



Correlation to Show Compatibility of *iScience - Life Science* with the Next Generation Science Standards Performance Expectations and Disciplinary Core Ideas

iScience provides optimal flexibility for the initial implementation of the Next Generation Science Standards (NGSS) into your curriculum. This correlation to the Performance Expectations and Disciplinary Core Ideas will help guide and inform your curriculum decisions as you transition the NGSS into your science instruction.

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Nature of Science	ETS1.B(secondary to MS-LS2-5)	NOS20-NOS27 TE: GQ NOS27, VL NOS23
Inquiry Lab	ETS1.B(secondary to MS-LS2-5)	NOS28-NOS29
Nature of Science	ETS1.B(secondary to MS-LS2-5)	4-5 TE: GQ 4
MiniLab	ETS1.B(secondary to MS-LS2-5)	5

Chapter 1 • Classifying and Exploring Life

Chapter Opener	MS-LS1-1	TE: IWB 6D
1. Characteristics of Life	MS-LS1-6, LS1.A (MS-LS1-1), LS1.B (secondary to MS-LS3-2)	8-17 TE: GQ 10, 11, 14
Launch Lab	MS-LS1-1	9
2. Exploring Life		26-31

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 2 • Cell Structure and Function		
Chapter Opener	MS-LS1-7, LS1.A (MS-LS1-1)	TE: IM 40H; SCB 40E-F
1. Cells and Life	MS-LS1-1, LS1.A (MS-LS1-1)	42-49 TE: GQ 43
Launch Lab	MS-LS1-1	43
2. The Cell	LS1.A (MS-LS1-2)	50-59 TE: DI 53, 57; GQ 52, 55, 56, 57; RS 57; TD 55; VL 52, 53, 56, 57
MiniLab	MS-LS1-1, MS-LS1-2, LS1.A (MS-LS1-2)	54
Skill Practice	MS-LS1-1	59
3. Moving Cellular Material	MS-LS1-2, LS1.A (MS-LS1-2)	60-67 TE: TD 61
Launch Lab	MS-LS1-2, LS1.A (MS-LS1-2)	61
MiniLab	MS-LS1-2, LS1.A (MS-LS1-2)	63
4. Cells and Energy	MS-LS1-6, MS-LS1-7, LS1.C (MS-LS1-6), LS1.C (MS-LS1-7), LS1.D (secondary to MS-LS1-6), LS1.D (secondary to MS-LS1-7)	68-73 TE: GQ 69, 70, 71, 72
Inquiry Lab	LS1.C (MS-LS1-6), LS1.D (secondary to MS-LS1-6)	74, 75

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 3 • From a Cell to an Organism		
Chapter Opener	MS-LS1-3; LS1.A (MS-LS1-3)	82-83 TE: IN 82
Inquiry	LS1.A (MS-LS1-3)	82
1. The Cell Cycle and Cell Division	LS1.B (secondary to MS-LS1-3)	84-95
2. Levels of Organisation	MS-LS1-3, LS1.A (MS-LS1-1), LS1.A (MS-LS1-3)	96-105 TE: GQ 101, 102, 103, 104; FT 99; VL 99; AC 97; DI 103
Launch Lab	LS1.A (MS-LS1-3)	97
MiniLab	MS-LS1-1, MS-LS1-3, LS1.A (MS-LS1-3)	103
Inquiry Lab	MS-LS1-1, MS-LS1-3, LS1.A (MS-LS1-1), LS1.A (MS-LS1-3)	106-107

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 4 • Reproduction of Organisms		
Inquiry	LS1.B (secondary to MSLS3-2)	114 TE: GQ 114; SCB 114E, F
1. Sexual Reproduction and Meiosis	LS1.B (secondary to MSLS3-2), LS3.A (MS-LS3-2), MS-LS4-5, LS4.B (MS-LS4-5)	116-127 TE: GQ 117, 124, 125; DI 125
Launch Lab	LS1.B (secondary to MSLS3-2), LS3.A (MS-LS3-2)	117
Careers in Science	MS-LS1-4, LS1.B (MS-LS1-4)	127
2. Asexual Reproduction	MS-LS1-4, LS1.B (secondary to MSLS3-2), LS3.A (MS-LS3-1)	128-137 TE: GQ 128, 129
Inquiry	LS1.B (secondary to MSLS3-2)	128
Launch Lab	LS1.B (secondary to MSLS3-2)	129
MiniLab	MS-LS1-4, LS1.B (secondary to MSLS3-2)	133
Inquiry Lab		138-139

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 5 • Genetics		
Inquiry	LS3.A (MS-LS3-2)	146 TE: GQ 146
1. Mendel and His Peas	LS1.B (secondary to MSLS3-2)	148-157
2. Understanding Inheritance	LS1.B (secondary to MSLS3-2), LS3.A (MS-LS3-1), LS3.A (MS-LS3-2)	158-167 TE: GQ 159, 160, 161; VL 160
3. DNA and Genetics	LS3.A (MS-LS3-1)	168-177 TE: GQ 170, 175, 176; VL 174; DI 175
Skill Practice	LS3.A (MS-LS3-2)	168
Inquiry Lab	LS3.A (MS-LS3-2)	178-179

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 6 • The Environment and Change Over Time		
Inquiry	MS-LS1-4, MS-LS4-2, MS-LS4-4, MS-LS4-5, LS4.A (MS-LS4-1), LS4.A (MS-LS4-2), LS4.B (MS-LS4-4), LS4.C (MS-LS4-6)	186 TE: SCB 186E,F; IM 186H; SCB 186F; TBI 186
1. Fossil Evidence of Evolution	MS-LS1-4, LS3.A (MS-LS3-2), MS-LS4-1, MS-LS4-2, LS4.A (MS-LS4-1), LS4.A (MS-LS4-2), LS4.A (MS-LS4-3), LS4.B (MS-LS4-4), LS4.C (MS-LS4-6)	188-197 TE: IN 186, 188; GQ 188, 189, 192; ML 195; VL 193, 195; DI 193, 195; TD 195
Inquiry	MS-LS4-1	188
MiniLab	MS-LS4-1, MS-LS4-2, LS4.A (MS-LS4-2)	195
2. Theory of Evolution by Natural Selection	LS3.A (MS-LS3-1), LS3.A (MS-LS3-2), MS-LS4-4, MS-LS4-5, LS4.B (MS-LS4-4), LS4.B (MS-LS4-5), LS4.C (MS-LS4-6)	198-207 TE: GQ 198, 201, 202, 203, 204, 205; NL 202; DI 203, 205; ML 205
Inquiry	MS-LS4-4	198
Launch Lab	LS3.A (MS-LS3-2)	199
MiniLab	MS-LS4-4, MS-LS4-6, LS4.B (MS-LS4-4), LS4.C (MS-LS4-6)	205
3. Biological Evidence of Evolution	LS2.C (MS-LS2-5), MS-LS4-1, MS-LS4-2, MS-LS4-3, LS4.A (MS-LS4-2), LS4.A (MS-LS4-3)	208-215 TE: GQ 209, 210, 212; VL 211, 212; DI 213; DIF 213
Inquiry Lab	MS-LS4-4, LS4.C (MS-LS4-6)	216-217
Chapter Review #12	MS-LS4-2	221

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
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Chapter 7 • Bacteria and Viruses

1. What are bacteria?		230-237
2. Bacteria in Nature	LS2.B (MS-LS2-3); LS4.D (MS-LS2-5)	238-245 TE: GQ 240
Inquiry Skill Practice		
3. What are viruses?	MS-LS4-5	246-253

Chapter 8 • Protists and Fungi

1. What are protists?	LS1.C (MS-LS1-6); LS4.D (MS-LS2-5)	264-275 TE: GQ 266, 268, 272, 273
Green Science	LS4.D (MS-LS2-5)	275
2. What are fungi?	MS-LS2-2, LS2.A (MS-LS2-2), LS2.B (MS-LS2-3), LS4.D (MS-LS2-5)	276-285 TE: GQ 281, 282, 283, 284; DI 281
Inquiry Lab	MS-LS2-2, LS2.A (MS-LS2-2)	286-287

Chapter 9 • Plant Diversity

1. What is a plant?	LS1.B (MS-LS1-5)	296-305 TE: TD 297
2. Seedless Plants		306-311
3. Seed Plants	MS-LS1-4	312-321 TE: TD 319

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
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Chapter 10 • Plant Processes and Reproduction

Chapter Opener	MS-LS1-7	TE: IM 330H; SCB 330E
1. Energy Processing in Plants	MS-LS1-6, MS-LS1-7, LS1.C (MS-LS1-6), LS1.C (MS-LS1-7), LS1.D (secondary to MS-LS1-6), LS1.D (secondary to MS-LS1-7)	332-339 TE: TD 337; DI 335; GQ 334, 335, 336, 337; VL 334, 335
MiniLab	MS-LS1-7, LS1.C (MS-LS1-6), LS1.C (MS-LS1-7), LS1.D (secondary to MS-LS1-6)	336
Green Science	MS-LS2-5, LS4.D (MS-LS2-5)	339
2. Plant Responses		340-349
Skill Practice	MS-LS1-5, LS1.B (MS-LS1-5)	349
3. Plant Reproduction	MS-LS1-4, LS1.B (MS-LS1-4), LS1.B (secondary to MSLS3-2)	350-359 TE: GQ 350, 351, 358
Inquiry	LS1.B (MS-LS1-4)	350
Launch Lab	MS-LS1-4, LS1.B (MS-LS1-4)	351
MiniLab	LS1.B (MS-LS1-4)	356
Inquiry Lab		360-361
Nature of Science	MS-LS2-1	370-371
MiniLab	MS-LS2-1	371

Chapter 11 • Animal Diversity

1. What defines an animal?		374-381
2. Invertebrate Phyla		382-392
3. Phylum Chordata		393-399

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
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Chapter 12 • Animal Structure and Function

1. Support, Control, and Movement		410-419
2. Circulation and Gas Exchange		420-427
3. Digestion and Excretion	MS-LS1-7	428-435

Chapter 13 • Animal Behavior and Reproduction

1. Types of Behavior	MS-LS1-4, MS-LS1-8, LS1.B (MS-LS1-4), LS1.D (MS-LS1-8)	446-455 TE: TD 499; GQ 447, 449
Launch Lab	MS-LS1-7, LS1.D (MS-LS1-8)	447
MiniLab	MS-LS1-4	452
2. Interacting with Others	MS-LS1-4, LS1.B (MS-LS1-4)	456-463 TE: GQ 461; TD 461; Extend 463
How Nature Works	MS-LS1-4, LS1.B (MS-LS1-4)	463
3. Animal Reproduction and Development	LS1.B (secondary to MSLS3-2)	464-471 TE: GQ 465
Inquiry Lab	MS-LS1-8	472-473
Unit 4 Opener	MS-LS1-3, LS1.A (MS-LS1-3)	482-483 TE: VL 482
MiniLab	MS-LS1-3, LS1.A (MS-LS1-3)	483

Chapter 14 • Structure and Movement

1. The Skeletal System		486-495
2. The Muscular System	MS-LS1-3, LS1.A (MS-LS1-3)	496-503 TE: GQ 497, 501
3. The Skin	MS-LS1-3	504-511

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
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Chapter 15 • Digestion and Excretion

1. Nutrition	MS-LS1-7	522-529
2. The Digestive System	MS-LS1-3, MS-LS1-7, LS1.A (MS-LS1-3), LS1.C (MS-LS1-7)	530-539 TE: GQ 531, 532, 533, 536; RG 530
MiniLab	MS-LS1-7, LS1.C (MS-LS1-7)	532
3. The Excretory System	MS-LS1-3, LS1.A (MS-LS1-3)	540-547 TE: GQ 542, 543, 546

Chapter 16 • Respiration and Circulation

1. The Respiratory System	MS-LS1-3, LS1.A (MS-LS1-3)	558-565
2. The Circulatory System	MS-LS1-3, LS1.A (MS-LS1-3)	566-575
3. Blood		576-583
4. The Lymphatic System		584-589

Chapter 17 • Immunity and Disease

1. Diseases		600-609
2. The Immune System		610-619
3. Staying Healthy		620-625

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
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Chapter 18 • Control and Coordination

1. The Nervous System	MS-LS1-3, MS-LS1-8, LS1.A (MS-LS1-3), LS1.D (MS-LS1-8)	636-645 TE: IN 636; GQ 637, 640; VL 638, 639
Inquiry	MS-LS1-8, LS1.D (MS-LS1-8)	636
Skill Practice	LS1.D (MS-LS1-8)	645
2. The Senses	MS-LS1-8, MS-LS1-8, LS1.D (MS-LS1-8)	646-655 TE: GQ 650, 653; DI 653; VL 652
Launch Lab	LS1.D (MS-LS1-8)	647
MiniLab	LS1.D (MS-LS1-8)	653
3. The Endocrine System		656-661

Chapter 19 • Reproduction and Development

1. The Reproductive System		672-681
2. Human Growth and Development		682-691
Nature of Science	MS-LS4-5	702 TE: VL 702

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 20 • Matter and Energy in the Environment		
Chapter Opener	MS-LS1-6, LS2.A (MS-LS2-1)	TE: IM 704H; SCB 704E,F; GQ 704
Inquiry	LS2.A (MS-LS2-1)	704
1. Abiotic Factors	MS-LS1-5, LS1.B (MS-LS1-5), MS-LS2-4, LS2.A (MS-LS2-1)	706-711 TE: GQ 707, 708, 709; TD 707
Launch Lab	MS-LS1-1	707
2. Cycles of Matter	MS-LS1-6, MS-LS2-3, LS2.B (MS-LS2-3)	712-721 TE: VL 718; DI 715, 717, 719; TD 713; VL 714, 715, 718; GQ 716
3. Energy in Ecosystems	MS-LS1-4, MS-LS1-6, MS-LS1-7, LS1.C (MS-LS1-6), LS1.C (MS-LS1-7), LS1.D (secondary to MS-LS1-6), LS1.D (secondary to MS-LS1-7), MS-LS2-2, MS-LS2-3, LS2.A (MS-LS2-1), LS2.B (MS-LS2-3)	722-729 TE: GQ 723, 725, 726; IN 722; RS 725; VL 724, 728; IN 722; TD 723; DI 726, 727; CD 725
Inquiry	MS-LS2-2	722
MiniLab	MS-LS1-6	725
Math Skills	MS-LS1-6, MS-LS2-3	728
Inquiry Lab	MS-LS1-5, LS1.B (MS-LS1-5), LS2.A (MS-LS2-1)	730-731

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 21 • Populations and Communities		
Inquiry	MS-LS2-1, MS-LS2-2, LS2.A (MS-LS2-1)	738 TE: IWB 738D; SCB 738E
1. Populations	MS-LS1-5, LS1.B (MS-LS1-5), MS-LS2-1, MS-LS2-2, MS-LS2-4, LS2.A (MS-LS2-1)	740-747 TE: DIF 743; GQ 743, 745; DI 743
MiniLab	MS-LS1-5, MS-LS2-1, MS-LS2-4, LS2.A (MS-LS2-1)	743
2. Changing Populations	MS-LS2-1, MS-LS2-4, LS2.A (MS-LS2-1)	748-757 TE: GQ 749, 755
Launch Lab	MS-LS2-1, MS-LS2-4	749
Skill Practice	MS-LS2-4	757
3. Communities	MS-LS1-6, MS-LS1-7, LS1.C (MS-LS1-6), LS1.C (MS-LS1-7), LS1.D (secondary to MS-LS1-6), LS1.D (secondary to MS-LS1-7), MS-LS2-2, MS-LS2-3, LS2.A (MS-LS2-2), LS2.B (MS-LS2-3)	758-765 TE: TD 761; GQ 760, 761, 762, 763, 764; DI 761, 763; VL 761, 762
MiniLab	MS-LS2-3, LS2.B (MS-LS2-3)	760
Inquiry Lab	MS-LS2-2, LS2.A (MS-LS2-2)	766-767

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 22 • Biomes and Ecosystems		
Chapter Opener	LS2.C (MS-LS2-4), LS2.C (MS-LS2-5)	774 TE: SCB 774F; IM 774H
1. Land Biomes	LS2.C (MS-LS2-5)	776-785 TE: GQ 778, 779, 780, 781, 783
2. Aquatic Ecosystems	LS2.C (MS-LS2-5)	786-795 TE: VL 790, 791, 792
Science & Society	MS-LS2-5	795
3. How Ecosystems Change	MS-LS2-4, LS2.C (MS-LS2-4)	796-801 TE: DI 799; GQ 797, 798, 799, 800; TD 797
Launch Lab	LS2.C (MS-LS2-4)	797
Inquiry Lab	MS-LS1-5, LS1.B (MS-LS1-5), LS2.A (MS-LS2-1)	802-803

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 23 • Using Natural Resources		
Chapter Opener	MS-LS2-5	TE: IWS 810D; SCB 810F; IM 810H
1. Earth's Resources		812-821
Green Science	MS-LS2-5	821
2. Pollution		822-829
Skill Paractice	MS-LS2-5	829
3. Protecting Earth	MS-LS2-5	830-837 TE: GQ 832, 833, 834, 835
Launch Lab	MS-LS2-5	831
Inquiry Lab	MS-LS2-5	838-839