inv. 3, Part 2, p. 172, s4-5 (small-group discussion)</p> <p>Inv. 3, Part 3, p. 185, s17-18 (whole-class discussions of grade 4 texts)</p> <p>Inv. 3, Part 4, p. 194, s16 (teacher-led whole-class discussion interpreting graph/force-distance relationship)</p> <p>Inv. 4, Part 1, p. 220-221, s5-7, 10 (small-group collaborative discussion to build electromagnet)</p> <p>Inv. 4, Part 2, p. 230, s11 (one-on-one teacher feedback on response sheets)</p> <p>Inv. 4 Part 3, pp. 237-241, s4-9, 15-18 (small-group collaborative discussion to build telegraph, create code, send long-distance message)</p> <p>Inv. 5, Part 1, p. 261-262, s8-10 (teacher-led instruction)</p> <p>Inv. 5, Part 2, pp. 270-273, s1-4, 7-10 (teacher-led whole class discussion of color and light)</p>
----	-----------------------------	--

	Motion, Force, and Models	<p>Examples:</p> <p>Inv. 1, Part 1, p. 71, s25 (Wrap-Up/Warm-Up; one-on-one with peer partner)</p> <p>Inv. 1, Part 2, p. 80, s17 (small-group discussion of observations)</p> <p>Inv. 1, Part 3, p. 87, s9 (collaborative discussion with science partner to make and test prediction)</p> <p>Inv. 2, Part 1, pp. 107-109, 110-111, s7-12, 13-14 (small-group discussions to test speed; teacher-led instruction)</p> <p>Inv. 2, Part 2, pp. 114-117, s3-5, 7-9 (small-group discussion around designing collision experiment, energy transfer experiment)</p> <p>Inv. 2, Part 3, pp. 127, 129, s13, 18 (one-on-one teacher feedback on response sheet; one-on-one Wrap-Up/Warm-Up with peer partner)</p> <p>Inv. 2, Part 4, pp. 133-135, 138-139, s2-5, 9-10 (small-group collaboration to design momentum experiment)</p> <p>Inv. 3, Part 1, pp. 155-156, s6, 9 (teacher-led whole-class discussions)</p> <p>Inv. 3, Part 2, p. 163, s8-11 (small-group investigation design)</p> <p>Inv. 3, Part 3, p. 173 (large-group discussion of grade 4 text)</p> <p>Inv. 4, Part 1, pp. 191-195, s3-25 (collaborative groups and conference groups to develop black-box models)</p> <p>Inv. 4, Part 3, pp. 210-213, s3-15 (engineering-group collaborative discussions; teacher-led sharing circle to fix or improve designs)</p>
	Soils, Rocks, and Landforms	<p>Examples:</p> <p>Inv. 1, Part 1, pp. 67-70, s8-10, 13, 17 (teacher-led whole class discussion)</p> <p>Inv. 1, Part 2, pp. 77, 79, s8, 15 (large-group collaborative discussion to create definitions of weathering terms; Wrap-Up/Warm Up, one-on-one with peer partner)</p> <p>Inv. 1, Part 3, p. 84, s5 (whole-class discussion to design investigation)</p> <p>Inv. 1, Part 4, p. 93, s3 (small-group discussion)</p> <p>Inv. 2, Part 1, pp. 115-116, 118, s7, 12 (teacher-led whole-class discussion)</p> <p>Inv. 2, Part 2, p. 124, 131, s1, 3, 20-21 (small-group brainstorming; whole-class collaborative discussion to plan investigation; small-group plan and implement investigation)</p> <p>Inv. 2, Part 3, p. 139, s12 (Wrap-Up/Warm-Up, one-on-one)</p> <p>Inv. 2, Part 4, pp. 144-145, s5-9 (teacher-led discussions)</p> <p>Inv. 3, Part 1, pp. 164-165, s9-10 (small-group discussion; teacher-led whole-class discussion)</p> <p>Inv. 3, Part 2, p. 175, s24 (Wrap-Up/Warm-Up; one-on-one)</p> <p>Inv. 3, Part 4, pp. 188-189, s2-7 (small-group collaborative discussions to sort and identify rocks and minerals)</p> <p>Inv. 4, Part 1, pp. 209-210, s2-3 (small-group collaborative discussion to create story or build concept map; discuss natural resources)</p> <p>Inv. 4, Part 3, pp. 224-226, s2, 9-10 (whole-class discussion to brainstorm; teacher-led whole-class discussion of observations and reflections)</p>

	Environments	<p>Examples:</p> <p>Inv. 1, Part 1, p. 76, s11 (small-group collaborative discussion to design experiment)</p> <p>Inv. 1, Part 2, pp. 86-87, 91, 93, s3, 5-6, 26-27, 32 (teacher-led discussion of environmental factors; Wrap-Up/Warm-Up, one-on-one with peer partner)</p> <p>Inv. 1, Part 3, pp. 100, 101, s9, 11 (teacher-led whole-class collaborative discussion on sorting litter critters; small group discussion on adding critters to terrariums)</p> <p>Inv. 2, Part 1, p. 123, s1 (small-group and whole-class discussion of living and nonliving factors; notebook sheet 8)</p> <p>Inv. 2, Part 2, pp. 131-132, s4-5 (small-group collaborative discussion to find and report on feeding relationships)</p> <p>Inv. 2, Part 3, p. 146, s22-23 (whole-class discussion on grade 4 text)</p> <p>Inv. 2, Part 4, pp. 151-152, 156, s2, 7, 19 (small-group collaborative discussion to build marine food chains and food webs; Wrap-Up, group discussion of big ideas from investigation)</p> <p>Inv. 3, Part 1, pp. 178-179, s6-9 (teacher-guided discussion to design and set up controlled experiment)</p> <p>Inv. 3, Part 2, p. 186, s8 (small-group collaborative discussion to build Mono Lake food web)</p> <p>Inv. 3, Part 3, pp. 194, 197, s4, 13 (small-group collaborative discussion to formulate and test prediction; Wrap-Up/Warm-Up, one-on-one with peer partner)</p> <p>Inv. 3, Part 4, p. 203, s12 (teacher-led discussion of population data)</p> <p>Inv. 4, Part 1, pp. 232-234, 235-237, s17-26, 31-43 (small-group discussion to design and carry out experiment; teacher-led class discussions of observations)</p> <p>Inv. 4, Part 2, p. 248, s18 (Wrap-Up/Warm-Up; one-on-one with peer partner)</p>
TR	Energy and Electromagnetism Motion, Force, and Models Soils, Rocks, and Landforms Environments	<p>Same citation for ALL THREE Grade 4 FOSS Teacher Resources.</p> <p>Science-Centered Language Development chapter, pp. 6-11</p> <p>Science Notebooks in Grades 3-6 chapter, pp. 12-14, 18-21, 22-25</p>

<p>CCSS.ELA-Literacy.SL.4.2</p>	<p>Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.</p>	<p>SB</p>	<p>Energy and Electromagnetism</p>	<p>All Grade 4 SRBs give students the opportunity to paraphrase portions of a text or information presented visually and orally (in text). Examples: "Electricity," pp. 8-12 "Electricity Creates Magnetism," pp. 50-52 (p. 52, q1-3) "Electromagnets Everywhere," pp. 55-63 (p. 63, q1-3) "Light Interactions," pp. 73-78 (p. 78, q1-5)</p>
			<p>Motion, Force, and Models</p>	<p>"What Causes Change of Motion?" pp. 3-6 (p. 6, q1-3) "Coming to a Stop," pp. 21-26 (p. 26, q1-2) "Concussion Discussion," pp. 27-33 (p. 33, q1-2)</p>
			<p>Soils, Rocks, and Landforms</p>	<p>"Erosion and Deposition," pp. 9-14 (p. 14, q1-2)</p>
			<p>Environments</p>	<p>"Two Terrestrial Environments," pp. 3-12 (p. 12, q1-3) "Amazon Rain Forest Journal," pp. 18-26 (p. 26, q2) "Monterey Bay National Marine Sanctuary," pp. 46-49 (p. 49, q1-3) "How Organisms Depend on One Another," pp. 87-89 (p. 89, q1-3)</p>
			<p>IG</p>	<p>Energy and Electromagnetism</p>

	Motion, Force, and Models	<p>Inv. 1, Part 1, pp. 64-67, 71, s2-7, 24 (paraphrase information from video clips and presented orally; from text)</p> <p>Inv. 2, Part 2, p. 119, s15 (paraphrase information from text)</p> <p>Inv. 2, Part 3, p. 126, s8 (procedure information from video)</p> <p>Inv. 2, Part 4, p. 138, s14 (paraphrase text)</p> <p>Inv. 3, Part 1, p. 157, s14-15 (video)</p> <p>Inv. 3, Part 2, p. 166, s18 (paraphrase text)</p> <p>Inv. 4, Part 1, p. 198, s31 (paraphrase text)</p> <p>Inv. 4, Part 2, p. 205, s10 (bullets 2-3, paraphrase text)</p>
	Soils, Rocks, and Landforms	<p>Inv. 1, Part 1, p. 71, s20 (paraphrase text)</p> <p>Inv. 1, Part 3, pp. 88-89, s19, 22 (paraphrase information from text, video)</p> <p>Inv. 2, Part 1, p. 120, s19 (paraphrase text)</p> <p>Inv. 2, Part 4, p. 146, s11 (paraphrase text)</p> <p>Inv. 3, Part 1, p. 166, s15 (paraphrase text)</p> <p>Inv. 3, Part 4, pp. 191-193, s15, 17 (paraphrase text, video)</p> <p>Inv. 4, Part 1, pp. 210-211, s5 (paraphrase information from video)</p>
	Environments	<p>Inv. 1, Part 1, p. 78, s17 (paraphrase text)</p> <p>Inv. 1, Part 3, pp. 102-103, s13</p> <p>Inv. 2, Part 1, p. 127, s20</p> <p>Inv. 2, Part 2, pp. 135-136, s18, 20</p> <p>Inv. 2, Part 4, pp. 154-155, s15, 17</p> <p>Inv. 3, Part 1, p. 181, s15</p> <p>Inv. 3, Part 4, p. 205, s18</p> <p>Inv. 4, Part 1, pp. 238-239, s47, 49, 51</p> <p>Inv. 4, Part 2, p. 248, s17</p> <p>Inv. 4, Part 3, pp. 251-252, s2-5 (paraphrase information from video)</p>
TR	<p>Energy and Electromagnetism</p> <p>Motion, Force, and Models</p> <p>Soils, Rocks, and Landforms</p> <p>Environments</p>	<p>Same citation for ALL THREE Grade 4 FOSS Teacher Resources.</p> <p>Science-Centered Language Development chapter, pp. 6-11, 23-29</p> <p>Science Notebooks in Grades 3-6 chapter, pp. 18-21, 24 (RE: making sense of data and next steps, but NOT specifically about information presented via text read aloud)</p>

<p>CCSS.ELA-Literacy.SL.4.3</p>	<p>Identify the reasons and evidence a speaker provides to support particular points.</p>	<p>SB</p>	<p>Energy and Electromagnetism</p>	<p>Grade 4 SRBs may give students the opportunity to identify the reasons and evidence a speaker/narrator provides if SRBs are listened to on FOSSweb. (Otherwise, there is no “speaker.”) Examples: “Throw a Little Light on Sight!” pp. 79-83 (p. 83, q1-4; “Think about” questions elicit reasons and evidence)</p>
			<p>Motion, Force, and Models</p>	<p>“Concussion Discussion,” pp. 27-33 (opportunity to identify evidence of dangers of concussions; reasons for safety precautions and equipment) “Creative Solutions,” pp. 60-68 (opportunity to identify reasons behind inventions [problem/solution])</p>
			<p>Soils, Rocks, and Landforms</p>	<p>“It Happened So Fast!” pp. 22-33 (opportunity to identify reasons for events described in text) “Monumental Rocks,” pp. 54-58 (p. 54, embedded question; opportunity to identify reasons for building with rock)</p>
			<p>Environments</p>	<p>“Human Activities and Aquatic Ecosystems,” pp. 42-45 (p. 45, q1-2, opportunity) “The Mono Lake Story,” pp. 53-59 (p. 59, q1-2, opportunity) “‘What Happens When Ecosystems Change?’” pp. 60-64 (p. 64, “Thinking about” question, opportunity) “Animals from the Past,” pp. 90-95 (p. 95, q1-4, opportunity to identify evidence of animals from past, reasons for extinction)</p>
		<p>IG</p>	<p>Energy and Electromagnetism</p>	<p>Inv. 1, Part 4, pp. 102-106, s1, 5, 11, 13, 15 (students identify evidence of presence of energy from investigation and text; but NOT evidence provided by speaker) Inv. 2, Part 1, pp. 124-125, s5-10 (students identify reasons why bulbs are dim, from investigation and speaker/teacher) Inv. 2, Part 4, p. 146, s12-13 (opportunity to identify reasons for using alternative sources of energy and conserving energy, from text) Inv. 2, p. 149, Science and Engineering Extension, Invite and electrician to class (opportunity to identify reasons and evidence in listening to classroom speaker) Inv. 3, Part 2, p. 173, s6 (students identify reasons for magnetic interactions, from class discussion and teacher instruction) Inv. 3, Part 3, p. 183, s12 (students identify reasons for effects of magnetic fields from class demonstrations and teacher instruction) Inv. 5, Part 2, p. 275, s16 (students identify reasons elicited in q1-4)</p>
			<p>Motion, Force, and Models</p>	<p>Inv. 3, Part 2, p. 161, s2 (reasons for outcomes, but NOT provided by speaker)</p>

	Soils, Rocks, and Landforms	<p>Inv. 2, Part 2, pp. 129-130, 132, s16, 25</p> <p>Inv. 2, Part 3, pp. 136-138 s3, 6-9 (identify evidence of weather, erosion, deposition, using information from speaker/teacher and observations)</p> <p>Inv. 3, Part 2, pp. 172-175, s11-18, 25 (identify evidence of hardness using scratch test and information from speaker/teacher and SRB)</p> <p>Inv. 3, Part 3, pp. 182-183, s13-17 (identify reasons and evidence for mineral identification from SRB, speaker/teacher, and investigation)</p> <p>Inv. 3, Part 4, pp. 189-190, s8-12 (identify reasons and evidence for mineral identification from investigation, small-group/whole-class discussion, teacher/speaker instruction)</p>
	Environments	<p>Inv. 2, Part 3, pp. 144-145, s17 (identify reasons/evidence from investigation data and classroom instruction)</p> <p>Inv. 3, Part 2, pp. 186-187, s7, 10 (identify reasons and evidence from reading)</p> <p>Inv. 3, Part 4, p. 204, s14</p> <p>Inv. 4, Part 2, p. 248, s17</p>
TR	Energy and Electromagnetism	<p>Same citation for ALL THREE Grade 4 FOSS Teacher Resources.</p> <p>Science-Centered Language Development chapter, pp. 6-11</p> <p>Science Notebooks in Grades 3-6 chapter, pp. 12-14, 18-21, 22-25</p>
	Motion, Force, and Models	
	Soils, Rocks, and Landforms	
	Environments	

Presentation of Knowledge and Ideas					
CCSS.ELA-Literacy.SL.4.4	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	SB	Energy and Electromagnetism	All Grade 4 SRBs give students the opportunity to report on a text or retell a story, using appropriate facts and descriptive details and speaking clearly at an understandable pace. Examples: "Edison Sees the Light," pp. 3-7 (p. 7, q1-3) "Make a Magnetic Compass," pp. 46-49 (opportunity to report on topic/text or recount procedure: making compass) "Light Interactions," pp. 73-78 (p. 78, q1-5)	
			Motion, Force, and Models	"Concussion Discussion," pp. 27-33 (p. 33, q1-2; report on topic from text) "Graphing Data," pp. 38-43 (p. 43, q1-7; opportunity to report on topic from text) "Beachcombing Science," pp. 52-54 (opportunity to retell story)	
			Soils, Rocks, and Landforms	"Erosion and Deposition," pp. 9-14 (p. 14, q1-2) "Where Do Rocks Come From?" pp. 34-40 (opportunity to report on text by answering title question) "It Happened So Fast!" pp. 22-33 (opportunity to retell story of one of Earth-changing events reported) "Monumental Rocks," pp. 54-58 (pp. 55, 56, 57; opportunity to report on text by answering sidebar questions)	
			Environments	"Amazon Rain Forest Journal," pp. 18-26 (p. 26, q1-3, report on text) "Ecosystems," pp. 32-34 (p. 34, q1-3, report on text)	
			IG	Energy and Electromagnetism	Inv. 1, Part 1, p. 79, s19 (opportunity to report on text) Inv. 1, Part 2, p. 88, s17 (opportunity to recount outdoor experience) Inv. 3, Part 5, pp. 199-200, s9-11 (opportunity to recount outdoor experience) Inv. 4, Part 2, p. 231, s13 (bullets 1-3, report on text) Inv. 4, Part 3, p. 236, s1 (report on topic: communication devices) Inv. 5, Part 1, p. 263, s13 (recount experience/challenge)
				Motion, Force, and Models	Inv. 1, Part 3, p. 88, s14 (report on text; recount experience of designing experiment) Inv. 1, p. 91, Language Extension, Research pendulum history (report on topic) Inv. 2, Part 2, pp. 117-118, s10 (recount experience; analyze data) Inv. 2, Part 3, p. 128, s15, 17 (report on texts) Inv. 2, Part 4, pp. 135-136, s8 (volunteers recount/summarize group findings from investigation) Inv. 4, Part 2, p. 205, s10 (bullet 1, retell story from text) Inv. 4, Part 3, pp. 213-214, s17, 19-22 (report on work of engineer; report on text; report on inventor)

	Soils, Rocks, and Landforms	<p>Inv. 1, Part 3, p. 88, s19 (opportunity to report on text)</p> <p>Inv. 2, Part 1, p. 114, s1 (opportunity to report on topic from previous investigation)</p> <p>Inv. 2, Part 1, p. 116, s8 (report on investigation)</p> <p>Inv. 2, Part 2, p. 131, s23 (recount experiences/investigation)</p> <p>Inv. 2, Part 4, p. 144, s4 (recount experiences/activate prior knowledge)</p> <p>Inv. 3, Part 4, p. 189, s8 (report on topic: mineral identification and reasons)</p> <p>Inv. 4, Part 1, pp. 208, 212, s1, 9-12 (report on topic [review of earth materials]; report on texts)</p> <p>Inv. 4, Part 3, p. 219, s1 (recount experience [making concrete])</p>
	Environments	<p>Inv. 1, Part 3, pp. 102-103, s13 (opportunity to report on text)</p> <p>Inv. 2, Part 1, p. 123, s2 (report on aquatic environments)</p> <p>Inv. 2 p. 157, Language Extension, Describe aquatic environments (opportunity to report on topic)</p> <p>Inv. 3, Part 2, p. 190, s19 (report on topic/focus question)</p> <p>Inv. 3, Part 3, p. 197, s12 (opportunity to report on text)</p> <p>Inv. 3, Part 4, p. 201, s1 (recount experiences/previous investigations)</p> <p>Inv. 3, p. 211, Science Extension, Evaluate accuracy of advertising (opportunity to report on topic)</p> <p>Inv. 4, Part 1, p. 229, s1 (recount experiences)</p> <p>Inv. 4, Part 1, p. 238, s47 (report on text/scientist)</p> <p>Inv. 4, Part 3, p. 251. s1 (report on text previously read)</p> <p>Inv. 4, p. 254, Language Extension, Keep an environmental-news bulletin board (report on topic)</p>
TR	Energy and Electromagnetism	<p>Same citation for ALL THREE Grade 4 FOSS Teacher Resources.</p> <p>Science-Centered Language Development chapter, pp. 6-11</p> <p>Science Notebooks in Grades 3-6 chapter, pp. 3, 9</p>
	Motion, Force, and Models	
	Soils, Rocks, and Landforms	
	Environments	

CCSS.ELA-Literacy.SL.4.5	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	SB	Energy and Electromagnetism	NA
			Motion, Force, and Models	NA
			Soils, Rocks, and Landforms	NA
			Environments	NA
		IG	Energy and Electromagnetism	Grade 4 FOSS IGs and notebook sheets give students opportunities to add visual displays to notebook presentations in the form of drawings, diagrams, charts, graphs, graphic organizers, and artifacts. Examples: Inv. 1, Part 3, pp. 94-95, s5, 8 (visual display: T-table for presentation of data; notebook sheet 4) Inv. 1, p. 109, Language extension, Make a poster Inv. 2, Part 2, p. 131, s4 (visual display: circuit designs) Inv. 2, Part 3, pp. 138-139, s5-8 (visual display: string of lights, for demonstration) Inv. 3, Part 4, pp. 192-193, s12-14 (visual display: graph) Inv. 4, Part 1, pp. 221-223, s8, 10, 13, 15 (visual display: drawing)
			Motion, Force, and Models	Inv. 1, Part 2, p. 74, 77-78, s4, 10-11 (visual displays: data table [notebook sheet 2]; T-table [notebook sheet 3]) Inv. 1, Part 3, pp. 84-86, s1-5 (visual display: two-coordinate graph) Inv. 2, Part 2, p. 118, s12 (visual display: diagram) Inv. 3, Part 2, p. 164, s13 (visual display: graph) Inv. 3, Part 3, p. 171, s9-10 (visual display: graph) Inv. 4, Part 1, pp. 192-195, s6-8, 11, 14, 16-17, 21-23 (drawings of models; physical models) Inv. 4, Part 3, pp. 211, 213, s5, 18 (drawings, engineering design)
			Soils, Rocks, and Landforms	Inv. 1, Part 2, p. 76, s6 Inv. 1, Part 3, p. 87, s15 (notebook sheet 6) Inv. 2, Part 1, pp. 115-116, s5, 7 (notebook sheet 9) Inv. 2, Part 2, p. 128, s13 Inv. 2, Part 3, pp. 181-183, s11-12, 16-17 (table; notebook sheet 19) Inv. 4, Part 3, pp. 224-225, s4-5 (T-table)
			Environments	Inv. 1, Part 2, pp. 88-89, 92, s9, 16, 30 (visual displays: drawings, environment map; notebook sheets 3-4) Inv. 1, Part 3, pp. 99, 101, s6, 10 (Critter Replicator, notebook sheets 6-7) Inv. 2, Part 2, pp. 133-134, s10, 14 (food chain and food web diagrams; notebook sheet 10) Inv. 2, Part 3, pp. 141-144, s3, 8-16 (recording table; notebook sheet 12) Inv. 2, Part 4, p. 153, s10 (food web; notebook sheet 13) Inv. 3, Part 2, pp. 185, 188, s3, 13-14 (individual and class chart) Inv. 4, Part 2, p. 246, s10-11 (plant species map)

TR	Energy and Electromagnetism	<p>Same citation for ALL THREE Grade 4 FOSS Teacher Resources.</p> <p>Science-Centered Language Development chapter, pp. 12-15, 18-20, 33</p> <p>Science Notebooks in Grades 3-6 chapter, pp. 2-4, 7, 9, 11, 15-17, 20 (visual displays, NOT audio recordings)</p>
	Motion, Force, and Models	
	Soils, Rocks, and Landforms	
	Environments	

<p>CCSS.ELA-Literacy.SL.4.6</p>	<p>Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 here for specific expectations.)</p>	<p>SB</p>	<p>Energy and Electromagnetism</p>	<p>Differentiating between contexts that call for formal English versus informal discourse not addressed (NA) in SRBs. All Grade 5 SRBs give students the opportunity to use formal English when appropriate to task and situation. Examples: "Series and Parallel Circuits," pp. 22-27 (p. 25, subheading question; p. 27, "Thinking about" questions 1-3; use formal English when answering/presenting ideas) "Electromagnets Everywhere," pp. 55-63 (p. 63, q1-3; opportunity to use formal English when answering/presenting ideas) "Static Electricity," pp. 71-72 (p. 72, q1-2; formal English when answering/presenting ideas)</p>
			<p>Motion, Force, and Models</p>	<p>"Galileo and Pendulums," pp. 7-13 (p. 13, "Thinking about" question; opportunity to use informal discourse in small group discussion to design controlled experiment) "Potential and Kinetic Energy at Work," pp. 19-20 (p. 20, "Thinking about" question; opportunity to use formal English when presenting ideas)</p>
			<p>Soils, Rocks, and Landforms</p>	<p>"Erosion and Deposition," pp. 9-14 (p. 14, q1-2; present ideas)</p>
			<p>Environments</p>	<p>"Freshwater Environments," pp. 27-31 (p. 31, q1-3, present ideas) "Ecosystems," pp. 32-34 (p. 34, q1-3, present ideas) "Range of Tolerance," pp. 85-86 (p. 86, "Thinking about" question, present ideas)</p>
		<p>IG</p>	<p>Energy and Electromagnetism</p>	<p>Differentiating contexts not addressed. Following are examples of opportunities to use formal English when appropriate (e.g., when presenting ideas). Inv. 1 Part 1, p. 76, s13 (opportunity to use formal English to discuss circuit principles) Inv. 1, Part 2, p. 90, s23 (share notebook entries and response sheets) Inv. 1, Part 3, p. 97, s13 (review vocabulary) Inv. 2, Part 1, p. 126, s12 (propose ideas in form of question) Inv. 2, Part 2, p. 134, s15 (opportunity when discussing text) Inv. 2, Part 4, p. 147, s14 (opportunity in Wrap-Up) Inv. 3, Part 4, p. 191, s7 (opportunity; sentence frames) Inv. 3, Part 5, p. 198, s1 (opportunity; review magnetic interactions) Inv. 5, Part 1, pp. 263, 267, s14, 23 (opportunity when describing how light travels)</p>

	Motion, Force, and Models	<p>Inv. 1, Part 1, pp. 69-70, s17 (suggesting variables)</p> <p>Inv. 1, Part 2, p. 78, s13 (extracting relationship from data)</p> <p>Inv. 1, Part 3, pp. 86-87, s7 (compare graphs)</p> <p>Inv. 2, Part 1, p. 107, s6 (share discoveries)</p> <p>Inv. 2, Part 2, p. 118, s12 (discuss ideas and compose answer to focus question; sentence frame)</p> <p>Inv. 2, Part 3, pp. 126-127, s10 (present ideas; sentence frame)</p> <p>Inv. 2, Part 4, p. 138, s13 (offer explanations)</p> <p>Inv. 3, Part 2, pp. 164-165, s14 (discuss findings)</p> <p>Inv. 4, Part 1, p. 196, s27 (informal versus accurate vocabulary in discussing process of developing model)</p> <p>Inv. 4, Part 2, p. 203, s5-6 (present ideas)</p> <p>Inv. 4, Part 3, p. 213, s17 (report on work of engineer)</p>
	Soils, Rocks, and Landforms	<p>Inv. 1, Part 2, p. 78, s11 (explain observations)</p> <p>Inv. 1, Part 4, p. 93, s1 (present ideas)</p> <p>Inv. 2, Part 2, p. 126, 131, s6, 23 (make comparisons; build vocabulary; describe investigation [sentence frames])</p> <p>Inv. 3, Part 3, p. 180, s8 (share observation notes; present ideas)</p> <p>Inv. 4, Part 2, p. 219, s10, 11 (present ideas; recount steps)</p>
	Environments	<p>Inv. 1, Part 1, pp. 79-80, s19, 21 (present ideas about life cycle)</p> <p>Inv. 1, Part 2 p. 91, s24 (present ideas about reading)</p> <p>Inv. 2, Part 1, pp. 125-126, s12, 16-17 (present ideas)</p> <p>Inv. 2, Part 2, p. 131, s2 (present ideas)</p> <p>Inv. 3, Part 1, p. 178, s4 (present ideas)</p> <p>Inv. 3, Part 2, p. 189, s15-17 (discuss data, results; draw conclusions)</p> <p>Inv. 4, Part 1, p. 231, s12 (make predictions)</p>
TR	Energy and Electromagnetism	<p>Same citation for ALL THREE Grade 4 FOSS Teacher Resources.</p> <p>Science-Centered Language Development chapter, pp. 5, 6-11, 12, 18-20 (sentence frames), 31, 33, 35</p> <p>Science Notebooks in Grades 3-6 chapter, pp. 7, 10, 12-14, 15, 19-20, 22</p>
	Motion, Force, and Models	
	Soils, Rocks, and Landforms	
	Environments	

CCSS.ELA-Literacy.SL.4.7	No Standard for Grade 4	
CCSS.ELA-Literacy.SL.4.8	No Standard for Grade 4	
CCSS.ELA-Literacy.SL.4.9	No Standard for Grade 4	
CCSS.ELA-Literacy.SL.4.10	No Standard for Grade 4	