

**A Correlation of the STC PROGRAM™ with
The New York City
K-8 Science Performance Standards**

Prepared by

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The STC PROGRAM™ is made up of 2 research-based, inquiry-centered curriculums:

- Science and Technology for Children® (STC®) for grades K–6; and
- Science and Technology Concepts for Middle Schools™ (STC/MS™) for grades 6–8

This document gives a quick visual guide to the alignment of selected STC® units with the New York City Science Performance Standards, grades K–8. Although each STC® unit was developed for use at a specific grade level, there is some flexibility in grade placement. Recommended grade ranges are indicated in the chart below.

Carolina publishes additional units in the STC PROGRAM™ that are not included in this document. For more information about any STC PROGRAM™ unit, visit www.carolinacurriculum.com

STC PROGRAM™ Units with Recommended Grade Ranges

	Life Science	Earth Science	Physical Science and Technology	
K–3	Organisms (O)	Weather (W)	Solids and Liquids (SL)	Comparing and Measuring (CM)
1–3	The Life Cycle of Butterflies (LCB)	Soils (So)	Changes (C)	Balancing and Weighing (BW)
2–4	Plant Growth and Development (PGD)	Rocks and Minerals (RM)	Chemical Tests (CT)	Sound (S)
3–5	Animal Studies (AS)	Land and Water (LW)	Electric Circuits (EC)	Motion and Design (MD)
4–6	Microworlds (MW)	Ecosystems (E)	Food Chemistry (FC)	Floating and Sinking (FS)
5–6	Experiments with Plants (EP)	Measuring Time (MT)	Magnets and Motors (MM)	The Technology of Paper (TP)
6–8	Human Body Systems (HBS)	Catastrophic Events (CE)	Properties of Matter (PM)	Energy, Machines, and Motion (EMM)
	Organisms–From Macro to Micro (OMM)	Earth in Space (ES)	Light (L)	Electrical Energy and Circuit Design (EECD)

Legend

To save paper, the curriculum location information in this document has been abbreviated as follows:

- Unit abbreviations = noted in parentheses in the chart above
- TG = Teacher’s Guide
- S-Sec3 = Section 3 (containing a section on safety) in the STC® Teacher’s Guide
- Sec4 = Section 4 (containing the unit lessons) in the Teacher’s Guide
- L01, L02, etc. = Lesson 1, Lesson 2, etc.
- p, pp = page, pages
- RB = STC BOOK™ (a science reading book included in some of the grades 3–5 STC® unit kits)
- Exts = Extensions (found at the end of most lessons in the Teacher’s Guide)
- App-A, App-B = Appendix A, Appendix B (found at the end of Section 4 in the Teacher’s Guide)

A Correlation of the STC PROGRAM™ with The New York City Science Performance Standards

GRADES K-4		
STANDARD	NYC.S1.	Physical Sciences Concepts: The student demonstrates conceptual understanding by using a concept accurately to explain observations and make predictions and by representing the concept in multiple ways (through words, diagrams, graphs, or charts, as appropriate). Both aspects of understanding - explaining and representing - are required to meet this standard.
KEY IDEA	S1a.	<p>The student produces evidence that demonstrates understanding of properties of objects and materials, such as similarities and differences in the size, weight, and color of objects; the ability of materials to react with other substances; and different states of materials.</p> <p>BW - TG: L12 (pp101-106) C - TG: L01 (pp3-20) C - TG: L11 (pp103-110) CT - TG: L11.Exts (pp103-104) CT - TG: L16.Exts (pp152-153) CT - TG: L17 (pp155-158) FS - RB: (pp07-10) FS - RB: (pp36-40) RM - TG: L01 (pp3-12) RM - TG: L02 (pp13-18) SL - TG: L01-L16 (pp3-136) SL - TG: L17 (pp137-140) S - TG: L01 (pp3-16) S - TG: L03-L08 (pp27-86) So - TG: L12.Exts (p88)</p>
KEY IDEA	S1b.	<p>The student produces evidence that demonstrates understanding of position and motion of objects, such as how the motion of an object can be described by tracing and measuring its position over time; and how sound is produced by vibrating objects.</p> <p>FS - TG: L09 (pp69-78) MD - TG: L03 (pp25-34) MD - TG: L04 (pp35-46) MD - TG: L05 (pp47-56) MD - TG: L07.Exts (pp68-69) MD - TG: L08-L13 (pp73-124) MD - TG: L15 (pp139-144) MD - TG: L17 (pp153-156) SL - TG: L04 (pp29-40) So - TG: L01 (pp11-16) So - TG: L02 (pp17-22) So - TG: L03.Exts (p20) So - TG: L04-L10 (pp28-72) So - TG: L12-L17 (pp79-118)</p>
KEY IDEA	S1c.	<p>The student produces evidence that demonstrates understanding of light, heat, electricity, and magnetism, such as the variation of heat and temperature; how light travels in a straight line until it strikes an object or how electrical circuits work.</p>

		<p>CT - TG: L10.Exts (p97) CT - TG: L10 (pp93-100) EC - RB: (pp07-21) EC - RB: (pp24-44) EC - RB: (pp47-61) EC - TG: L01-L17 (pp3-86) RM - TG: L11 (pp79-84) SL - TG: L07 (pp55-62) SL - TG: L09 (pp69-80) W - TG: L09 (pp83-90)</p>
STANDARD	NYC.S2.	Life Sciences Concepts: The student demonstrates conceptual understanding by using a concept accurately to explain observations and make predictions and by representing the concept in multiple ways (through words, diagrams, graphs, or charts, as appropriate). Both aspects of understanding - explaining and representing - are required to meet this standard.
KEY IDEA	S2a.	<p>The student produces evidence that demonstrates understanding of characteristics of organisms, such as survival and environmental support; the relationship between structure and function; and variations in behavior.</p> <p>AS - RB: (pp06-11) AS - RB: (pp16-19) AS - RB: (pp30-32) AS - RB: (pp40-42) AS - RB: (pp45-49) AS - TG: L11.Exts (p119) AS - TG: L13 (pp135-142) AS - TG: L14.Exts (p145) AS - TG: L16.Exts (p167) EC - RB: (pp47-49) E - RB: (pp11-13) FS - RB: (pp60-61) LCB - TG: L01-L16 (pp3-96) LW - TG: L14.Exts (p156) MD - RB: (pp14-17) M - RB: (pp37-43) M - RB: (pp46-47) M - TG: L13.Exts (p74) O - TG: L13 (pp135-148) O - TG: L15-L17 (pp155-182) PGD - TG: L02 (pp9-12) PGD - TG: L04 (pp25-28) PGD - TG: L05 (pp29-34) PGD - TG: L10 (pp55-60) PGD - TG: L13 (pp71-78) S - TG: L10 (pp97-108) S - TG: L16.Exts (pp164-166) So - TG: L08.Exts (pp61-62) So - TG: L14.Exts (p98)</p>
KEY IDEA	S2b.	<p>The student produces evidence that demonstrates understanding of life cycles of organisms, such as how inheritance and environment determine the characteristics of an organism; and that all plants and animals have life cycles.</p> <p>AS - RB: (pp06-15)</p>

		AS - RB: (pp35-37) AS - RB: (pp40-42) AS - TG: L04.Exts (pp41-42) AS - TG: L07.Exts (pp79-80) LW - RB: (pp07-09) LCB - TG: App-A (pp97-100) LCB - TG: App-B (pp101-110) LCB - TG: L010116 (pp3-96) O - TG: L10.Exts (p115) O - TG: L11 (pp119-126) O - TG: L12 (pp127-134) O - TG: L16 (pp169-178) O - TG: L17 (pp179-182)
KEY IDEA	S2c.	The student produces evidence that demonstrates understanding of organisms and environments, such as the interdependence of animals and plants in an ecosystem; and populations and their effects on the environment. AS - RB: (pp06-11) AS - RB: (pp40-42) AS - TG: L01-L17 (pp3-172) E - RB: (pp07-23) E - RB: (pp26-37) E - RB: (pp40-51) E - RB: (pp54-61) E - TG: L01-L17 (pp3-171) LCB - TG: L02.Exts (pp14-15) LCB - TG: L10 (pp63-68) M - TG: L12.Exts (pp69-70) O - TG: L04.Exts (pp43-45) O - TG: L11 (pp119-126) O - TG: L12 (pp127-134) O - TG: L14.Exts (pp152-153) PGD - TG: L11.Exts (p63) PGD - TG: L11 (pp61-66) PGD - TG: L14.Exts (pp86-87)
KEY IDEA	S2d.	The student produces evidence that demonstrates understanding of change over time, such as evolution and fossil evidence depicting the great diversity of organisms developed over geologic history. AS - RB: (pp45-49)
STANDARD	NYC.S3.	Earth and Space Sciences Concepts: The student demonstrates conceptual understanding by using a concept accurately to explain observations and make predictions and by representing the concept in multiple ways (through words, diagrams, graphs or charts, as appropriate). Both aspects of understanding - explaining and representing - are required to meet this standard.
KEY IDEA	S3a.	The student produces evidence that demonstrates understanding of properties of Earth materials, such as water and gases; and the properties of rocks and soils, such as texture, color, and ability to retain water. C - TG: L02 (pp21-30) C - TG: L03 (pp31-42) C - TG: L08 (pp79-84) E - TG: L02 (pp13-24)

		<p>E - TG: L11.Exts (p114) FC - TG: L12.Exts (pp112-113) FS - RB: (pp24-26) FS - RB: (pp36-40) FS - RB: (pp48-50) LW - RB: (pp15-18) LW - RB: (pp21-25) LW - RB: (pp36-38) LW - TG: L01 (pp3-10) LW - TG: L02 (pp11-28) LW - TG: L05.Exts (p56) RM - TG: L01 (pp3-12) RM - TG: L02 (pp13-18) RM - TG: L03.Exts (p22) RM - TG: L04 (pp27-34) RM - TG: L16 (pp113-126) RM - TG: L17 (pp127-128) SL - TG: L04.Exts (p34) SL - TG: L10.Exts (p85) S - TG: L01-L17 (pp3-172) W - TG: L10.Exts (p95) W - TG: L11 (pp101-112)</p>
KEY IDEA	S3b.	<p>The student produces evidence that demonstrates understanding of objects in the sky, such as Sun, Moon, planets, and other objects that can be observed and described; and the importance of the Sun to provide the light and heat necessary for survival.</p> <p>PGD - TG: L01 (pp3-8)</p>
KEY IDEA	S3c.	<p>The student produces evidence that demonstrates understanding of changes in Earth and sky, such as changes caused by weathering, volcanism, and earthquakes; and the patterns of movement of objects in the sky.</p> <p>LW - RB: (pp12-14) LW - TG: L03 (pp29-36) LW - TG: L05 (pp51-62) LW - TG: L07 (pp75-84) M - RB: (pp13- 15)</p>
STANDARD	NYC.S4.	<p>Scientific Connections and Applications: The student demonstrates conceptual understanding by using a concept accurately to explain observations and make predictions and by representing the concept in multiple ways (through words, diagrams, graphs or charts, as appropriate). Both aspects of understanding - explaining and representing - are required to meet this standard.</p>
KEY IDEA	S4a.	<p>The student produces evidence that demonstrates understanding of Big ideas and unifying concepts, such as order and organization; models, form and function; change and constancy; and cause and effect.</p> <p>BW - TG: L02-L06 (pp9-54) BW - TG: L08.Exts (p67) BW - TG: L09.Exts (p76) BW - TG: L10.Exts (pp84-85) BW - TG: L11.Exts (p94) BW - TG: L12.Exts (p104) BW - TG: L13.Exts (pp110-111)</p>

		<p>CM - TG: L03-L05 (pp17-42) C - TG: App-B (pp169-170) C - TG: L01-L17 (pp3-158) CT - TG: L03 (pp23-34) EC - TG: L02-L16 (pp7-84) E - TG: L02-L07 (pp13-82) FC - TG: L02 (pp11-22) FC - TG: L04 (pp39-48) FS - TG: L06 (pp49-54) LW - TG: L02-L04 (pp11-50) LW - TG: L09-L14 (pp99-162) LCB - TG: L05 (pp29-34) LCB - TG: L11.Exts (pp71-73) MD - TG: L08 (pp73-80) MD - TG: L12 (pp109-116) PGD - TG: L02.Exts (p11) PGD - TG: L03 (pp13-24) PGD - TG: L13 (pp71-78) PGD - TG: L14 (pp79-88) RM - TG: L10.Exts (pp73-74) SL - TG: L05 (pp41-46) SL - TG: L11.Exts (p92) So - TG: L07 (pp49-56) So - TG: L08 (pp57-62) So - TG: L11 (pp73-78) So - TG: L13 (pp85-90) So - TG: L14.Exts (p98) W - TG: L06 (pp55-62) W - TG: L14 (pp129-134)</p>
KEY IDEA	S4b.	<p>The student produces evidence that demonstrates understanding of the designed world, such as development of agricultural techniques; and the viability of technological designs.</p> <p>AS - TG: L08.Exts (p94) EC - RB: (pp17-21) EC - RB: (pp53-55) EC - TG: L16 (pp81-84) E - RB: (pp45-48) FC - TG: L02.Exts (p19) FS - RB: (pp34-35) LW - RB: (pp21-29) LW - RB: (pp36-38) MD - RB: (pp29-36) MD - RB: (pp62) MD - TG: L01 (pp1-14) MD - TG: L02 (pp15-24) MD - TG: L05 (pp47-56) MD - TG: L09 (pp81-90) MD - TG: L15 –L17(pp139-156) M - RB: (pp20-22) M - RB: (pp58-61) PGD - TG: L16 (pp95-98)</p>

KEY IDEA	S4c.	<p>The student produces evidence that demonstrates understanding of personal health, such as nutrition, substance abuse, and exercise; germs and toxic substances; personal and environmental safety.</p> <p>AS - TG: L05.Exts (p58) CT - TG: L02 (pp13-22) CT - TG: L04.Exts (p39) CT - TG: L12.Exts (pp109-110) CT - TG: S-Sec3 (pp18-46) EC - RB: (pp07-10) FC - RB: (pp07-33) FC - RB: (pp41-46) FC - RB: (pp49-61) FC - TG: L01 (pp3-10) FC - TG: L02 (pp11-22) FC - TG: L04-L05 (pp39-56) FC - TG: L06.Exts (p61) FC - TG: L08-L17 (pp79-156) LW - RB: (pp47-49) M - RB: (pp46-47) PGD - TG: S-Sec3 (pp10-14) So - TG: S-Sec3 (pp9-12) CM - TG: S-Sec3 (pp8-11) O - TG: S-Sec3 (pp19-24) SL - TG: S-Sec3 (pp9-18) W - TG: L02.Exts (pp15-16) W - TG: S-Sec3 (pp9-12) W - TG: S-Sec3 (pp17-22)</p>
KEY IDEA	S4d.	<p>The student produces evidence that demonstrates understanding of science as a human endeavor, such as communication, cooperation, and diverse input in scientific research; and the importance of reason, intellectual honesty, and skepticism.</p> <p>AS - RB: (pp58-61) AS - TG: L16 (pp165-168) AS - TG: L17 (pp169-172) CT - TG: L01-L16 (pp3-154) BW - TG: L01-L17 (pp3-138) EC - TG: L01-L17 (pp3-86) E - RB: (pp07-23) E - RB: (pp26-37) E - RB: (pp40-51) E - RB: (pp54-61) E - TG: L02-L10 (pp13-110) E - TG: L12-L17 (pp117-171) FC - TG: L07 (pp69-78) FC - TG: L08 (pp79-84) FC - TG: L13 (pp117-124) FS - TG: L010L17 (pp3-136) LW - TG: L01-L05 (pp3-62) LW - TG: L08 (pp85-98) EC - TG: L01-L17 (pp3-86) E - RB: (pp07-23) E - RB: (pp26-37) E - RB: (pp40-51) E - RB: (pp54-61) E - TG: L02-L10 (pp13-110) E - TG: L12-L17 (pp117-171) FC - TG: L07 (pp69-78)</p>

		FC - TG: L08 (pp79-84) FC - TG: L13 (pp117-124) FS - TG: L010L17 (pp3-136) LW - TG: L01-L05 (pp3-62) LW - TG: L08 (pp85-98) LW - TG: L10-L17 (pp109-186) LCB - TG: L01-L16 (pp3-96) MD - TG: L01-L04 (pp1-46) MD - TG: L06-L17 (pp57-156) M - TG: L01 (pp3-8) M - TG: L02 (pp9-14) O - TG: L03-L16 (pp21-178) PGD - TG: L01 (pp3-8) So - TG: L01-L14 (pp11-102) So - TG: L17 (pp117-118) SL - TG: L01 (pp3-10) SL - TG: L09 (pp69-80) SL - TG: L11.Exts (p92) SL - TG: L17 (pp137-140) S - TG: L01-L17 (pp3-172) W - TG: L01-L13 (pp3-128) W - TG: L15 (pp135-140) W - TG: L16 (pp141-148) W - TG: L17 (pp149-150)
STANDARD	NYC.S5.	Scientific Thinking: The student demonstrates scientific inquiry and problem solving by using thoughtful questioning and reasoning strategies, common sense and conceptual understanding from Science Standards 1 to 4, and appropriate methods to investigate the natural world; that is, the student:
KEY IDEA	S5a.	Asks questions about natural phenomena; objects and organisms; and events and discoveries. AS - TG: L01-L17 (pp3-172) BW - TG: L01-L17 (pp3-138) CT - TG: L01-L16 (pp3-154) CM - TG: L01-L16 (pp3-116) C - TG: L01-L17 (pp3-158) C - TG: L02.Exts (pp26-27) CT - TG: L01-L16 (pp3-154) EC - TG: L01-L17 (pp3-86) E - RB: (pp43-44) E - TG: L01-L17 (pp3-171) FC - TG: L02-L14 (pp11-130) FC - TG: L16 (pp149-154) FS - TG: L01-L17 (pp3-136) LW - TG: L01 (pp3-10) LW - TG: L02 (pp11-28) LW - TG: L07-L17 (pp75-186) LCB - TG: L01-L16 (pp3-96) LCB - TG: L02 (pp11-18) MD - TG: L01 (pp1-14) MD - TG: L03-L13 (pp25-124) MD - TG: L15 (pp139-144) MD - TG: L17 (pp153-156) M - RB: (pp23-25)

		<p>M - TG: L01-L17 (pp3-88) O - TG: L01-L17 (pp3-182) PGD - TG: L01-L17 (pp3-100) RM - TG: L01-L16 (pp3-126) SL - TG: L01-L16 (pp3-136) S - TG: L01-L17 (pp3-172) So - TG: L01-L17 (pp11-118) W - TG: L01-L16 (pp3-148)</p>
KEY IDEA	S5b.	<p>Uses concepts from Science Standards 1 to 4 to explain a variety of observations and phenomena.</p> <p>BW - TG: L05 (pp35-44) BW - TG: L06 (pp45-54) BW - TG: L12.Exts (p104) BW - TG: L15 (pp123-128) CM - TG: L15 (pp99-110) C - TG: L04 (pp43-52) C - TG: L05 (pp53-62) CT - TG: App-A (pp159-160) CT - TG: L03.Exts (pp28-29) CT - TG: L17 (pp155-158) FC - TG: L08.Exts (p81) FS - TG: L02 (pp13-20) FS - TG: L06.Exts (p52) FS - TG: L07.Exts (pp57-58) LW - TG: L01 (pp3-10) LW - TG: L04 (pp37-50) LW - TG: L09 (pp99-108) LW - TG: L17 (pp182-186) LCB - TG: L13 (pp81-84) M - TG: L06 (pp31-36) M - TG: L10 (pp55-60) M - TG: L11 (pp61-66) M - TG: L12 (pp67-70) M - TG: L14 (pp75-78) M - TG: L15 (pp79-82) M - TG: L16 (pp83-86) O - TG: L01 (pp3-10) O - TG: L02 (pp11-20) O - TG: L04 (pp36-52) O - TG: L05 (pp53-64) O - TG: L17 (pp179-182) PGD - TG: L01 (pp3-8) PGD - TG: L09 (pp47 - 54) PGD - TG: L17 (pp99-100) RM - TG: L05 (pp35-42) RM - TG: L07 (pp51-56) RM - TG: L08 (pp57-62) RM - TG: L11 (pp79-84) RM - TG: L12 (pp85-90) RM - TG: L13 (pp91-94) SL - TG: L01-L03 (pp3-28) SL - TG: L02.Exts (pp15-16) SL - TG: L05.Exts (pp43-45) SL - TG: L06.Exts (pp51-52) SL - TG: L07-L10 (pp55-86) SL - TG: L14.Exts (p114)</p>

		<p>SL - TG: L16.Exts (pp135-136) SL - TG: L17 (pp137-140) So - TG: L04 (pp28-32) So - TG: L16 (pp113-116) W - TG: L01 (pp3-10) W - TG: L05.Exts (pp47-48) W - TG: L15 (pp135-140) W - TG: L16 (pp141-148) W - TG: L17 (pp149-150)</p>
KEY IDEA	S5c.	<p>Uses evidence from reliable sources to construct explanations.</p> <p>BW - TG: L05 (pp35-44) BW - TG: L06 (pp45-54) BW - TG: L12.Exts (p104) BW - TG: L15 (pp123-128) CM - TG: L15 (pp99-110) C - TG: L04 (pp43-52) C - TG: L05 (pp53-62) CT - TG: App-A (pp159-160) CT - TG: L03.Exts (pp28-29) CT - TG: L17 (pp155-158) FC - TG: L08.Exts (p81) FS - TG: L02 (pp13-20) FS - TG: L06.Exts (p52) FS - TG: L07.Exts (pp57-58) LW - TG: L01 (pp3-10) LW - TG: L04 (pp37-50) LW - TG: L09 (pp99-108) LW - TG: L17 (pp182-186) LCB - TG: L13 (pp81-84) M - TG: L06 (pp31-36) M - TG: L10-L121 (pp55-70) M - TG: L14-L16 (pp75-86) O - TG: L01 (pp3-10) O - TG: L02 (pp11-20) O - TG: L04 (pp36-52) O - TG: L05 (pp53-64) O - TG: L17 (pp179-182) PGD - TG: L01 (pp3-8) PGD - TG: L09 (pp47 - 54) PGD - TG: L17 (pp99-100) RM - TG: L05 (pp35-42) RM - TG: L07 (pp51-56) RM - TG: L08 (pp57-62) RM - TG: L11 (pp79-84) RM - TG: L12 (pp85-90) RM - TG: L13 (pp91-94) SL - TG: L01-L03 (pp3-28) SL - TG: L05.Exts (pp43-45) SL - TG: L06.Exts (pp51-52) SL - TG: L07-L10 (pp55-86) SL - TG: L14.Exts (p114) SL - TG: L16.Exts (pp135-136) SL - TG: L17 (pp137-140) So - TG: L04 (pp28-32) So - TG: L16 (pp113-116) W - TG: L01 (pp3-10) W - TG: L05.Exts (pp47-48)</p>

		<p>W - TG: L15 (pp135-140) W - TG: L16 (pp141-148) W - TG: L17 (pp149-150)</p>
KEY IDEA	S5d.	<p>Evaluates different points of view using relevant experiences, observations, and knowledge; and distinguishes between fact and opinion.</p> <p>AS - TG: L16 (pp165-168) BW - TG: L01-L17 (pp3-138) CM - TG: L01-L17 (pp3-120) C - TG: L01-L17 (pp3-158) CT - TG: L01-L17 (pp3-158) EC - TG: L11.Exts (p63) EC - TG: L17 (pp85-86) E - TG: L13 (pp125-132) FC - TG: L03 (pp23-38) FC - TG: L05 (pp49-56) FC - TG: L06 (pp57-68) FC - TG: L08 (pp79-84) FC - TG: L09 (pp85-94) FC - TG: L11 (pp101-106) FC - TG: L12 (pp107-116) FC - TG: L14 (pp125-130) FC - TG: L15 (pp131-148) FS - TG: L03 (pp21-30) FS - TG: L09-L14 (pp69-118) FS - TG: L16 (pp129-134) LW - TG: L06 (pp63-74) LW - TG: L08 (pp85-98) LW - TG: L10-L12 (pp109-142) LW - TG: L15 (pp163-172) LW - TG: L16 (pp173-182) LCB - TG: L16 (pp95-96) MD - TG: L04-L08 (pp35-80) MD - TG: L10 (pp91-100) MD - TG: L12-L16 (pp109-152) O - TG: L02-L16 (pp11-178) PGD - TG: L02-L17 (pp9-100) RM - TG: L01-L16 (pp3-126) So - TG: L01-L14 (pp11-102) SL - TG: L01-L16 (pp3-136) W - TG: L01-L16 (pp3-148)</p>
KEY IDEA	S5e.	<p>Identifies problems; proposes and implements solutions; and evaluates the accuracy, design, and outcomes of investigations.</p> <p>AS - TG: L12 (pp123-134) AS - TG: L16 (pp165-168) AS - TG: L17 (pp169-172) BW - TG: L01-L17 (pp3-138) CM - TG: L01-L17 (pp3-120) C - TG: L01-L17 (pp3-158) CT - TG: L01-L17 (pp3-158) EC - RB: (pp13-16) EC - RB: (pp60-61) EC - TG: L01-L17 (pp3-86) E - RB: (pp43-44) E - TG: L02-L17 (pp13-171)</p>

		FC - TG: L02-L16 (pp11-156) FS - RB: (pp60-61) FS - TG: L01-L17 (pp3-136) LW - TG: L01-L17 (pp3-186) LCB - TG: L01-L16 (pp3-96) MD - RB: (pp23-28) MD - TG: L01 (pp1-14) MD - TG: L03-L17 (pp25-156) M - RB: (pp23-25) M - TG: L01-L17 (pp3-88) O - TG: L02-L16 (pp11-178) PGD - TG: L01-L17 (pp3-100) RM - TG: L01-L16 (pp3-126) RM - TG: L16 (pp113-126) So - TG: L01-L17 (pp11-118) SL - TG: L01-L16 (pp3-136) S - TG: L01-L16 (pp3-168) W - TG: L01-L13 (pp3-128) W - TG: L16 (pp141-148)
KEY IDEA	S5f.	Works individually and in teams to collect and share information and ideas. AS - TG: L01-L17 (pp3-172) BW - TG: L01-L17 (pp3-138) CM - TG: L01-L17 (pp3-120) C - TG: L01-L17 (pp3-158) CT - TG: L01-L16 (pp3-154) EC - TG: L01-L17 (pp3-86) E - TG: L02-L17 (pp13-171) FC - TG: L01-L03 (pp3-38) FC - TG: L05-L12 (pp49-116) FC - TG: L14 (pp125-130) FC - TG: L16 (pp149-154) FC - TG: L17 (pp155-156) FS - TG: L01-L17 (pp3-136) LW - TG: L01-L09 (pp3-108) LW - TG: L11-L17 (pp119-186) LCB - TG: L01 (pp3-10) LCB - TG: L02 (pp11-18) LCB - TG: L13 (pp81-84) LCB - TG: L15 (pp89-94) LCB - TG: L16 (pp95-96) MD - TG: L01 (pp1-14) MD - TG: L03-L17 (pp25-156) M - TG: L01-L17 (pp3-88) O - TG: L02 -L16(pp11-178) PGD - TG: L01-L16 (pp3-98) RM - TG: L01-L16 (pp3-126) So - TG: L01-L17 (pp11-118) SL - TG: L01-L16 (pp3-136) S - TG: L01-L17 (pp3-172) W - TG: App-B (pp153-167) W - TG: L01-L16 (pp3-148)

STANDARD	NYC.S6.	Scientific Tools and Technologies: The student demonstrates competence with the tools and technologies of science by using them to collect data, make observations, analyze results, and accomplish tasks effectively; that is, the student:
KEY IDEA	S6a.	<p>Uses technology and tools (such as rulers, computers, balances, thermometers, watches, magnifiers, and microscopes) to gather data and extend the senses.</p> <p>AS - TG: L02-L15 (pp11-164) BW - TG: L02-L17 (pp9-138) CT - TG: L01-L16 (pp3-154) EC - TG: L01-L17 (pp3-86) E - TG: L06.Exts (pp64-65) FS - TG: L01-L17 (pp3-136) LW - RB: (pp32-35) LW - TG: L04-L16 (pp37-182) LCB - TG: L01.Exts (p7) LCB - TG: L02-L09 (pp11-62) LCB - TG: L11.Exts (pp71-73) LCB - TG: L12 (pp75-80) LCB - TG: L14 (pp85-88) MD - TG: L02 (pp15-24) MD - TG: L03 (pp25-34) MD - TG: L06 (pp57-64) MD - TG: L08 (pp73-80) MD - TG: L09 (pp81-90) MD - TG: L11-L14 (pp101-138) MD - TG: L16 (pp145-152) M - RB: (pp07-25) M - RB: (pp28-43) M - RB: (pp46-61) M - TG: L01-L17 (pp3-88) PGD - TG: L02-L16 (pp9-98) RM - TG: L01-L16 (pp3-27) So - TG: L04.Exts (pp26-27) SL - TG: L11 (pp87-94) S - TG: L01.Exts (p12) S - TG: L02 (pp17-26) S - TG: L03 (pp27-36) S - TG: L05-L08 (pp45-86) S - TG: L10-L15 (pp97-158) W - TG: App-A (pp151-152) W - TG: App-B (pp153-167) W - TG: L05-L10 (pp43-100)</p>
KEY IDEA	S6b.	<p>Collects and analyzes data using concepts and techniques in Mathematics Standard 4, such as average, data displays, graphing, variability, and sampling.</p> <p>AS - TG: L02-L06 (pp11-74) AS - TG: L08 (pp87-96) AS - TG: L09 (pp97-106) AS - TG: L15 (pp157-164) BW - TG: L01 (pp3-8) BW - TG: L10 (pp79-88) BW - TG: L11 (pp89-100) BW - TG: L14 (pp115-122) BW - TG: L15.Exts (p126) BW - TG: L17 (pp137-138) CM - TG: L01 (pp3-10)</p>

CM - TG: L04 (pp23-30)
 CM - TG: L05 (pp31-42)
 CM - TG: L07 (pp49-58)
 CM - TG: L09 (pp65-70)
 C - TG: L01 (pp3-20)
 C - TG: L02 (pp21-30)
 C - TG: L05 (pp53-62)
 C - TG: L06.Exts (pp67-69)
 C - TG: L07-L17 (pp71-158)
 CT - TG: L05 (pp45-56)
 CT - TG: L08 (pp79-84)
 CT - TG: L11 (pp101-106)
 EC - TG: L02-L16 (pp7-84)
 E - TG: L02-L12 (pp13-124)
 E - TG: L14 (pp133-144)
 FC - TG: L07 (pp69-78)
 FC - TG: L09-L13 (pp85-124)
 FC - TG: L16 (pp149-154)
 FS - RB: (pp07-10)
 FS - TG: L01-3 (pp3-30)
 .FS - TG: L05 (pp39-48)
 FS - TG: L07 (pp55-60)
 FS - TG: L11 (pp87-94)
 FS - TG: L12 (pp95-102)
 FS - TG: L14 (pp113-118)
 LW - TG: L01 (pp3-10)
 LW - TG: L02 (pp11-28)
 LW - TG: L04 (pp37-50)
 LW - TG: L05 (pp51-62)
 LW - TG: L07 (pp75-84)
 LW - TG: L08 (pp85-98)
 LW - TG: L09 (pp99-108)
 LW - TG: L12 (pp129-142)
 LW - TG: L13 (pp143-152)
 MD - TG: L04 (pp35-46)
 O - TG: L02 (pp11-20)
 O - TG: L13 (pp135-148)
 O - TG: L14 (pp149-154)
 O - TG: L15 (pp155-168)
 O - TG: L16.Exts (pp172-173)
 PGD - TG: App-A (pp101-103)
 PGD - TG: L01 (pp3-8)
 PGD - TG: L05 (pp29-34)
 PGD - TG: L07 (pp39-42)
 PGD - TG: L12 (pp67-70)
 PGD - TG: L15 (pp89-94)
 RM - TG: L03 (pp19-26)
 So - TG: L04-L06 (pp28-48)
 So - TG: L17 (pp117-118)
 SL - TG: L01 (pp3-10)
 SL - TG: L05.Exts (pp43-45)
 SL - TG: L06.Exts (pp51-52)
 SL - TG: L10.Exts (p85)
 SL - TG: L12 (pp95-100)
 SL - TG: L17 (pp137-140)
 W - TG: App-B (pp153-167)
 W - TG: L01 (pp3-10)

		<p>W - TG: L02 (pp11-24) W - TG: L04 (pp33-42) W - TG: L07 (pp63-70) W - TG: L08 (pp71-82) W - TG: L10 (pp91-100) W - TG: L12 (pp113-122) W - TG: L14 (pp129-134) W - TG: L15.Exts (p137) W - TG: L16 (pp141-148)</p>
KEY IDEA	S6c.	<p>Acquires information from multiple sources, such as experimentation and print and non-print sources. S - TG: L04.Exts (p41) S - TG: L09.Exts (p92) S - TG: L10.Exts (pp102-103) S - TG: L11.Exts (p113)</p>
STANDARD	NYC.S7.	<p>Scientific Communication: The student demonstrates effective scientific communication by clearly describing aspects of the natural world using accurate data, graphs, or other appropriate media to convey depth of conceptual understanding in science; that is, the student:</p>
KEY IDEA	S7a.	<p>Represents data and results in multiple ways, such as numbers, tables, and graphs; drawings, diagrams, and artwork; and technical and creative writing. AS - TG: L02-L05 (pp11-64) AS - TG: L06 (pp65-74) AS - TG: L08 (pp87-96) AS - TG: L09 (pp97-106) AS - TG: L15 (pp157-164) AS - TG: L16.Exts (p167) BW - TG: L01 (pp3-8) BW - TG: L02 (pp9-14) BW - TG: L06.Exts (pp50-51) BW - TG: L10 (pp79-88) BW - TG: L11 (pp89-100) BW - TG: L14 (pp115-122) BW - TG: L15.Exts (p126) BW - TG: L17 (pp137-138) CM - TG: L01 (pp3-10) CM - TG: L02 (pp11-16) CM - TG: L04 (pp23-30) CM - TG: L05 (pp31-42) CM - TG: L07 (pp49-58) CM - TG: L09 (pp65-70) C - TG: L01 (pp3-20) C - TG: L02 (pp21-30) C - TG: L04.Exts (p48) C - TG: L05 (pp53-62) C - TG: L06.Exts (pp67-69) C - TG: L07-L17 (pp71-158) CT - TG: L03.Exts (pp28-29) CT - TG: L05 (pp45-56) CT - TG: L08 (pp79-84) CT - TG: L11 (pp101-106)</p>

CT - TG: L12.Exts (pp109-110)
 EC - RB: (pp07-21)
 EC - RB: (pp24-44)
 EC - RB: (pp47-61)
 EC - TG: L02-L16 (pp7-84)
 E - TG: L02-L12 (pp13-124)
 E - TG: L14 (pp133-144)
 FC - TG: L01-L04 (pp3-48)
 FC - TG: L06-L14 (pp57-130)
 FC - TG: L16 (pp149-154)
 FC - TG: L17 (pp155-156)
 FS - TG: L01-L03 (pp3-30)
 FS - TG: L05 (pp39-48)
 FS - TG: L06.Exts (p52)
 FS - TG: L07 (pp55-60)
 FS - TG: L11 (pp87-94)
 FS - TG: L12 (pp95-102)
 FS - TG: L14 (pp113-118)
 LW - TG: L01 (pp3-10)
 LW - TG: L02 (pp11-28)
 LW - TG: L04 (pp37-50)
 LW - TG: L05 (pp51-62)
 LW - TG: L07-L09 (pp75-108)
 LW - TG: L12 (pp129-142)
 LW - TG: L13 (pp143-152)
 LW - TG: L16 (pp173-182)
 LCB - TG: App-B (pp101-110)
 LCB - TG: L01 (pp3-10)
 LCB - TG: L06 (pp35-38)
 LCB - TG: L07 (pp39-46)
 LCB - TG: L11.Exts (pp71-73)
 LCB - TG: L13.Exts (p82)
 LCB - TG: L16 (pp95-96)
 MD - TG: L02 (pp15-24)
 MD - TG: L04 (pp35-46)
 MD - TG: L14 (pp125-138)
 MD - TG: L15 (pp139-144)
 MD - TG: L16 (pp145-152)
 M - RB: (pp07-25)
 M - RB: (pp28-43)
 M - RB: (pp46-61)
 M - TG: App-A (pp89-92)
 M - TG: L01-L04 (pp3-24)
 M - TG: L06-L17 (pp31-88)
 O - TG: L01-L05 (pp3-64)
 O - TG: L08 (pp87-96)
 O - TG: L09 (pp97-104)
 O - TG: L10 (pp105-118)
 PGD - TG: App-A (pp101-103)
 PGD - TG: L01 (pp3-8)
 PGD - TG: L02 (pp9-12)
 PGD - TG: L04 (pp25-28)
 PGD - TG: L05 (pp29-34)
 PGD - TG: L07 (pp39-42)
 PGD - TG: L12 (pp67-70)
 PGD - TG: L15 (pp89-94)
 RM - TG: L03 (pp19-26)

		<p>RM - TG: L17 (pp127-128) So - TG: L01.Exts (pp7-8) So - TG: L04 (pp28-32) So - TG: L05 (pp33-38) So - TG: L06 (pp39-48) So - TG: L11 (pp73-78) So - TG: L17 (pp117-118) O - TG: L13-L17 (pp135-182) SL - TG: L01 (pp3-10) SL - TG: L03 (pp19-28) SL - TG: L04 (pp29-40) SL - TG: L05.Exts (pp43-45) SL - TG: L06 (pp47-54) SL - TG: L10.Exts (p85) SL - TG: L12 (pp95-100) SL - TG: L16 (pp131-136) SL - TG: L17 (pp137-140) S - TG: L01-L17 (pp3-172) W - TG: App-B (pp153-167) W - TG: L01 (pp3-10) W - TG: L02 (pp11-24) W - TG: L03.Exts (p29) W - TG: L04 (pp33-42) W - TG: L07 (pp63-70) W - TG: L08 (pp71-82) W - TG: L10-L16 (pp91-148)</p>
KEY IDEA	S7b.	<p>Uses facts to support conclusions. BW - TG: L01-L17 (pp3-138) CM - TG: L01-L17 (pp3-120) C - TG: L01-L17 (pp3-158) CT - TG: L01-L16 (pp3-154) FC - TG: L05 (pp49-56) FC - TG: L08 (pp79-84) FS - TG: L17 (pp135-136) LW - TG: L05 (pp51-62) LW - TG: L10 (pp109-118) LW - TG: L13 (pp143-152) LW - TG: L14 (pp153-162) LW - TG: L17 (pp182-186) MD - TG: L03 (pp25-34) O - TG: L02-L16 (pp11-178) PGD - TG: L02-L17 (pp9-100) RM - TG: L01-L17 (pp3-128) So - TG: L01-L14 (pp11-102) So - TG: L17 (pp117-118) SL - TG: L01-L16 (pp3-136) W - TG: L01-L09 (pp3-90) W - TG: L11 (pp101-112) W - TG: L12 (pp113-122) W - TG: L14-L17(pp129-150)</p>
KEY IDEA	S7c.	<p>Communicates in a form suited to the purpose and the audience, such as writing instructions that others can follow. AS - RB: (pp58-61) AS - TG: L04.Exts (pp41-42)</p>

		AS - TG: L08.Exts (p94) AS - TG: L09.Exts (pp101-102) AS - TG: L12.Exts (p129) AS - TG: L13.Exts (p138) AS - TG: L16.Exts (p167) AS - TG: L17 (pp169-172) BW - TG: L01-L17 (pp3-138) CT - TG: L01-L17 (pp3-158) EC - TG: L01-L17 (pp3-86) E - RB: (pp07-23) E - RB: (pp26-37) E - RB: (pp40-51) E - RB: (pp54-61) E - TG: L02-L17(pp13-171) FC - TG: L02.Exts (p19) FC - TG: L07 (pp69-78) FC - TG: L08 (pp79-84) FC - TG: L11 (pp101-106) FC - TG: L13 (pp117-124) FC - TG: L16.Exts (p152) FS - TG: L01-L17 (pp3-136) LW - TG: L01-L05 (pp3-62) LW - TG: L07-L14 (pp75-162) LW - TG: L16 (pp173-182) LW - TG: L17 (pp182-186) LCB - TG: L01-L16 (pp3-96) O - TG: L03-L16 (pp21-178) MD - TG: L01-L04 (pp1-46) MD - TG: L06-L17 (pp57-156) M - TG: L01 (pp3-8) M - TG: L02 (pp9-14) PGD - TG: L01 (pp3-8) PGD - TG: L12 (pp67-70) RM - TG: L15 (pp103-112) RM - TG: L16 (pp113-126) So - TG: L01-L14 (pp11-102) So - TG: L17 (pp117-118) SL - TG: L01 (pp3-10) SL - TG: L09 (pp69-80) SL - TG: L11.Exts (p92) SL - TG: L17 (pp137-140) S - TG: L01-L17 (pp3-172) W - TG: L01-L17 (pp3-150)
KEY IDEA	S7d.	Critiques written and oral explanations, and uses data to resolve disagreements. AS - TG: L16 (pp165-168) EC - TG: L11.Exts (p63) EC - TG: L17 (pp85-86) FC - TG: L03 (pp23-38) FC - TG: L05 (pp49-56) FC - TG: L11 (pp101-106) LW - TG: L16 (pp173-182) LCB - TG: L16 (pp95-96) MD - TG: L05 (pp47-56) MD - TG: L06 (pp57-64) MD - TG: L08 (pp73-80) MD - TG: L13 (pp117-124)

		<p>MD - TG: L14 (pp125-138) MD - TG: L15 (pp139-144) MD - TG: L16 (pp145-152) PGD - TG: L13.Exts (p78) W - TG: L12.Exts (pp116-117) W - TG: L15 (pp135-140)</p>
STANDARD	NYC.S8.	<p>Scientific Investigation: The student demonstrates scientific competence by completing projects drawn from the following kinds of investigations, including at least one full investigation each year and, over the course of elementary school, investigations that integrate several aspects of Science Standards 1 to 7 and represent all four of the kinds of investigation:</p>
KEY IDEA	S8a.	<p>An experiment, such as conducting a fair test.</p> <p>AS - TG: L10 (pp107-114) BW - TG: L13.Exts (pp110-111) CT - TG: L01-L10 (pp3-100) CT - TG: L12-L16 (pp107-154) EC - TG: L02 (pp7-14) EC - TG: L03 (pp15-20) EC - TG: L05-L08 (pp25-48) EC - TG: L11.Exts (p63) EC - TG: L14 (pp73-76) E - RB: (pp43-44) E - TG: L10-L14 (pp99-144) E - TG: L16.Exts (p167) FC - TG: L02-L04 (pp11-48) FC - TG: L06-L14 (pp57-130) FC - TG: L16 (pp149-154) FS - TG: L01-L17 (pp3-136) LW - TG: L16 (pp173-182) LCB - TG: L01-L16 (pp3-96) MD - TG: L15 (pp139-144) M - TG: L01-L17 (pp3-88) PGD - TG: L16.Exts (pp96-97) So - TG: L12.Exts (p88) So - TG: L14.Exts (p98) W - TG: L12 (pp113-122)</p>
KEY IDEA	S8b.	<p>A systematic observation, such as a field study.</p> <p>AS - TG: L02 (pp11-20) AS - TG: L04-L09 (pp37-106) AS - TG: L11 (pp115-122) AS - TG: L12 (pp123-134) AS - TG: L17 (pp169-172) BW - TG: L01-L17 (pp3-138) CM - TG: L01-L17 (pp3-120) C - TG: L01-L17 (pp3-158) CT - TG: App-A (pp159-160) CT - TG: L01-L16 (pp3-154) EC - TG: L01-L17 (pp3-86) E - RB: (pp43-44) E - TG: L01-L17 (pp3-171) FC - TG: L02-L16 (pp11-154)</p>

		<p>FS - TG: L01-L17 (pp3-136) LW - RB: (pp07-18) LW - RB: (pp21-38) LW - RB: (pp41-61) LW - TG: L01-L17 (pp3-186) LCB - TG: L01-L16 (pp3-96) MD - TG: L01-L15 (pp1-144) MD - TG: L17 (pp153-156) M - TG: L01-L17 (pp3-88) O - TG: L01.Exts (p6) O - TG: L02-L16 (pp11-178) PGD - TG: L01-L16 (pp3-98) RM - TG: L01-L16 (pp3-126) So - TG: L01-L14 (pp11-102) So - TG: L17 (pp117-118) SL - TG: L01-L16 (pp3-136) S - TG: L01-L16 (pp3-168) W - TG: L01-L15 (pp3-140)</p>
KEY IDEA	S8c.	<p>A design, such as building a model or scientific apparatus. BW - TG: L02 (pp9-14) BW - TG: L03 (pp15-26) BW - TG: L05 (pp35-44) BW - TG: L06 (pp45-54) EC - TG: L02-L16 (pp7-84) E - TG: L02-L07 (pp13-82) FS - TG: L06 (pp49-54) LW - TG: L02-L04 (pp11-50) LW - TG: L09 (pp99-108) LW - TG: L10 (pp109-118) LW - TG: L12 (pp129-142) PGD - TG: L02.Exts (p11) PGD - TG: L13 (pp71-78) PGD - TG: L14 (pp79-88) So - TG: L07 (pp49-56) So - TG: L08 (pp57-62) So - TG: L11 (pp73-78) So - TG: L13 (pp85-90) So - TG: L14.Exts (p98) W - TG: L06 (pp55-62)</p>
KEY IDEA	S8d.	<p>Non-experimental research using print and electronic information, such as journals, video, or computers. AS - TG: L14 (pp143-156) FC - TG: L06 (pp57-68) FC - TG: L08-l10 (pp79-100) FC - TG: L12 (pp107-116) FC - TG: L13 (pp117-124) FC - TG: L15 (pp131-148) LW - TG: L02 (pp11-28) LW - TG: L06 (pp63-74) LW - TG: L07 (pp75-84) LW - TG: L12 (pp129-142) LW - TG: L16 (pp173-182) PGD - TG: L08.Exts (p44) PGD - TG: L11.Exts (p63)</p>

		So - TG: L04 (pp28-32) So - TG: L14 (pp91-102) S - TG: L04.Exts (p41) S - TG: L09.Exts (p92) S - TG: L10.Exts (pp102-103) S - TG: L11.Exts (p113)
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GRADES 5-8		
STANDARD	NYC.S1.	Physical Sciences Concepts: The student demonstrates conceptual understanding by using a concept accurately to explain observations and make predictions and by representing the concept in multiple ways (through words, diagrams, graphs, or charts, as appropriate). Both aspects of understanding - explaining and representing - are required to meet this standard.
KEY IDEA	S1a.	<p>The student produces evidence that demonstrates understanding of properties and changes of properties in matter, such as density and boiling point; chemical reactivity; and conservation of matter.</p> <ul style="list-style-type: none"> CE - SG: L04 (pp42-53) CE - TG: L04 (pp45-56) E - TG: L13.Exts (p127) EMM - SG: L02 (pp12-19) EMM - SG: L03 (pp20-25) EMM - TG: L02 (pp23-30) EMM - TG: L03 (pp31-36) FS - RB: (pp07-10) FS - RB: (pp15-17) FS - RB: (pp36-42) FS - RB: (pp48-50) FS - RB: (pp60-61) FS - TG: L02 (pp13-20) FS - TG: L06 (pp49-54) FS - TG: L10 (pp79-86) FS - TG: L13 (pp103-112) FS - TG: L14 (pp113-118) FS - TG: L15 (pp119-128) HBS - TG: L03.Exts (p24) HBS - TG: L07.Exts (pp74-75) M - TG: L09.Exts (p53) PM - SG: L01-L03 (pp2-29) PM - SG: L05 (pp38-55) PM - SG: L09 (pp78-83) PM - SG: L18 (pp150-161) PM - SG: L19 (pp162-167) PM - SG: L21 (pp186-197) PM - SG: L26 (pp230-235) PM - TG: L01-L05 (pp3-64) PM - TG: L09 (pp101-112) PM - TG: L17.Exts (p185) PM - TG: L18 (pp193-208) PM - TG: L19 (pp209-226) PM - TG: L21 (pp241-260) PM - TG: L26 (pp313-332)

KEY IDEA	S1b.	<p>The student produces evidence that demonstrates understanding of motions and forces, such as inertia and the net effects of balanced and unbalanced forces.</p> <p>CE - SG: L11 (pp120-133) CE - SG: L12 (pp134-153) CE - SG: L15 (pp170-189) CE - TG: L11 (pp149-162) CE - TG: L12 (pp163-176) CE - TG: L15 (pp197-218) EMM - SG: L01 (pp2-11) EMM - SG: L05-L13 (pp36-129) EMM - SG: L15-L22 (pp140-236) FS - TG: L09 (pp69-78) MD - TG: L03-5 (pp25-56) MD - TG: L07.Exts (pp68-69) MD - TG: L08-L1 (pp73-124) MD - TG: L15 (pp139-144) MD - TG: L17 (pp153-156) MM - TG: L01 (pp3-22) EMM - TG: L05-L13 (pp47-166) EMM - TG: L15-L22 (pp177-254) ES - SG: L15 (pp216-243) ES - TG: L15 (pp221-244)</p>
KEY IDEA	S1c.	<p>The student produces evidence that demonstrates understanding of transfer of energy, such as transformation of energy as heat; light, mechanical motion, and sound; and the nature of a chemical reaction.</p> <p>CE - TG: L19.Exts (pp274-275) EC - RB: (pp13-21) EC - RB: (pp24-28) EC - RB: (pp32-33) EC - RB: (pp36-38) EECD - SG: L01 (pp2-11) EECD - SG: L02 (pp12-25) EECD - SG: L05 (pp46-57) EECD - SG: L08-L10 (pp84-117) EECD - SG: L12 (pp122-133) EECD - SG: L15-L19 (pp156-209) EECD - TG: L01 (pp3-22) EECD - TG: L02 (pp23-36) EECD - TG: L05 (pp61-76) EECD - TG: L08 -10(pp111-156) EECD - TG: L12 (pp169-180) EECD - TG: L15-L19 (pp213-276) EMM - SG: L02-L04 (pp12-35) EMM - SG: L10 (pp92-97) EMM - SG: L17 (pp164-173) EMM - SG: L19 (pp188-199) EMM - SG: L20 (pp200-213) EMM - SG: L22 (pp226-236) EMM - TG: L02-L04 (pp23-46) EMM - TG: L09 (pp99-106) EMM - TG: L10 (pp107-130) EMM - TG: L17 (pp203-216) EMM - TG: L19-L22 (pp229-254) L - SG: L02 (pp20-31) L - SG: L07 (pp68-81) L - SG: L26 (pp294-297)</p>

		<p>L - TG: L02 (pp21-36) L - TG: L26 (pp349-367) MD - TG: L06 (pp57-64) MD - TG: L07 (pp65-72) MD - TG: L12 (pp109-116) MD - TG: L15 (pp139-144) M - TG: L01.Exts (p6) MM - RB: (pp45-46) MM - TG: L16 (pp99-102) PM - SG: L06 (pp56-63) PM - SG: L12 (pp106-111) PM - SG: L20 (pp170-185) PM - SG: L22-L26 (pp198-235) PM - TG: L06 (pp65-78) PM - TG: L12 (pp135-142) PM - TG: L16.Exts (p178) PM - TG: L20 (pp227-240) PM - TG: L22-L26 (pp263-332)</p>
STANDARD	NYC.S2.	Life Sciences Concepts: The student demonstrates conceptual understanding by using a concept accurately to explain observations and make predictions and by representing the concept in multiple ways (through words, diagrams, graphs, or charts, as appropriate). Both aspects of understanding - explaining and representing - are required to meet this standard.
KEY IDEA	S2a.	<p>The student produces evidence that demonstrates understanding of structure and function in living systems, such as the complementary nature of structure and function in cells, organs, tissues, organ systems, whole organisms, and ecosystems.</p> <p>AS - TG: L13.Exts (p138) HBS - TG: L07.Exts (pp74-75) OMM - SG: L01 (pp2-11) OMM - SG: L03 (pp28-37) OMM - SG: L11 (pp132-145) OMM - SG: L14 (pp172-179) OMM - TG: L01 (pp3-14) OMM - TG: L02.Exts (p25) OMM - TG: L03 (pp33-48) OMM - TG: L11 (pp185-200) OMM - TG: L14 (pp237-252) M - RB: (pp37-39) M - RB: (pp40-43) M - RB: (pp46-47) M - TG: L13.Exts (p74)</p>
KEY IDEA	S2b.	<p>The student produces evidence that demonstrates understanding of reproduction and heredity, such as sexual and asexual reproduction; and the role of genes and environment on trait expression.</p> <p>AS - TG: L11.Exts (p119) AS - TG: L13.Exts (p138) EP - RB: (pp11-13) EP - RB: (pp36-40) EP - RB: (pp44-46) EP - RB: (pp54-56) HBS - TG: L04.Exts (p35)</p>

		<p>M - TG: L13 (pp71-74) OMM - SG: L01 (pp2-11) OMM - SG: L03 (pp28-37) OMM - SG: L09 (pp106-119) OMM - SG: L12 (pp146-155) OMM - SG: L14 (pp172-179) OMM - SG: L17-L19 (pp194-235) OMM - TG: L01 (pp3-14) OMM - TG: L02.Exts (p25) OMM - TG: L03 (pp33-48) OMM - TG: L09 (pp151-166) OMM - TG: L12 (pp201-218) OMM - TG: L14 (pp237-252) OMM - TG: L17-L19 (pp281-330)</p>
KEY IDEA	S2c.	<p>The student produces evidence that demonstrates understanding of regulation and behavior, such as senses and behavior; and response to environmental stimuli.</p> <p>AS - RB: (pp40-42) AS - TG: L10 (pp107-114) AS - TG: L14.Exts (p145) FS - TG: L08 (pp61-68) M - TG: L02 (pp9-14) HBS - SG: L23 (pp190-195) HBS - TG: L23 (pp261-276) OMM - SG: L17 (pp194-203) OMM - TG: L02.Exts (p25) OMM - TG: L17 (pp281-292)</p>
KEY IDEA	S2d.	<p>The student produces evidence that demonstrates understanding of populations and ecosystems, such as the roles of producers, consumers, and decomposers in a food web; and the effects of resources and energy transfer on populations.</p> <p>AS - RB: (pp06-08) AS - RB: (pp12-15) AS - RB: (pp40-42) AS - TG: L01-L17 (pp3-172) E - RB: (pp07-23) E - RB: (pp26-37) E - RB: (pp40-51) E - RB: (pp54-61) E - TG: L01 (pp3-12) E - TG: L02 (pp13-24) E - TG: L04-L15 (pp39-164) E - TG: L17 (pp169-171) EP - RB: (pp24-25) ES - TG: L07.Exts (pp92-93) HBS - SG: L13 (pp110-119) HBS - TG: L13 (pp153-158) L - SG: L11 (pp116-131) L - TG: L11.Exts (p131) OMM - SG: L04 (pp38-45) OMM - SG: L12 (pp146-155) OMM - TG: L04 (pp49-56) OMM - TG: L12 (pp201-218)</p>

KEY IDEA	S2e.	<p>The student produces evidence that demonstrates understanding of evolution, diversity, and adaptation of organisms, such as common ancestry, speciation, adaptation, variation, and extinction.</p> <p>AS - RB: (pp06-11) AS - RB: (pp16-19) AS - RB: (pp30-32) AS - RB: (pp35-37) AS - RB: (pp45-49) AS - TG: L01-L04 (pp3-48) AS - TG: L06-L17 (pp65-172) EP - RB: (pp11-13) EP - RB: (pp30-33) EP - RB: (pp44-46) EP - RB: (pp57-59) E - RB: (pp11-13) E - RB: (pp20-23) EP - RB: (pp11-13) EP - RB: (pp30-33) EP - RB: (pp44-46) EP - RB: (pp57-59) FS - RB: (pp57-59) FS - RB: (pp60-61) HBS - TG: L22.Exts (p258) OMM - SG: L02 (pp12-27) OMM - SG: L04 (pp38-45) OMM - SG: L06 (pp64-81) OMM - SG: L13 (pp158-171) OMM - TG: L06 (pp73-104) OMM - TG: L10.Exts (pp175-176) OMM - TG: L13 (pp219-236) OMM - TG: L18.Exts (pp299-300) OMM - TG: L19.Exts (pp317-318)</p>
STANDARD	NYC.S3.	<p>Earth and Space Sciences Concepts: The student demonstrates conceptual understanding by using a concept accurately to explain observations and make predictions and by representing the concept in multiple ways (through words, diagrams, graphs, or charts, as appropriate). Both aspects of understanding - explaining and representing - are required to meet this standard.</p>
KEY IDEA	S3a.	<p>The student produces evidence that demonstrates understanding of structure of the Earth system, such as crustal plates and land forms; water and rock cycles; oceans, weather, and climate.</p> <p>CE - SG: L01-L04 (pp2-53) CE - SG: L06 (pp68-79) CE - SG: L07 (pp80-95) CE - SG: L10 (pp114-119) CE - SG: L13-L17 (pp154-197) CE - SG: L19 (pp210-223) CE - SG: L21 (pp232-239) CE - SG: L22 (pp240-251) CE - TG: L01-L03 (pp3-44) CE - TG: L04.Exts (p54) CE - TG: L06 (pp69-82) CE - TG: L07 (pp83-102) CE - TG: L10 (pp143-148)</p>

		<p>CE - TG: L13-L17 (pp177-256) CE - TG: L19 (pp265-278) CE - TG: L21 (pp293-302) CE - TG: L22 (pp303-316) ES - SG: L13 (pp174-199) ES - TG: L12 (pp181-196) ES - TG: L13 (pp197-208) L - TG: L03.Exts (p43) LW - RB: (pp07-11) LW - RB: (pp45-49) LW - TG: L01-L03 (pp3-36) LW - TG: L06 (pp63-74) LW - TG: L09.Exts (p103) LW - TG: L10-L12 (pp109-142) LW - TG: L14.Exts (p156) LW - TG: L15.Exts (p167) PM - SG: L01 (pp2-13) PM - SG: L05 (pp38-55)</p>
KEY IDEA	S3b.	<p>The student produces evidence that demonstrates understanding of Earth's history, such as Earth processes including erosion and movement of plates; change over time and fossil evidence.</p> <p>CE - SG: L10 (pp114-119) CE - SG: L13-L17 (pp154-197) CE - TG: L10 (pp143-148) CE - TG: L13-L17 (pp177-256) ES - SG: L13 (pp174-199) ES - SG: L18 (pp290-311) ES - TG: L13 (pp197-208) ES - TG: L18 (pp277-286) HBS - TG: L18.Exts (pp215-216) LW - RB: (pp07-11) LW - RB: (pp36-38) LW - RB: (pp53-56) LW - TG: L03-L07 (pp29-84) LW - TG: L10-L15 (pp109-172) PM - SG: L05 (pp38-55)</p>
KEY IDEA	S3c.	<p>The student produces evidence that demonstrates understanding of Earth in the Solar System, such as the predictable motion of planets, moons, and other objects in the Solar System including days, years, moon phases, and eclipses; and the role of the Sun as the major source of energy for phenomena on the Earth's surface.</p> <p>CE - SG: L07 (pp80-95) CE - TG: L01.Exts (pp10-11) CE - TG: L07 (pp83-102) ES - SG: L01-L22 (pp2-343) ES - TG: L01-L22 (pp3-326) L - SG: L05 (pp48-57) L - TG: L05 (pp59-72) MT - RB: (pp10-14) MT - RB: (pp15-17) MT - TG: L05 (pp49-58) MT - TG: L06 (pp59-66)</p>

KEY IDEA	S3d.	<p>The student produces evidence that demonstrates understanding of natural resource management.</p> <p>AS - RB: (pp40-42) AS - TG: G-App-A (pp173-174) CE - SG: G - (pp283-287) CE - SG: L16 (pp190-193) CE - SG: L19 (pp210-223) CE - SG: L20 (pp224-231) CE - SG: L23 (pp252-263) CE - TG: L16 (pp219-232) CE - TG: L19 (pp265-278) CE - TG: L20 (pp279-292) CE - TG: L23 (pp217-328) E - RB: (pp26-37) E - RB: (pp40-42) E - RB: (pp45-51) E - RB: (pp54-61) E - TG: G-App-B (pp177-179) EC - TG: G-App-A (pp87-88) EC - TG: L10 (pp53-58) EC - TG: L11 (pp59-64) EC - TG: L14 (pp73-76) EECD - SG: G - (pp253-254) EMM - SG: G - (pp237-239) EP - RB: (pp24-25) EP - TG: G (pp145-146) ES - SG: G - (pp345-350) FC - TG: G-App-A (pp157-159) FS - TG: G-App-B (pp143-144) HBS - SG: G - (pp197-200) L - SG: G - (pp299-303) L - SG: L02 (pp20-31) L - TG: L02 (pp21-36) LW - RB: (pp36-38) LW - TG: G-App-B (pp191-193) LW - TG: L06 (pp63-74) LW - TG: L08 (pp85-98) LW - TG: L09 (pp99-108) LW - TG: L14 (pp153-162) LW - TG: L15 (pp163-172) MD - TG: G-App-A (pp157-158) MM - TG: G (pp137-138) MM - TG: L03.Exts (pp18-19) MT - TG: G (pp179-180) OMM - SG: G - (pp245-249) PM - SG: G - (pp237-239) PM - SG: L12 (pp106-111) PM - TG: L12 (pp135-142) TP - TG: G (pp255-257) TP - TG: L02-L04 (pp29-74) TP - TG: L06 (pp91-106) TP - TG: L08 (pp117-126) TP - TG: L10 (pp137-148) TP - TG: L11 (pp149-156) TP - TG: L14 (pp171-184)</p>
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STANDARD	NYC.S4.	Scientific Connections and Applications: The student demonstrates conceptual understanding by using a concept accurately to explain observations and make predictions and by representing the concept in multiple ways (through words, diagrams, graphs, or charts, as appropriate). Both aspects of understanding - explaining and representing - are required to meet this standard.
KEY IDEA	S4a.	<p>The student produces evidence that demonstrates understanding of big ideas and unifying concepts, such as order and organization; models, form, and function; change and constancy; and cause and effect.</p> <p>CE - SG: L12-L15 (pp134-189) CE - SG: L17-L21 (pp194-239) CE - SG: L23-L25 (pp252-282) CE - TG: L12-L21 (pp163-302) CE - TG: L23-L25 (pp217-372) E - TG: L02-L07 (pp13-82) EC - TG: L02-L16 (pp7-84) EECD - SG: L04 (pp36-45) EECD - SG: L06 (pp58-69) EECD - SG: L09 (pp94-103) EECD - SG: L23 (pp232-243) EECD - SG: L24 (pp244-251) EECD - TG: L04 (pp49-60) EECD - TG: L06 (pp77-92) EECD - TG: L09 (pp123-142) EECD - TG: L23 (pp305-312) EECD - TG: L24 (pp313-326) EMM - SG: L12 (pp108-119) EMM - SG: L13 (pp120-129) EMM - SG: L18 (pp174-187) EMM - TG: L04 (pp37-46) EMM - TG: L12 (pp147-156) EMM - TG: L13 (pp157-166) EMM - TG: L18 (pp217-228) EP - TG: L06.Exts (p62) EP - TG: L09 (pp75-80) EP - TG: L10 (pp81-84) ES - SG: L03 (pp22-41) ES - SG: L04 (pp42-61) ES - SG: L18 (pp290-311) ES - SG: L21 (pp334-339) ES - TG: L03 (pp21-36) ES - TG: L04 (pp37-52) ES - TG: L18 (pp277-286) ES - TG: L20.Exts (p297) ES - TG: L21 (pp309-310) EP - TG: L06.Exts (p62) EP - TG: L09 (pp75-80) EP - TG: L10 (pp81-84) FC - TG: L02 (pp11-22) FC - TG: L04 (pp39-48) FS - TG: L06 (pp49-54) HBS - SG: L02 (pp8-13) HBS - SG: L06 (pp40-49) HBS - SG: L07 (pp50-59) HBS - SG: L10 (pp76-89) HBS - SG: L12 (pp98-109) HBS - SG: L14 (pp120-129)</p>

		<p>HBS - SG: L16 (pp138-143) HBS - SG: L19 (pp160-167) HBS - TG: L02 (pp11-18) HBS - TG: L06 (pp57-68) HBS - TG: L07 (pp69-80) HBS - TG: L10 (pp113-130) HBS - TG: L12 (pp137-152) HBS - TG: L14 (pp159-172) HBS - TG: L15.Exts (p178) HBS - TG: L16 (pp183-190) HBS - TG: L19 (pp219-234) L - SG: L07 (pp68-81) L - SG: L09 (pp92-107) L - SG: L19 (pp214-223) LW - TG: L02-L04 (pp11-50) LW - TG: L09-L14 (pp99-162) MD - TG: L08 (pp73-80) MD - TG: L12 (pp109-116) MT - TG: L06 (pp59-66) MT - TG: L13 (pp123-134) OMM - SG: L10 (pp120-131) OMM - TG: L10 (pp167-184) PM - TG: L07.Exts (p86) PM - TG: L08.Exts (p96) PM - TG: L12.Exts (p140) PM - TG: L14.Exts (p157) PM - TG: L15.Exts (p166) TP - TG: L09-L16 (pp127-206)</p>
KEY IDEA	S4b.	<p>The student produces evidence that demonstrates understanding of the designed world, such as the reciprocal nature of science and technology; the development of agricultural techniques; and the viability of technological designs.</p> <p>AS - TG: L08.Exts (p94)</p> <p>CE - SG: L10 (pp114-119) CE - SG: L11 (pp120-133) CE - SG: L14 (pp164-169) CE - TG: L03.Exts (pp35-36) CE - TG: L06.Exts (pp77-78) CE - TG: L10 (pp143-148) CE - TG: L11 (pp149-162) CE - TG: L14 (pp187-196) EC - RB: (pp17-21) EC - RB: (pp53-55) EC - TG: L16 (pp81-84) EECD - SG: L02 (pp12-25) EECD - SG: L24 (pp244-251) EECD - TG: L02 (pp23-36) EECD - TG: L03.Exts (pp47-48) EECD - TG: L07.Exts (pp105-106) EECD - TG: L12.Exts (pp177-178) EECD - TG: L13.Exts (p191) EECD - TG: L14.Exts (p210) EECD - TG: L21.Exts (p295) EECD - TG: L22.Exts (p304) EECD - TG: L23.Exts (p312) EECD - TG: L24 (pp313-326)</p>

		<p> EMM - SG: L16-L18 (pp148-187) EMM - SG: L20-L22 (pp200-236) EMM - TG: L06.Exts (pp68-69) EMM - TG: L08.Exts (pp92-93) EMM - TG: L09.Exts (p105) EMM - TG: L16 (pp185-202) EMM - TG: L17 (pp203-216) EMM - TG: L20 (pp235-238) EMM - TG: L21.Exts (p245) EMM - TG: L22 (pp247-254) EP - RB: (pp14-17) EP - RB: (pp41-46) EP - RB: (pp50-56) ES - SG: L10 (pp130-145) ES - SG: L20 (pp324-333) ES - SG: L21 (pp334-339) ES - TG: L10 (pp147-158) ES - TG: L20 (pp293-308) ES - TG: L21 (pp309-310) E - RB: (pp45-48) FC - TG: L02.Exts (p19) FS - RB: (pp34-35) HBS - TG: L01.Exts (p7) HBS - TG: L15.Exts (p178) HBS - TG: L18.Exts (pp215-216) HBS - TG: L19.Exts (p225) L - SG: L23 (pp252-265) L - TG: L01.Exts (p12) LW - RB: (pp21-29) LW - RB: (pp36-38) MD - RB: (pp29-36) MD - RB: (pp54-57) MD - RB: (pp62) MD - TG: L01 (pp1-14) MD - TG: L02 (pp15-24) MD - TG: L05 (pp47-56) MD - TG: L09 (pp81-90) MD - TG: L15 (pp139-144) MD - TG: L16 (pp145-152) MD - TG: L17 (pp153-156) MM - RB: (pp33-38) MM - RB: (pp41-44) MM - RB: (pp53-61) M - RB: (pp20-22) M - RB: (pp58-61) OMM - TG: L03.Exts (p41) PM - SG: L10 (pp86-97) PM - TG: L04.Exts (p45) PM - TG: L10 (pp113-124) TP - RB: (pp16-24) TP - RB: (pp49-51) TP - RB: (pp58-61) TP - TG: L02 (pp29-48) TP - TG: L03.Exts (pp54-55) TP - TG: L13-15 (pp165-196) TP - TG: L16.Exts (pp201-202) TP - TG: L17 (pp207-218) </p>
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KEY IDEA	S4c.	<p>The student produces evidence that demonstrates understanding of health, such as nutrition, exercise, and disease; effects of drugs and toxic substances; personal and environmental safety; and resources and environmental stress.</p> <p>AS - TG: L05.Exts (p58) CE - SG: L09-L12 (pp102-153) CE - TG: L09-L12 (pp127-176) EC - RB: (pp07-10) EECD - SG: L01 (pp2-11) EECD - SG: L05 (pp46-57) EECD - TG: L01 (pp3-22) EECD - TG: L05 (pp61-76) ES - SG: L06 (pp74-87) ES - TG: L03 (pp21-36) ES - TG: L06 (pp73-82) ES - TG: L10.Exts (p152) FC - RB: (pp07-33) FC - RB: (pp41-46) FC - RB: (pp49-61) FC - TG: L01 (pp3-10) FC - TG: L02 (pp11-22) FC - TG: L04-L06 (pp39-61) FC - TG: L08-L17 (pp79-156) HBS - SG: L03 (pp14-23) HBS - SG: L07 (pp50-59) HBS - SG: L09 (pp68-75) HBS - SG: L13 (pp110-119) HBS - SG: L16 (pp138-143) HBS - TG: L01 (pp3-10) HBS - TG: L0313 (pp19-158) HBS - TG: L14.Exts (p165) HBS - TG: L16 (pp183-190) HBS - TG: L19.Exts (p225) HBS - TG: L20.Exts (p239) LW - RB: (pp47-49) M - RB: (pp46-47) M - RB: (pp52-57) OMM - SG: L15 (pp180-187) OMM - TG: L15 (pp253-266) PM - SG: L04 (pp30-37) PM - SG: L06 (pp56-63) TP - RB: (pp10-11)</p>
KEY IDEA	S4d.	<p>The student produces evidence that demonstrates understanding of impact of technology, such as constraints and trade-offs; feedback; benefits and risks; and problems and solutions.</p> <p>AS - TG: L08.Exts (p94) CE - SG: L10 (pp114-119) CE - SG: L11 (pp120-133) CE - SG: L14 (pp164-169) CE - TG: L03.Exts (pp35-36) CE - TG: L06.Exts (pp77-78) CE - TG: L10 (pp143-148) CE - TG: L11 (pp149-162) CE - TG: L14 (pp187-196) EC - RB: (pp17-21)</p>

EC - RB: (pp53-55)
 EC - TG: L16 (pp81-84)
 EP - RB: (pp50-53)
 EECD - SG: L24 (pp244-251)
 EECD - TG: L02.Exts (pp35-36)
 EECD - TG: L03.Exts (pp47-48)
 EECD - TG: L07.Exts (pp105-106)
 EECD - TG: L12.Exts (pp177-178)
 EECD - TG: L13.Exts (p191)
 EECD - TG: L14.Exts (p210)
 EECD - TG: L21.Exts (p295)
 EECD - TG: L22.Exts (p304)
 EECD - TG: L23.Exts (p312)
 EECD - TG: L24 (pp313-326)
 EMM - SG: L16-l18 (pp148-187)
 EMM - SG: L20-l22 (pp200-236)
 EMM - TG: L06.Exts (pp68-69)
 EMM - TG: L08.Exts (pp92-93)
 EMM - TG: L09.Exts (p105)
 EMM - TG: L16 (pp185-202)
 EMM - TG: L17 (pp203-216)
 EMM - TG: L20-l22 (pp235-254)
 EP - RB: (pp50-53)
 ES - SG: L10 (pp130-145)
 ES - SG: L20 (pp324-333)
 ES - SG: L21 (pp334-339)
 ES - TG: L10 (pp147-158)
 ES - TG: L20 (pp293-308)
 ES - TG: L21 (pp309-310)
 FS - RB: (pp34-35)
 HBS - TG: L01.Exts (p7)
 HBS - TG: L15.Exts (p178)
 HBS - TG: L18.Exts (pp215-216)
 HBS - TG: L19.Exts (p225)
 L - SG: L23 (pp252-265)
 L - TG: L01.Exts (p12)
 LW - RB: (pp21-29)
 MD - RB: (pp29-361)
 MD - RB: (pp54-57)
 MD - RB: (pp62)
 MD - TG: L01 (pp1-14)
 MD - TG: L02 (pp15-24)
 MD - TG: L05 (pp47-56)
 MD - TG: L09 (pp81-90)
 MD - TG: L15 (pp139-144)
 MD - TG: L16 (pp145-152)
 MD - TG: L17 (pp153-156)
 M - RB: (pp20-22)
 M - RB: (pp58-61)
 MM - RB: (pp33-38)
 MM - RB: (pp41-44)
 MM - RB: (pp53-61)
 PM - SG: L10 (pp86-97)
 PM - TG: L04.Exts (p45)
 PM - TG: L10 (pp113-124)
 PM - TG: L21.Exts (p251)
 TP - RB: (pp16-24)

		<p>TP - RB: (pp49-51) TP - RB: (pp58-61) TP - TG: L02 (pp29-48) TP - TG: L03.Exts (pp54-55) TP - TG: L13-L18 (pp165-218)</p>
KEY IDEA	S4e.	<p>The student produces evidence that demonstrates understanding of impact of science, such as historical and contemporary contributions; and interactions between science and society.</p> <p>CE - SG: L09 (pp102-112) CE - SG: L10 (pp114-119) CE - TG: L09 (pp127-142) CE - TG: L10 (pp143-148) EC - RB: (pp07-12) EC - RB: (pp17-21) EP - RB: (pp11-13) EP - RB: (pp36-46) EP - RB: (pp54-56) E - RB: (pp07-10) E - RB: (pp54-61) EMM - SG: L01 (pp2-11) EMM - SG: L11 (pp100-107) EMM - SG: L14-L16 (pp130-161) EMM - TG: L14 (pp167-176) EP - RB: (pp11-13) EP - RB: (pp36-46) EP - RB: (pp54-56) ES - SG: L10 (pp130-145) ES - SG: L20 (pp324-333) ES - SG: L21 (pp334-339) ES - TG: L02.Exts (pp18-19) ES - TG: L10 (pp147-158) ES - TG: L20 (pp293-308) ES - TG: L21 (pp309-310) FS - RB: (pp07-26) FS - RB: (pp29-30) FS - RB: (pp34-35) FS - TG: L10 (pp79-86) FS - TG: L15 (pp119-128) HBS - TG: L01.Exts (p7) LW - RB: (pp07-09) LW - RB: (pp36-38) LW - RB: (pp41-44) LW - RB: (pp57-58) L - TG: L08.Exts (p105) L - TG: L16.Exts (p203) L - TG: L25.Exts (p342) MM - RB: (pp07-08) MM - RB: (pp28-29) MT - RB: (pp24-27) MT - RB: (pp35-38) M - RB: (pp52-55) OMM - SG: L02 (pp12-27) OMM - SG: L08 (pp96-105) OMM - SG: L13 (pp158-171) OMM - SG: L18 (pp204-215) OMM - SG: L19 (pp216-235)</p>

		<p> OMM - TG: L13 (pp219-236) PM - SG: L01 (pp2-13) PM - SG: L05 (pp38-55) PM - SG: L07 (pp64-73) PM - SG: L10 (pp86-97) PM - SG: L19 (pp162-167) PM - SG: L21-L23 (pp186-217) TP - RB: (pp10-24) TP - RB: (pp30-35) TP - RB: (pp49-51) TP - RB: (pp52-61) TP - TG: L01 (pp19-28) TP - TG: L05 (pp75-90) TP - TG: L14 (pp171-184) </p>
STANDARD	NYC.S5.	<p> Scientific Thinking: The student demonstrates scientific inquiry and problem solving by using thoughtful questioning and reasoning strategies, common sense and conceptual understanding from Science Standards 1 to 4, and appropriate methods to investigate the natural world; that is, the student: </p>
KEY IDEA	S5a.	<p> Frames questions to distinguish cause and effect; and identifies or controls variables in experimental and non-experimental research settings. </p> <p> CE - SG: L13 (pp154-163) CE - SG: L18-L21 (pp200-239) CE - SG: L23 (pp252-263) CE - SG: L25 (pp274-282) CE - TG: L13 (pp177-186) CE - TG: L18 (pp257-264) CE - TG: L19 (pp265-278) CE - TG: L20 (pp279-292) CE - TG: L21 (pp293-302) CE - TG: L23 (pp217-328) CE - TG: L25 (pp347-372) EECD - SG: L23 (pp232-243) EECD - TG: L23 (pp305-312) EMM - SG: L18 (pp174-187) EMM - TG: L18 (pp217-228) EP - TG: L01-L05 (pp9-56) EP - TG: L12 (pp91-100) EP - TG: L14 (pp105-114) HBS - TG: L15.Exts (p178) HBS - TG: L16.Exts (p188) LW - TG: L09-L11 (pp99-128) LW - TG: L13-L15 (pp143-172) MD - TG: L08 (pp73-80) MD - TG: L12 (pp109-116) MM - TG: L10.Exts (p69) MT - TG: L07 (pp67-74) MT - TG: L08 (pp75-86) MT - TG: L10 (pp95-108) MT - TG: L12 (pp115-122) MT - TG: L15 (pp139-144) TP - TG: L03 (pp49-60) TP - TG: L04 (pp61-74) TP - TG: L06 (pp91-106) </p>

		<p>TP - TG: L07 (pp107-116) TP - TG: L08 (pp117-126) TP - TG: L10 (pp137-148) TP - TG: L11 (pp149-156) TP - TG: L14 (pp171-184)</p>
KEY IDEA	S5b.	<p>Uses concepts from Science Standards 1 to 4 to explain a variety of observations and phenomena.</p> <p>AS - TG: L02 (pp11-20) AS - TG: L04-L09 (pp37-106) AS - TG: L11 (pp115-122) AS - TG: L12 (pp123-134) AS - TG: L17 (pp169-172) CE - SG: L01-L25 (pp2-282) CE - TG: L01-L25 (pp3-372) EECD - SG: L01-L24 (pp2-251) EECD - TG: L01-L24 (pp3-326) EMM - SG: G - (pp237-239) EMM - SG: L01-L22 (pp2-236) EMM - TG: L01-L22 (pp3-254) EP - TG: L01-L16 (pp9-128) ES - SG: L01 (pp2-11) ES - SG: L04 (pp42-61) ES - SG: L05 (pp62-73) ES - SG: L09-L11 (pp122-159) ES - SG: L13 (pp174-199) ES - SG: L14 (pp200-215) ES - SG: L18-L20 (pp290-333) ES - SG: L22 (pp340-343) ES - TG: L01 (pp3-10) ES - TG: L04 (pp37-52) ES - TG: L05 (pp53-72) ES - TG: L09-L11 (pp121-180) ES - TG: L13 (pp197-208) ES - TG: L14 (pp209-220) ES - TG: L18-L20 (pp277-308) ES - TG: L22 (pp311-326) EC - TG: L01-L17 (pp3-86) E - RB: (pp43-44) E - TG: L01-L17 (pp3-171) FC - TG: L02-L16 (pp11-154) FS - TG: L01-L17 (pp3-136) HBS - SG: L02-L23 (pp8-195) HBS - TG: L01-L23 (pp3-276) L - SG: L01-L26 (pp2-297) L - TG: L01-L26 (pp3-367) LW - RB: (pp07-18) LW - RB: (pp21-38) LW - RB: (pp41-61) LW - TG: L01-L17 (pp3-186) MD - TG: L01-L15 (pp1-144) MD - TG: L17 (pp153-156) M - TG: L01-L17 (pp3-88) MM - RB: (pp14-16) MM - RB: (pp33-38) MM - TG: L14 (pp89-94) MM - TG: L16 (pp99-102)</p>

		<p>MM - TG: L17 (pp103-108) MT - TG: L03 (pp31-42) MT - TG: L05 (pp49-58) MT - TG: L06.Exts (p63) MT - TG: L11 (pp109-114) OMM - SG: L01-L20 (pp2-243) OMM - TG: L01-L20 (pp3-350) PM - SG: L01-L26 (pp2-235) PM - TG: L01-L26 (pp3-332) TP - RB: (pp16-19) TP - TG: L01-L18 (pp19-218)</p>
KEY IDEA	S5c.	<p>Uses evidence from reliable sources to develop descriptions, explanations, and models.</p> <p>CE - SG: L12 (pp134-153) CE - SG: L15 (pp170-189) CE - SG: L17 (pp194-197) CE - SG: L19 (pp210-223) CE - SG: L20 (pp224-231) CE - SG: L24 (pp264-273) CE - SG: L25 (pp274-282) CE - TG: L12 (pp163-176) CE - TG: L14.Exts (pp193-194) CE - TG: L15 (pp197-218) CE - TG: L17 (pp233-256) CE - TG: L19 (pp265-278) CE - TG: L20 (pp279-292) CE - TG: L23.Exts (pp325-326) CE - TG: L24 (pp329-346) CE - TG: L25 (pp347-372) EECD - SG: L01-L10 (pp2-117) EECD - SG: L15 (pp156-167) EECD - SG: L17 (pp174-185) EECD - SG: L23 (pp232-243) EECD - SG: L24 (pp244-251) EECD - TG: L01-L04 (pp3-60) EECD - TG: L06 (pp77-92) EECD - TG: L07 (pp93-110) EECD - TG: L08.Exts (p119) EECD - TG: L09 (pp123-142) EECD - TG: L10 (pp143-156) EECD - TG: L15 (pp213-226) EECD - TG: L17 (pp240-248) EECD - TG: L23 (pp305-312) EECD - TG: L24 (pp313-326) EMM - SG: L12 (pp108-119) EMM - SG: L13 (pp120-129) EMM - TG: L04 (pp37-46) EMM - TG: L12 (pp147-156) EMM - TG: L13 (pp157-166) EMM - TG: L20.Exts (p238) EC - TG: L02-L16 (pp7-84) EP - TG: L01 (pp9-20) EP - TG: L06.Exts (p62) EP - TG: L16 (pp123-128) ES - SG: L03 (pp22-41) ES - SG: L04 (pp42-61)</p>

		<p> ES - SG: L18 (pp290-311) ES - TG: L03 (pp21-36) ES - TG: L04 (pp37-52) ES - TG: L18 (pp277-286) ES - TG: L20.Exts (p297) E - TG: L02-L07 (pp13-82) FC - TG: L08.Exts (p81) FS - TG: L02 (pp13-20) FS - TG: L06 (pp49-54) FS - TG: L07.Exts (pp57-58) HBS - SG: L02 (pp8-13) HBS - SG: L03 (pp14-23) HBS - SG: L06 (pp40-49) HBS - SG: L07 (pp50-59) HBS - SG: L09 (pp68-75) HBS - SG: L10 (pp76-89) HBS - SG: L12 (pp98-109) HBS - SG: L14 (pp120-129) HBS - SG: L16 (pp138-143) HBS - SG: L19 (pp160-167) HBS - TG: L02 (pp11-18) HBS - TG: L03 (pp19-28) HBS - TG: L06 (pp57-68) HBS - TG: L07 (pp69-80) HBS - TG: L09 (pp103-112) HBS - TG: L10 (pp113-130) HBS - TG: L12 (pp137-152) HBS - TG: L14 (pp159-172) HBS - TG: L16 (pp183-190) HBS - TG: L19 (pp219-234) HBS - TG: L20.Exts (p239) L - SG: L07 (pp68-81) L - SG: L09 (pp92-107) L - SG: L19 (pp214-223) L - TG: L12.Exts (p140) L - TG: L19.Exts (p257) LW - TG: L01-L04 (pp3-50) LW - TG: L09 (pp99-108) LW - TG: L10 (pp109-118) LW - TG: L12 (pp129-142) LW - TG: L17 (pp182-186) MM - TG: L17 (pp103-108) MT - TG: L06 (pp59-66) MT - TG: L11 (pp109-114) MT - TG: L13 (pp123-134) M - TG: L06 (pp31-36) M - TG: L10-L12 (pp55-70) M - TG: L14-L16 (pp75-86) OMM - SG: L10 (pp120-131) OMM - SG: L15 (pp180-187) OMM - TG: L10 (pp167-184) OMM - TG: L15 (pp253-266) PM - TG: L07.Exts (p86) PM - TG: L08.Exts (p96) PM - TG: L12.Exts (p140) PM - TG: L14.Exts (p157) PM - TG: L15.Exts (p166) </p>
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		TP - TG: L12.Exts (p161)
KEY IDEA	S5d.	<p>Proposes, recognizes, analyzes, considers, and critiques alternative explanations; and distinguishes between fact and opinion.</p> <p>CE - SG: L09 (pp102-112) CE - TG: L09 (pp127-142) EC - TG: L02.Exts (p13) EC - TG: L16.Exts (p83) FC - TG: L14 (pp125-130) MT - TG: L14 (pp135-138) MT - TG: L16 (pp145-148)</p>
KEY IDEA	S5e.	<p>Identifies problems; proposes and implements solutions; and evaluates the accuracy, design, and outcomes of investigations.</p> <p>AS - TG: L16 (pp165-168) CE - SG: L09 (pp102-112) CE - TG: L09 (pp127-142) CE - TG: L23.Exts (pp325-326) EC - TG: L02.Exts (p13) EC - TG: L06.Exts (p36) EC - TG: L11.Exts (p63) EC - TG: L16.Exts (p83) EC - TG: L17 (pp85-86) EP - TG: L16 (pp123-128) EECD - SG: L02 (pp12-25) EECD - TG: L02 (pp23-36) EMM - TG: L11 (pp131-146) EP - TG: L15 (pp115-122) EP - TG: L16 (pp123-128) ES - SG: L21 (pp334-339) ES - TG: L20.Exts (p297) ES - TG: L21 (pp309-310) FC - TG: L03 (pp23-38) FC - TG: L05 (pp49-56) FC - TG: L08 (pp79-84) FC - TG: L11 (pp101-106) FC - TG: L14 (pp125-130) HBS - SG: L10 (pp76-89) HBS - TG: L10 (pp113-130) L - SG: L07 (pp68-81) L - SG: L19 (pp214-223) L - SG: L26 (pp294-297) L - TG: L07 (pp83-98) L - TG: L19 (pp247-274) LW - TG: L16 (pp173-182) MD - TG: L05 (pp47-56) MD - TG: L06 (pp57-64) MD - TG: L08 (pp73-80) MD - TG: L13-L16 (pp117-152) MT - TG: L06 (pp59-66) MT - TG: L11 (pp109-114) MT - TG: L14 (pp135-138) MT - TG: L16 (pp145-148) PM - SG: L04 (pp30-37) PM - SG: L13 (pp112-115) PM - SG: L26 (pp230-235)</p>

		PM - TG: L04 (pp39-48) PM - TG: L13 (pp143-152) PM - TG: L26 (pp313-332) TP - TG: L13-L18 (pp165-218)
KEY IDEA	S5f.	Works individually and in teams to collect and share information and ideas. AS - TG: L01-L17 (pp3-172) CE - SG: L01-L25 (pp2-282) CE - TG: L01-L25 (pp3-372) CE - TG: L02 (pp17-26) EECD - SG: L03 (pp26-35) EECD - SG: L08 (pp84-93) EECD - SG: L13 (pp134-141) EECD - TG: L03 (pp37-48) EECD - TG: L08 (pp111-122) EECD - TG: L13 (pp181-204) EMM - SG: G - (pp237-239) EMM - SG: L01-L21 (pp2-225) EMM - TG: L01-L21 (pp3-246) EC - TG: L01-L17 (pp3-86) EP - TG: L02 (pp21-30) EP - TG: L03 (pp31-38) EP - TG: L06 (pp57-64) EP - TG: L08-L13 (pp71-104) ES - SG: L01 (pp2-11) ES - SG: L05 (pp62-73) ES - SG: L09-L11 (pp122-159) ES - SG: L13 (pp174-199) ES - SG: L14 (pp200-215) ES - SG: L18 (pp290-311) ES - SG: L19 (pp312-323) ES - SG: L22 (pp340-343) ES - TG: L01 (pp3-10) ES - TG: L05 (pp53-72) ES - TG: L09 -L11(pp121-180) ES - TG: L13 (pp197-208) ES - TG: L14 (pp209-220) ES - TG: L18 (pp277-286) ES - TG: L19 (pp287-292) ES - TG: L22 (pp311-326) E - TG: L02-L17 (pp13-171) FC - TG: L01-L03 (pp3-38) FC - TG: L05-L12 (pp49-116) FC - TG: L14 (pp125-130) FC - TG: L16 (pp149-154) FC - TG: L17 (pp155-156) FS - TG: L01-L17 (pp3-136) HBS - SG: L02 (pp8-13) HBS - SG: L17 (pp144-147) HBS - SG: L20 (pp168-173) HBS - SG: L21 (pp174-181) HBS - TG: L02 (pp11-18) HBS - TG: L09 (pp103-112) HBS - TG: L17 (pp191-208) HBS - TG: L20 (p 235-244) HBS - TG: L21 (pp245-252) L - SG: L01 (pp2-19)

		<p>L - SG: L03 (pp32-39) L - SG: L07 (pp68-81) L - SG: L08 (pp82-91) L - SG: L10 (pp108-115) L - SG: L12 (pp132-137) L - SG: L15 (pp154-165) L - SG: L16 (pp166-185) L - SG: L18 (pp200-213) L - SG: L22 (pp244-251) L - SG: L23 (pp252-265) L - SG: L25 (pp284-293) L - TG: L01-L03 (pp3-48) L - TG: L07 (pp83-98) L - TG: L08 (pp99-106) L - TG: L10 (pp119-126) L - TG: L12 (pp137-152) L - TG: L15 (pp181-194) L - TG: L16 (pp195-204) L - TG: L18 (pp225-246) L - TG: L22 (pp305-312) L - TG: L23 (pp313-318) L - TG: L25 (pp335-348) LW - TG: L01-L09 (pp3-108) LW - TG: L11-L17(pp119-186) M - TG: L01-L17 (pp3-88) MD - TG: L01 (pp1-14) MD - TG: L03-L17 (pp25-156) MM - TG: L01 (pp7-10) MM - TG: L13 (pp83-88) MM - TG: L16 (pp99-102) MM - TG: L17 (pp103-108) MT - TG: L02 (pp21-30) MT - TG: L04 (pp43-48) MT - TG: L08 (pp75-86) MT - TG: L11 (pp109-114) MT - TG: L16.Exts (p148) OMM - SG: L01-L20 (pp2-243) OMM - TG: L01-L20 (pp3-350) PM - SG: L01-L08 (pp2-77) PM - SG: L10-L18 (pp86-161) PM - SG: L21-L25 (pp186-229) PM - TG: L01-L08 (pp3-100) PM - TG: L10-L18 (pp113-208) PM - TG: L20-L25 (pp227-312) TP - TG: L01-L18 (pp19-218)</p>
STANDARD	NYC.S6.	Scientific Tools and Technologies: The student demonstrates competence with the tools and technologies of science by using them to collect data, make observations, analyze results, and accomplish tasks effectively; that is, the student:
KEY IDEA	S6a.	<p>Uses technology and tools (such as traditional laboratory equipment, video, and computer aids) to observe and measure objects, organisms, and phenomena, directly, indirectly, and remotely.</p> <p>AS - TG: L02-L15 (pp11-164) CE - SG: L12 (pp134-153) CE - SG: L14 (pp164-169)</p>

CE - SG: L16 (pp190-193)
 CE - SG: L22 (pp240-251)
 CE - SG: L23 (pp252-263)
 CE - TG: L12 (pp163-176)
 CE - TG: L14 (pp187-196)
 CE - TG: L16 (pp219-232)
 CE - TG: L22 (pp303-316)
 CE - TG: L23 (pp217-328)
 EC - TG: L01-L17 (pp3-86)
 EECD - SG: L06 (pp58-69)
 EECD - SG: L07 (pp70-83)
 EECD - SG: L09 (pp94-103)
 EECD - TG: L06 (pp77-92)
 EECD - TG: L07 (pp93-110)
 EECD - TG: L09 (pp123-142)
 EMM - SG: G - (pp237-239)
 EMM - SG: L01-L13 (pp2-129)
 EMM - SG: L16 (pp148-161)
 EMM - SG: L18-L21 (pp174-225)
 EMM - TG: L01-L13 (pp3-166)
 EMM - TG: L16 (pp185-202)
 EMM - TG: L18-L21 (pp217-246)
 EP - TG: L02 (pp21-30)
 EP - TG: L06 (pp57-64)
 ES - SG: L02 (pp12-21)
 ES - SG: L04-L22 (pp42-343)
 ES - TG: L01-L22 (pp3-326)
 FS - TG: L01-L17 (pp3-136)
 HBS - TG: L09 (pp103-112)
 L - SG: L01-L26 (pp2-297)
 L - TG: L01-L12 (pp3-152)
 L - TG: L14 (pp169-180)
 L - TG: L15 (pp181-194)
 L - TG: L16.Exts (p203)
 L - TG: L17-L26 (pp205-367)
 LW - RB: (pp32-35)
 LW - TG: L04-L16 (pp37-182)
 MD - TG: L02 (pp15-24)
 MD - TG: L03 (pp25-34)
 MD - TG: L06 (pp57-64)
 MD - TG: L08 (pp73-80)
 MD - TG: L09 (pp81-90)
 MD - TG: L11-L14 (pp101-138)
 MD - TG: L16 (pp145-152)
 M - RB: (pp07-25)
 M - RB: (pp28-43)
 M - RB: (pp46-61)
 M - TG: L01-L06(pp3-36)
 M - TG: L08-L17 (pp43-88)
 MT - TG: L02 (pp21-30)
 OMM - SG: L02-I20 (pp12-243)
 OMM - TG: L02-I20 (pp15-350)
 PM - SG: L01-I09 (pp2-83)
 PM - SG: L11-I26 (pp98-235)
 PM - TG: L01-I09 (pp3-112)
 PM - TG: L11-I26 (pp125-332)
 TP - TG: L02-L11 (pp29-156)

		TP - TG: L13 (pp165-170) TP - TG: L14 (pp171-184) TP - TG: L16-L18 (pp197-218)
KEY IDEA	S6b.	Records and stores data using a variety of formats, such as data bases, audiotapes, and videotapes. AS - TG: L04-L09 (pp37-106) AS - TG: L11 (pp115-122) AS - TG: L12 (pp123-134) CE - SG: L01-L25 (pp2-282) CE - TG: L01-L25 (pp3-372) EECD - SG: L03 (pp26-35) EECD - SG: L08 (pp84-93) EECD - SG: L13 (pp134-141) EECD - TG: L03 (pp37-48) EECD - TG: L08 (pp111-122) EECD - TG: L13 (pp181-204) EMM - SG: L10 (pp92-97) EMM - SG: L13 (pp120-129) EMM - SG: L15 (pp140-147) EMM - TG: L04 (pp37-46) EMM - TG: L07 (pp75-84) EMM - TG: L10 (pp107-130) EMM - TG: L13 (pp157-166) EMM - TG: L15 (pp177-184) EP - TG: L03 (pp31-38) EP - TG: L06 (pp57-64) EP - TG: L08 (pp71-74) EP - TG: L12 (pp91-100) ES - SG: L01 (pp2-11) ES - SG: L05 (pp62-73) ES - SG: L09 (pp122-127) ES - SG: L11 (pp146-159) ES - SG: L14 (pp200-215) ES - SG: L18 (pp290-311) ES - TG: L01 (pp3-10) ES - TG: L05 (pp53-72) ES - TG: L09 (pp121-146) ES - TG: L11 (pp159-180) ES - TG: L14 (pp209-220) ES - TG: L18 (pp277-286) EC - TG: L01-L17 (pp3-86) EP - TG: L03 (pp31-38) EP - TG: L06 (pp57-64) EP - TG: L08 (pp71-74) EP - TG: L12 (pp91-100) E - TG: L03 (pp25-38) E - TG: L04 (pp39-52) E - TG: L06 (pp61-74) E - TG: L11 (pp111-116) E - TG: L16.Exts (p167) FC - TG: L01 (pp3-10) FC - TG: L06 (pp57-68) FC - TG: L09 (pp85-94) FC - TG: L10 (pp95-100) FC - TG: L12 (pp107-116) FC - TG: L16 (pp149-154)

		FC - TG: L17 (pp155-156) FS - TG: L01-L17 (pp3-136) HBS - SG: L20 (pp168-173) HBS - SG: L21 (pp174-181) HBS - TG: L09 (pp103-112) HBS - TG: L20 (p 235-244) HBS - TG: L21 (pp245-252) LW - TG: L01-L07 (pp3-84) LW - TG: L09 (pp99-108) LW - TG: L13 (pp143-152) LW - TG: L14 (pp153-162) LW - TG: L17 (pp182-186) MD - TG: L03 (pp25-34) MD - TG: L04 (pp35-46) MD - TG: L05 (pp47-56) MD - TG: L07 (pp65-72) MD - TG: L14 (pp125-138) M - TG: L01-L17 (pp3-88) MM - TG: L17 (pp103-108) MT - TG: L02 (pp21-30) MT - TG: L08 (pp75-86) MT - TG: L11 (pp109-114) MT - TG: L16.Exts (p148) PM - SG: L11 (pp98-105) PM - TG: L08.Exts (p96) PM - TG: L11 (pp125-134) TP - TG: L05 (pp75-90) TP - TG: L08 (pp117-126) TP - TG: L15 (pp185-196)
KEY IDEA	S6d.	Acquires information from multiple sources, such as print, the Internet, computer data bases, and experimentation. AS - TG: L14 (pp143-156) CE - TG: L09.Exts (p132) CE - TG: L13.Exts (p182) FC - TG: L06 (pp57-68) FC - TG: L08-10 (pp79-100) FC - TG: L12 (pp107-116) FC - TG: L13 (pp117-124) FC - TG: L15 (pp131-148) HBS - SG: L09 (pp68-75) HBS - TG: L09 (pp103-112) HBS - TG: L12.Exts (pp147-148) LW - TG: L02 (pp11-28) LW - TG: L06 (pp63-74) LW - TG: L07 (pp75-84) LW - TG: L12 (pp129-142) LW - TG: L16 (pp173-182) PM - TG: L16.Exts (p178) PM - TG: L23.Exts (p284) TP - TG: L15.Exts (pp191-192)
KEY IDEA	S6e.	Recognizes sources of bias in data, such as observer and sampling biases. FC - TG: L03 (pp23-38) FC - TG: L08 (pp79-84) L - SG: L26 (pp294-297)

		<p>L - TG: L26 (pp349-367) PM - SG: L04 (pp30-37) PM - SG: L13 (pp112-115) PM - SG: L26 (pp230-235) PM - TG: L04 (pp39-48) PM - TG: L13 (pp143-152) PM - TG: L26 (pp313-332)</p>
STANDARD	NYC.S7.	Scientific Communication: The student demonstrates effective scientific communication by clearly describing aspects of the natural world using accurate data, graphs, or other appropriate media to convey depth of conceptual understanding in science; that is, the student:
KEY IDEA	S7a.	<p>Represents data and results in multiple ways, such as numbers, tables, and graphs; drawings, diagrams, and artwork; and technical and creative writing.</p> <p>AS - RB: (pp58-61) AS - TG: L02-L06 (pp11-74) AS - TG: L08 (pp87-96) AS - TG: L09 (pp97-106) AS - TG: L15-L17 (pp157-172) CE - SG: L01-L25 (pp2-282) CE - TG: L01-L25 (pp3-372) EC - RB: (pp07-21) EC - RB: (pp24-44) EC - RB: (pp47-61) EC - TG: L01-L17 (pp3-86) EECD - SG: L03 (pp26-35) EECD - SG: L04 (pp36-45) EECD - SG: L05 (pp46-57) EECD - SG: L08 (pp84-93) EECD - SG: L11-L18 (pp118-195) EECD - SG: L20 (pp210-213) EECD - SG: L24 (pp244-251) EECD - TG: L02.Exts (pp35-36) EECD - TG: L03-L05 (pp37-76) EECD - TG: L06.Exts (p92) EECD - TG: L08 (pp111-122) EECD - TG: L09.Exts (pp134-135) EECD - TG: L10.Exts (pp152-153) EECD - TG: L11-L18 (pp157-262) EECD - TG: L20 (pp277-290) EECD - TG: L21.Exts (p295) EECD - TG: L22.Exts (p304) EECD - TG: L24 (pp313-326) EMM - SG: L04 (pp26-35) EMM - SG: L05 (pp36-47) EMM - SG: L08-L13 (pp72-129) EMM - SG: L15 (pp140-147) EMM - SG: L18 (pp174-187) EMM - TG: L04 (pp37-46) EMM - TG: L05 (pp47-58) EMM - TG: L06 (pp59-74) EMM - TG: L08-L13 (pp85-166) EMM - TG: L15 (pp177-184) EMM - TG: L16 (pp185-202)</p>

EMM - TG: L18 (pp217-228)
 EMM - TG: L19 (pp229-234)
 EP - RB: (pp07-10)
 EP - RB: (pp30-33)
 EP - RB: (pp50-53)
 EP - RB: (pp57-59)
 EP - TG: L01-L12 (pp9-100)
 EP - TG: L14 (pp105-114)
 EP - TG: L15.Exts (p117)
 EP - TG: L16 (pp123-128)
 ES - SG: L01 (pp2-11)
 ES - SG: L03-L05 (pp22-73)
 ES - SG: L09-L11 (pp122-159)
 ES - SG: L14 (pp200-215)
 ES - SG: L18 (pp290-311)
 ES - SG: L19 (pp312-323)
 ES - SG: L21 (pp334-339)
 ES - SG: L22 (pp340-343)
 ES - TG: L01 (pp3-10)
 ES - TG: L03-L05 (pp21-72)
 ES - TG: L09-L11 (pp121-180)
 ES - TG: L13 (pp197-208)
 ES - TG: L14 (pp209-220)
 ES - TG: L18 (pp277-286)
 ES - TG: L19 (pp287-292)
 ES - TG: L20.Exts (p297)
 ES - TG: L21 (pp309-310)
 ES - TG: L22 (pp311-326)
 E - RB: (pp07-23)
 E - RB: (pp26-37)
 E - RB: (pp40-51)
 E - RB: (pp54-61)
 E - TG: L02-L17 (pp13-171)
 FC - TG: L01-L17 (pp3-156)
 FS - TG: L01-L17 (pp3-136)
 HBS - SG: L09 (pp68-75)
 HBS - SG: L21 (pp174-181)
 HBS - TG: L04.Exts (p35)
 HBS - TG: L09 (pp103-112)
 HBS - TG: L14.Exts (p165)
 HBS - TG: L15.Exts (p178)
 HBS - TG: L19.Exts (p225)
 HBS - TG: L20.Exts (p239)
 HBS - TG: L21 (pp245-252)
 HBS - TG: L22.Exts (p258)
 L - SG: L01 (pp2-19)
 L - SG: L02 (pp20-31)
 L - SG: L04-L13 (pp40-141)
 L - SG: L15-L26 (pp154-297)
 L - TG: L01 (pp3-20)
 L - TG: L02 (pp21-36)
 L - TG: L04-L13 (pp49-168)
 L - TG: L05 (pp59-72)
 L - TG: L15-L26 (pp181-367)
 LW - TG: L01-L17 (pp3-186)
 MD - TG: L01-L17 (pp1-156)
 MM - RB: (pp09-11)

		<p>MM - RB: (pp14-20) MM - RB: (pp23-25) MM - RB: (pp28-38) MM - RB: (pp41-50) MM - RB: (pp53-54) MM - RB: (pp58-61) MM - TG: L06.Exts (p39) MM - TG: L09.Exts (p62) MM - TG: L11.Exts (p75) MM - TG: L13-L17 (pp83-108) MT - RB: (pp15-17) MT - RB: (pp24-38) MT - TG: L03 (pp31-42) MT - TG: L04 (pp43-48) MT - TG: L06 (pp59-66) MT - TG: L08 (pp75-86) MT - TG: L09 (pp87-94) MT - TG: L11 (pp109-114) MT - TG: L12 (pp115-122) MT - TG: L14 (pp135-138) MT - TG: L17 (pp149-150) OMM - SG: L02-L10 (pp12-131) OMM - SG: L16 (pp188-193) OMM - SG: L17 (pp194-203) OMM - TG: L02-L11 (pp15-200) OMM - TG: L16 (pp267-280) OMM - TG: L17 (pp281-292) PM - SG: L01-L26 (pp2-235) PM - TG: L01-L26 (pp3-332) TP - RB: (pp07-24) TP - RB: (pp27-35) TP - RB: (pp38-46) TP - RB: (pp49-61) TP - TG: L01-L10 (pp19-148) TP - TG: L12.Exts (p161) TP - TG: L13.Exts (pp167-168) TP - TG: L14 (pp171-184) TP - TG: L15 (pp185-196) TP - TG: L16 (pp197-206)</p>
KEY IDEA	S7b.	<p>Argues from evidence, such as data produced through his or her own experimentation or by others.</p> <p>AS - TG: L16 (pp165-168) CE - SG: L25 (pp274-282) CE - TG: L25 (pp347-372) EC - TG: L15 (pp77-80) EMM - SG: L17 (pp164-173) EMM - SG: L22 (pp226-236) EMM - TG: L17 (pp203-216) EMM - TG: L22 (pp247-254) EP - TG: L15.Exts (p117) ES - SG: L21 (pp334-339) ES - TG: L21 (pp309-310) E - TG: L03.Exts (p29) FC - TG: L13 (pp117-124) HBS - SG: L09 (pp68-75) HBS - TG: L09 (pp103-112)</p>

		<p>L - SG: L21 (pp230-243) L - TG: L21 (pp295-304) MD - TG: L16 (pp145-152) MM - TG: L09.Exts (p62) OMM - TG: L13 (pp219-236) PM - SG: L10 (pp86-97) PM - TG: L10 (pp113-124) TP - TG: L17 (pp207-214)</p>
KEY IDEA	S7c.	<p>Critiques published materials. AS - TG: L16 (pp165-168) CE - TG: L23.Exts (pp325-326) EC - TG: L11.Exts (p63) EC - TG: L17 (pp85-86) EECD - SG: L02 (pp12-25) EECD - TG: L02 (pp23-36) EMM - TG: L11 (pp131-146) EP - TG: L15 (pp115-122) EP - TG: L16 (pp123-128) ES - SG: L21 (pp334-339) ES - TG: L20.Exts (p297) ES - TG: L21 (pp309-310) FC - TG: L03 (pp23-38) FC - TG: L05 (pp49-56) FC - TG: L11 (pp101-106) HBS - SG: L10 (pp76-89) HBS - TG: L10 (pp113-130) L - SG: L07 (pp68-81) L - SG: L19 (pp214-223) L - TG: L07 (pp83-98) L - TG: L19 (pp247-274) LW - TG: L16 (pp173-182) MD - TG: L05 (pp47-56) MD - TG: L06 (pp57-64) MD - TG: L08 (pp73-80) MD - TG: L13-L16 (pp117-152) MT - TG: L06 (pp59-66) MT - TG: L11 (pp109-114) MT - TG: L14 (pp135-138) TP - TG: L13 –L18(pp165-218)</p>
KEY IDEA	S7d.	<p>Explains a scientific concept or procedure to other students. EECD - SG: L01-I04 (pp2-45) EECD - SG: L06 (pp58-69) EECD - SG: L07 (pp70-83) EECD - SG: L10 (pp104-117) EECD - SG: L15 (pp156-167) EECD - SG: L17 (pp174-185) EECD - SG: L23 (pp232-243) EECD - SG: L24 (pp244-251) EECD - TG: L01-L04 (pp3-60) EECD - TG: L06 (pp77-92) EECD - TG: L07 (pp93-110) EECD - TG: L08.Exts (p119) EECD - TG: L10 (pp143-156) EECD - TG: L15 (pp213-226)</p>

		<p>EECD - TG: L17 (pp240-248) EECD - TG: L23 (pp305-312) EECD - TG: L24 (pp313-326) EMM - TG: L20.Exts (p238) EP - TG: L01 (pp9-20) EP - TG: L16 (pp123-128) FC - TG: L08.Exts (p81) FS - TG: L02 (pp13-20) FS - TG: L06.Exts (p52) FS - TG: L07.Exts (pp57-58) HBS - SG: L03 (pp14-23) HBS - SG: L06 (pp40-49) HBS - SG: L09 (pp68-75) HBS - SG: L14 (pp120-129) HBS - TG: L03 (pp19-28) HBS - TG: L06 (pp57-68) HBS - TG: L09 (pp103-112) HBS - TG: L14 (pp159-172) HBS - TG: L20.Exts (p239) L - TG: L09.Exts (p115) L - TG: L12.Exts (p140) LW - TG: L01 (pp3-10) LW - TG: L04 (pp37-50) LW - TG: L09 (pp99-108) LW - TG: L17 (pp182-186) M - TG: L06 (pp31-36) M - TG: L10-L12 (pp55-70) M - TG: L14-L16 (pp75-86) MM - TG: L17 (pp103-108) MT - TG: L06.Exts (p63) MT - TG: L11 (pp109-114) OMM - SG: L15 (pp180-187) OMM - TG: L15 (pp253-266) TP - TG: L12.Exts (p161)</p>
KEY IDEA	S7e.	<p>Communicates in a form suited to the purpose and the audience, such as by writing instructions that others can follow; critiquing written and oral explanations; and using data to resolve disagreements.</p> <p>AS - RB: (pp58-61) AS - TG: L02.Exts (pp15-16) AS - TG: L04.Exts (pp41-42) AS - TG: L08.Exts (p94) AS - TG: L09.Exts (pp101-102) AS - TG: L12.Exts (p129) AS - TG: L13.Exts (p138) AS - TG: L16 (pp165-168) AS - TG: L17 (pp169-172) CE - SG: L01-L25 (pp2-282) CE - TG: L01-L25 (pp3-372) EECD - SG: L03 (pp26-35) EECD - SG: L24 (pp244-251) EECD - TG: L03 (pp37-48) EECD - TG: L24 (pp313-326) EMM - SG: L12 (pp108-119) EMM - SG: L17 (pp164-173) EMM - SG: L22 (pp226-236) EMM - TG: L04.Exts (pp41-42)</p>

		<p>EMM - TG: L06 (pp59-74) EMM - TG: L08.Exts (pp92-93) EMM - TG: L12 (pp147-156) EMM - TG: L13 (pp157-166) EMM - TG: L17 (pp203-216) EMM - TG: L22 (pp247-254) EC - TG: L01-L17 (pp3-86) EP - TG: L09 (pp75-80) EP - TG: L10 (pp81-84) EP - TG: L11 (pp85-90) EP - TG: L15.Exts (p117) EP - TG: L16 (pp123-128) ES - SG: L01 (pp2-11) ES - SG: L05 (pp62-73) ES - SG: L09 (pp122-127) ES - SG: L10 (pp130-145) ES - SG: L11 (pp146-159) ES - SG: L14 (pp200-215) ES - SG: L18 (pp290-311) ES - SG: L19 (pp312-323) ES - SG: L22 (pp340-343) ES - TG: L01 (pp3-10) ES - TG: L02.Exts (pp18-19) ES - TG: L05 (pp53-72) ES - TG: L09L11 (pp121-180) ES - TG: L13 (pp197-208) ES - TG: L14 (pp209-220) ES - TG: L18 (pp277-286) ES - TG: L19 (pp287-292) ES - TG: L20.Exts (p297) ES - TG: L21.Exts (p310) ES - TG: L22 (pp311-326) E - RB: (pp07-23) E - RB: (pp26-37) E - RB: (pp40-51) E - RB: (pp54-61) E - TG: L02-L17 (pp13-171) FC - TG: L02.Exts (p19) FC - TG: L05.Exts (p51) FC - TG: L07 (pp69-78) FC - TG: L08 (pp79-84) FC - TG: L10 (pp95-100) FC - TG: L11 (pp101-106) FC - TG: L13 (pp117-124) FC - TG: L16.Exts (p152) FS - TG: L01-L17 (pp3-136) HBS - SG: L09 (pp68-75) HBS - TG: L05.Exts (p52) HBS - TG: L09 (pp103-112) HBS - TG: L10.Exts (p122) HBS - TG: L11.Exts (p135) HBS - TG: L13.Exts (p158) HBS - TG: L15.Exts (p178) HBS - TG: L16.Exts (p188) HBS - TG: L18.Exts (pp215-216) HBS - TG: L19.Exts (p225) HBS - TG: L20.Exts (p239)</p>
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		<p>HBS - TG: L22.Exts (p258) L - SG: L21 (pp230-243) L - SG: L26 (pp294-297) L - TG: L10.Exts (p124) L - TG: L12.Exts (p140) L - TG: L19.Exts (p257) L - TG: L26 (pp349-367) LW - TG: L01-L05 (pp3-62) LW - TG: L07-L14 (pp75-162) LW - TG: L16 (pp173-182) LW - TG: L17 (pp182-186) MD - TG: L01-L04 (pp1-46) MD - TG: L06-L17 (pp57-156) M - TG: L01 (pp3-8) M - TG: L02 (pp9-14) MM - TG: L09-L12 (pp57-82) MM - TG: L16 (pp99-102) MM - TG: L17 (pp103-108) MT - TG: L01 (pp13-20) MT - TG: L04 (pp43-48) MT - TG: L06 (pp59-66) MT - TG: L09 (pp87-94) MT - TG: L11 (pp109-114) MT - TG: L14 (pp135-138) MT - TG: L17 (pp149-150) OMM - TG: L02 (pp15-32) OMM - TG: L04.Exts (pp53-54) OMM - TG: L06.Exts (pp89-91) OMM - TG: L07.Exts (pp118-119) OMM - TG: L11.Exts (pp192-193) OMM - TG: L14.Exts (p247) OMM - TG: L15.Exts (p260) OMM - TG: L17.Exts (pp287-288) OMM - TG: L18.Exts (pp299-300) OMM - TG: L19.Exts (pp317-318) PM - SG: L02 (pp14-23) PM - SG: L10 (pp86-97) PM - SG: L24 (pp218-223) PM - TG: L02 (pp15-26) PM - TG: L10 (pp113-124) PM - TG: L16.Exts (p178) PM - TG: L17.Exts (p185) PM - TG: L21.Exts (p251) PM - TG: L24 (pp295-302) PM - TG: L25.Exts (pp307-308) TP - TG: L01 (pp19-28) TP - TG: L02 (pp29-48) TP - TG: L05 (pp75-90) TP - TG: L06 (pp91-106) TP - TG: L08 (pp117-126) TP - TG: L11 (pp149-156) TP - TG: L12 (pp157-164) TP - TG: L13.Exts (pp167-168) TP - TG: L15-L18 (pp185-218)</p>
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STANDARD	NYC.S8.	Scientific Investigation: The student demonstrates scientific competence by completing projects drawn from the following kinds of investigations, including at least one full investigation each year and, over the course of middle school, investigations that integrate several aspects of Science Standards 1 to 7 and represent all four of the kinds of investigation:
KEY IDEA	S8a.	<p>Controlled experiment.</p> <p>AS - TG: L10 (pp107-114) AS - TG: L12 (pp123-134) AS - TG: L17 (pp169-172) CE - SG: L01-L25 (pp2-282) CE - TG: L01-L25 (pp3-372) EC - RB: (pp13-16) EC - RB: (pp60-61) EC - TG: L01-L7 (pp3-86) EECD - SG: L01-L24 (pp2-251) EECD - TG: L01-L24 (pp3-326) EMM - SG: G - (pp237-239) EMM - SG: L01-L22 (pp2-236) EMM - TG: L01-L22 (pp3-254) EP - RB: (pp14-17) EP - RB: (pp36-40) EP - RB: (pp54-56) EP - TG: L01-L16 (pp9-128) E - RB: (pp43-44) E - TG: L02-L17 (pp13-171) ES - SG: L01 (pp2-11) ES - SG: L04-L06 (pp42-87) ES - SG: L09 (pp122-127) ES - SG: L11 (pp146-159) ES - SG: L13 (pp174-199) ES - SG: L14 (pp200-215) ES - SG: L18 (pp290-311) ES - SG: L20 (pp324-333) ES - SG: L22 (pp340-343) ES - TG: L01 (pp3-10) ES - TG: L04-L06 (pp37-82) ES - TG: L09-L11 (pp121-180) ES - TG: L13 (pp197-208) ES - TG: L14 (pp209-220) ES - TG: L18-L20 (pp277-308) ES - TG: L22 (pp311-326) FC - TG: L02-L04 (pp11-48) FC - TG: L06-L14 (pp57-130) FC - TG: L16 (pp149-154) FS - RB: (pp60-61) FS - TG: L01-L17 (pp3-136) HBS - SG: L02-L08 (pp8-65) HBS - SG: L10-L23 (pp76-195) HBS - TG: L02-L23 (pp11-273) L - SG: L01-L26 (pp2-297) L - TG: L01-L (pp3-367) LW - TG: L01-L17 (pp3-186) MD - RB: (pp23-28) MD - TG: L01 (pp1-14) MD - TG: L03-L17 (pp25-156) MM - RB: (pp14-16)</p>

		MM - RB: (pp33-38) MM - TG: L02-L17 (pp11-108) MT - TG: L02 (pp21-30) MT - TG: L03 (pp31-42) MT - TG: L06-L16 (pp59-148) M - RB: (pp23-25) M - TG: L01-L17 (pp3-88) OMM - SG: L01-L20 (pp2-243) OMM - TG: L01-L20 (pp3-350) PM - SG: L01-L26 (pp2-235) PM - TG: L01-L26 (pp3-332) TP - TG: L01-L18 (pp19-218)
KEY IDEA	S8b.	Fieldwork. AS - TG: L12 (pp123-134) AS - TG: L17 (pp169-172) CE - SG: L01-L25 (pp2-282) CE - TG: L01-L25 (pp3-372) EECD - SG: L01-L24 (pp2-251) EECD - TG: L01-L24 (pp3-326) EMM - SG: G - (pp237-239) EMM - SG: L01-L22 (pp2-236) EMM - TG: L01-L22 (pp3-254) EP - RB: (pp14-17) EP - TG: L01-L16 (pp9-128) ES - SG: L01 (pp2-11) ES - SG: L04 (pp42-61) ES - SG: L05 (pp62-73) ES - SG: L06 (pp74-87) ES - SG: L09 (pp122-127) ES - SG: L11 (pp146-159) ES - SG: L13 (pp174-199) ES - SG: L14 (pp200-215) ES - SG: L18 (pp290-311) ES - SG: L20 (pp324-333) ES - SG: L22 (pp340-343) ES - TG: L01 (pp3-10) ES - TG: L04-L06 (pp37-82) ES - TG: L09-L11 (pp121-180) ES - TG: L13 (pp197-208) ES - TG: L14 (pp209-220) ES - TG: L18-L20 (pp277-308) ES - TG: L22 (pp311-326) EC - RB: (pp13-16) EC - RB: (pp60-61) EC - TG: L01-L17 (pp3-86) EP - RB: (pp14-17) EP - TG: L01-L16 (pp9-128) E - RB: (pp43-44) E - TG: L02-L17 (pp13-171) FC - TG: L02-L04 (pp11-48) FC - TG: L06-L14 (pp57-130) FC - TG: L16 (pp149-154) FS - RB: (pp60-61) FS - TG: L01-L17 (pp3-136) HBS - SG: L02-L23 (pp8-195) HBS - TG: L02-L23 (pp11-276)

		<p>L - SG: L01-L26 (pp2-297) L - TG: L01-L26 (pp3-367) LW - TG: L01-L17 (pp3-186) MD - RB: (pp23-28) MD - TG: L01 (pp1-14) MD - TG: L03-L15 (pp25-144) MD - TG: L17 (pp153-156) MM - RB: (pp14-16) MM - RB: (pp33-38) MM - TG: L02-L17 (pp11-108) MT - TG: L02 (pp21-30) MT - TG: L03 (pp31-42) MT - TG: L06-L16 (pp59-148) M - RB: (pp23-25) M - TG: L01-L17 (pp3-88) OMM - SG: L01-L20 (pp2-243) OMM - TG: L01-L20 (pp3-350) PM - SG: L01-L26 (pp2-235) PM - TG: L01-L26 (pp3-332) TP - TG: L01-L18 (pp19-218)</p>
KEY IDEA	S8c.	<p>Design.</p> <p>AS - TG: L01.Exts (p6) AS - TG: L05 (pp49-64) AS - TG: L08 (pp87-96) AS - TG: L12 (pp123-134) AS - TG: L17 (pp169-172) CE - SG: L01-L25 (pp2-282) CE - TG: L01-L25 (pp3-372) EC - RB: (pp13-16) EC - RB: (pp60-61) EC - TG: L01-L17 (pp3-86) EECD - SG: L01-L24 (pp2-251) EECD - TG: L01-L24 (pp3-326) EMM - SG: G - (pp237-239) EMM - SG: L01-L22 (pp2-236) EMM - TG: L01-L22 (pp3-254) EP - RB: (pp14-17) EP - TG: L01-L16 (pp9-128) ES - SG: L01 (pp2-11) ES - SG: L04 (pp42-61) ES - SG: L05 (pp62-73) ES - SG: L06 (pp74-87) ES - SG: L09 (pp122-127) ES - SG: L11 (pp146-159) ES - SG: L13 (pp174-199) ES - SG: L14 (pp200-215) ES - SG: L18 (pp290-311) ES - SG: L20 (pp324-333) ES - SG: L22 (pp340-343) ES - TG: L01 (pp3-10) ES - TG: L04 (pp37-52) ES - TG: L05 (pp53-72) ES - TG: L06 (pp73-82) ES - TG: L09 (pp121-146) ES - TG: L10 (pp147-158) ES - TG: L11 (pp159-180)</p>

		<p>ES - TG: L13 (pp197-208) ES - TG: L14 (pp209-220) ES - TG: L18 (pp277-286) ES - TG: L19 (pp287-292) ES - TG: L20 (pp293-308) ES - TG: L22 (pp311-326) E - RB: (pp43-44) E - TG: L02-L17 (pp13-171) FC - TG: L02-L04 (pp11-48) FC - TG: L06-L14 (pp57-130) FC - TG: L16 (pp149-154) FS - RB: (pp60-61) FS - TG: L0117 (pp3-136) HBS - SG: L02-L23 (pp8-195) HBS - TG: L02-L23 (pp11-276) L - SG: L01-L26 (pp2-297) L - TG: L01-L26 (pp3-367) LW - TG: L01-L7 (pp3-186) MD - RB: (pp23-28) MD - TG: L01-L17 (pp1-156) MM - RB: (pp14-16) MM - RB: (pp33-38) MM - TG: L02-L17 (pp11-108) MT - TG: L02-L16 (pp21-148) M - RB: (pp23-25) M - TG: L01-L17 (pp3-88) OMM - SG: L01-L20 (pp2-243) OMM - TG: L01-L20 (pp3-350) PM - SG: L01-L26 (pp2-235) PM - TG: L01-L26 (pp3-332) TP - TG: L01-L18 (pp19-218)</p>
KEY IDEA	S8d.	<p>Secondary research, such as use of others' data.</p> <p>AS - TG: L12 (pp123-134) AS - TG: L14 (pp143-156) AS - TG: L17 (pp169-172) CE - SG: L01-L25 (pp2-282) CE - TG: L01-L25 (pp3-372) EC - RB: (pp13-16) EC - RB: (pp60-61) EC - TG: L01-L17 (pp3-86) EECD - SG: L01-L24 (pp2-251) EECD - TG: L01-L24 (pp3-326) EMM - SG: G - (pp237-239) EMM - SG: L01-L22 (pp2-236) EMM - TG: L01-L22 (pp3-254) EP - RB: (pp14-17) EP - TG: L01-L16 (pp9-128) ES - SG: L01 (pp2-11) ES - SG: L04 (pp42-61) ES - SG: L05 (pp62-73) ES - SG: L06 (pp74-87) ES - SG: L09 (pp122-127) ES - SG: L11 (pp146-159) ES - SG: L13 (pp174-199) ES - SG: L14 (pp200-215) ES - SG: L18 (pp290-311)</p>

		ES - SG: L20 (pp324-333) ES - SG: L22 (pp340-343) ES - TG: L01 (pp3-10) ES - TG: L04 (pp37-52) ES - TG: L05 (pp53-72) ES - TG: L06 (pp73-82) ES - TG: L09 (pp121-146) ES - TG: L10 (pp147-158) ES - TG: L11 (pp159-180) ES - TG: L13 (pp197-208) ES - TG: L14 (pp209-220) ES - TG: L18-L20 (pp277-308) ES - TG: L22 (pp311-326) E - RB: (pp43-44) E - TG: L02-L17 (pp13-171) FC - TG: L02-L04 (pp11-48) FC - TG: L06-L16 (pp57-154) FS - RB: (pp60-61) FS - TG: L01-L17 (pp3-136) HBS - SG: L02-L23 (pp8-195) HBS - TG: L02-L23 (pp11-276) L - SG: L01-L26 (pp2-297) L - TG: L01-L26 (pp3-367) LW - TG: L01-L17 (pp3-186) MD - RB: (pp23-28) M - RB: (pp23-25) M - TG: L01-L17 (pp3-88) MD - TG: L01 (pp1-14) MD - TG: L03-L15 (pp25-144) MD - TG: L17 (pp153-156) MM - RB: (pp14-16) MM - RB: (pp33-38) MM - TG: L02-L17 (pp11-108) MT - TG: L02 (pp21-30) MT - TG: L03 (pp31-42) MT - TG: L06-L16 (pp59-148) OMM - SG: L01-L20 (pp2-243) OMM - TG: L01-L20 (pp3-350) PM - SG: L01-L26 (pp2-235) PM - TG: L01-L26 (pp3-332) TP - TG: L01-L18 (pp19-218)
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