

Correlation to Show Compatibility of *Integrated iScience – Course 2* 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 • Scientific Explanations		
1. Understanding Science		NOS4-NOS11
2. Measurement and Scientific Tools		NOS12-NOS19
3. Case Study	ETS1.B (secondary to MS-LS2-5)	NOS20-NOS27
Chapter 1 • Classifying and Exploring Life		
1. Characteristics of Life	MS-LS1-6, LS1.A (MS-LS1-1), LS1.B (secondary to MS-LS3-2)	8-17
2. Classifying Organisms		18-25
3. Exploring Life		26-31
Chapter 2 • Cell Structure and Function		
1. Cells and Life	MS-LS1-1, LS1.A (MS-LS1-1)	42-49
2. The Cell	LS1.A (MS-LS1-2)	50-59
3. Moving Cellular Material	MS-LS1-2, LS1.A (MS-LS1-2)	60-67
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)	68-75
Chapter 3 • From a Cell to an Organism		
1. The Cell Cycle and Cell Division	LS1.B (secondary to MS-LS3-2)	84-95
2. Levels of Organization	MS-LS1-3, LS1.A (MS-LS1-1), LS1.A (MS-LS1-3)	96-107

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 4 • Reproduction of Organisms		
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
2. Asexual Reproduction	MS-LS1-4, LS1.B (secondary to MSLS3-2), LS3.A (MS-LS3-1)	128-139
Chapter 5 • Genetics		
1. Mendel and His Peas	LS1.B (secondary to MSLS3-2)	152-160
2. Understanding Inheritance	LS1.B (secondary to MSLS3-2), LS3.A (MS-LS3-1), LS3.A (MS-LS3-2)	162-172
3. DNA and Genetics	LS3.A (MS-LS3-1)	173-183
Chapter 6 • The Environment and Change Over Time		
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)	192-201
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)	202-211
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)	212-221

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 7 • Human Body Systems		
1. Transport and Defense	MS-LS1-3, LS1.A (MS-LS1-3), LS1.C (MS-LS1-7)	230-243
2. Structure, Movement, and Control	MS-LS1-3, MS-LS1-8, LS1.A (MS-LS1-3), LS1.D (MS-LS1-8)	244-252
3. Reproduction and Development	MS-LS1-3, LS1.A (MS-LS1-3)	254-261
Chapter 8 • Plant Processes and Reproduction		
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)	270-276
2. Plant Responses		278-287
3. Plant Reproduction	MS-LS1-4, LS1.B (MS-LS1-4), LS1.B (secondary to MS-LS1-4)	288-299
Chapter 9 • Interactions of Living Things		
1. Ecosystems and Biomes	MS-LS2-1, MS-LS2-4, LS2.A (MS-LS2-1), LS2.C (MS-LS2-4)	308-314
2. Populations and Communities	MS-LS2-1, MS-LS2-2, MS-LS2-4, LS2.A (MS-LS2-1), LS2.A (MS-LS2-2), LS2.C (MS-LS2-4)	316-323
3. Energy and Matter	MS-LS1-6, MS-LS2-3, LS1.C (MS-LS1-6), LS2.B (MS-LS2-3)	324-335

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
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Chapter 10 • Foundations of Chemistry

1. Classifying Matter	PS1.A (MS-PS1-1), PS1.A (MS-PS1-2)(MS-PS1-3), PS1.B (MS-PS1-2)(MS-PS1-3)(MS-PS1-5)	348-355
2. Physical Properties	MS-PS1-4, PS1.A (MS-PS1-2)(MS-PS1-3), PS1.A (MS-PS1-4)	357-365
3. Physical Changes	MS-PS1-5, PS1.A (MS-PS1-2)(MS-PS1-3), PS1.A (MS-PS1-4)	366-372
4. Chemical Properties and Changes	MS-PS1-1, MS-PS1-2, MS-PS1-5, PS1.A (MS-PS1-1), PS1.A (MS-PS1-2)(MS-PS1-3), PS1.B (MS-PS1-2)(MS-PS1-3)(MS-PS1-5), PS1.B (MS-PS1-5)	373-381

Chapter 11 • The Periodic Table

1. Using the Periodic Table		390-399
2. Metals	MS-PS1-3, MS-PS1-5	400-406
3. Nonmetals and Metalloids		408-417

Chapter 12 • Using Energy and Heat

4. Forms of Energy	MS-PS3-2, MS-PS3-1, MS-PS4-2, PS3.A (MS-PS3-2), PS3.A (MS-PS3-1), PS4.A (MS-PS3-2),	426-434
5. Energy Transfers and Transformations	MS-PS3-5, PS3.B (MS-PS3-5)	435-444
6. Particles in Motion	MS-PS1-4, MS-PS3-3, PS3.A (secondary to MS-PS1-4), PS3.A (MS-PS3-3), (MS-PS3-4)	445-455

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 13 • The Earth System		
1. Earth Systems and Interactions	MS-ESS2-4, MS-ESS2-1, ESS2.C (MS-ESS2-4), ESS2.A (MS-ESS2-1)	468-478
2. The Geosphere	MS-ESS2-1, ESS2.A (MS-ESS2-1)	480-491
Chapter 14 • Earth’s Changing Surface		
1. Plate Tectonics	MS-ESS2-3, ESS2.B (MS-ESS2-3), ESS2.C (secondary to MS-ESS2-3)	500-507
2. Earthquakes and Volcanoes	MS-ESS2-2, MS-ESS3-2, ESS2.A (MS-ESS2-2), ESS2.B (MS-ESS2-3)	508-517
3. Weathering, Erosion, and Deposition	MS-ESS2-2, ESS2.C (MS-ESS2-2), ESS2.A (MS-ESS2-2)	518-527
Chapter 15 • Using Natural Resources		
1. Earth’s Resources		536-544
2. Pollution		546-553
3. Protecting Earth	MS-LS2-5	554-563
Chapter 16 • Earth’s Atmosphere		
1. Describing Earth’s Atmosphere	ESS3.A (MS-ESS3-1)	572-579
2. Energy Transfer in the Atmosphere	MS-ESS2-6, ESS2.D (MS-ESS2-6)	581-589
3. Air Currents	MS-ESS2-5, MS-ESS2-6, ESS2.C (MS-ESS2-5), ESS2.D (MS-ESS2-6)	590-596
4. Air Quality	MS-ESS3-3, ESS3.C (MS-ESS3-3), ESS3.C (MS-ESS3-3)(MS-ESS3-4)	597-605

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 17 • Weather		
1. Describing Weather	MS-ESS2-5, ESS2.C (MS-ESS2-4), ESS2.C (MS-ESS2-5), ESS2.C (MS-ESS2-4)	614-620
2. Weather Patterns	MS-ESS2-5, ESS2.C (MS-ESS2-5), ESS2.D (MS-ESS2-6), MS-ESS3-2	622-633
3. Weather Forecasts	MS-ESS2-5, ESS2.D (MS-ESS2-5)	634-641
Chapter 18 • Climate		
1. Climates of Earth	MS-ESS2-6, ESS2.D (MS-ESS2-6)	650-658
2. Climate Cycles	MS-ESS2-6, ESS2.D (MS-ESS2-6)	659-666
3. Recent Climate Change	ESS2.D (MS-ESS2-5), MS-ESS3-4, MS-ESS3-5, ESS3.C (MS-ESS3-3), ESS3.C (MS-ESS3-3)(MS-ESS3-4), ESS3.D (MS-ESS3-5)	668-677

Lesson or Feature Title	Performance Expectations & Disciplinary Core Ideas	Pages
Chapter 19 • Motion, Forces, and Newton’s Laws		
1. Describing Motion	PS2.A (MS-PS2-2)	690-698
2. Forces	MS-PS2-2, MS-PS-4, PS2.B (MS-PS-4)	700-707
3. Newton’s Laws of Motion	MS-PS2-2, PS2.A (MS-PS2-2), PS2.A (MS-PS2-1)	709-717
Chapter 20 • The Sun-Earth-Moon System		
1. Earth’s Motion	MS-ESS1-1, MS-ESS1-2, ESS1.A (MS-ESS1-1), ESS1.B (MS-ESS1-2) (MS-ESS1-3), ESS1.B (MS-ESS1-1)	726-735
2. Earth’s Moon	MS-ESS1-1, MS-ESS1-3, ESS1.A (MS-ESS1-1)	736-742
3. Eclipses and Tides	MS-ESS1-1, MS-ESS1-3, ESS1.A (MS-ESS1-1), ESS1.B (MS-ESS1-1)	744-753
Chapter 21 • Exploring Our Solar System		
1. Our Solar System	MS-ESS1-2, MS-ESS1-3, ESS1.B (MS-ESS1-2), ESS1.B (MS-ESS1-3),	762-770
2. Life in the Solar System		772-779
3. Human Space Travel		780-789