

#### 2020 - 2021 Year-at-a-Glance Snapshot: Grade 7 Science

# Scientific Method (Aug 17-Sep 18)

Chapter	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
1	Lesson 1.1:Observation / Inference Lesson 1.2: Scientific Method Vocab Lesson 1.3: Scientific Inquiry Process Lesson 1.4: Variables Lesson 1.5: Experimental Design Lesson 1.6: Gathering and Analyzing Datat	Performance Expectations: MS-PS1-1; MS-PS1-4; MS-PS3-4; MS-PS3-5; MS-ESS1-3; MS-ESS2-4 Science and Engineering Practices: Practice 1; 2; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS3.A; ESS1.B; ESS2.C Crosscutting Concepts: Scale, Proportion, and Quantity; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
1	Lesson 1.1: Pre-Unit Assessment Lesson 1.2: Introduction Lesson 1.3: Investigating the Molecular Scale Lesson 1.4: Weird Water Events Lesson 1.5: Investigating Evaporation and Freezing Lesson 1.6: Modeling the Molecular Scale	Performance Expectations: MS-PS1-1; MS-PS1-4; MS-PS3-4; MS-PS3-5; MS-ESS1-3; MS-ESS2-4 Science and Engineering Practices: Practice 1; 2; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS3.A; ESS1.B; ESS2.C Crosscutting Concepts: Scale, Proportion, and Quantity; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
2	Lesson 2.1: Causing Freedom of Movement Changes Lesson 2.2: Understanding Energy Transfers Lesson 2.3: Evaluating Evidence and Claims	Performance Expectations: MS-PS1-1; MS-PS1-4; MS-PS3-4; MS-PS3-5; MS-ESS1-3; MS-ESS2-4 Science and Engineering Practices: Practice 1; 2; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS3.A; ESS1.B; ESS2.C Crosscutting Concepts: Scale, Proportion, and Quantity; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle		
3	Chapter 3 Lessons Lesson 3.1: "Liquid Oxygen" Lesson 3.2: Focusing on Molecular Attraction Lesson 3.3: Modeling Attraction Lesson 3.4: Critical Juncture Assessment Lesson 3.5: Investigating Office Mysteries	Performance Expectations: MS-PS1-1; MS-PS1-4; MS-PS3-4; MS-PS3-5; MS-ESS1-3; MS-ESS2-4 Science and Engineering Practices: Practice 1; 2; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS3.A; ESS1.B; ESS2.C Crosscutting Concepts: Scale, Proportion, and Quantity; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

### **Chapter 4**

Lesson	Title/Subtitle		
4	Chapter 4 Lessons Lesson 4.1: Introducing the Liquid Oxygen Problem Lesson 4.2: Analyzing Claims and Evidence Lesson 4.3: Science Seminar Lesson 4.4: Writing a Scientific Argument Lesson 4.5: End-of-Unit Assessment	Performance Expectations: MS-PS1-1; MS-PS1-4; MS-PS3-4; MS-PS3-5; MS-ESS1-3; MS-ESS2-4 Science and Engineering Practices: Practice 1; 2; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS3.A; ESS1.B; ESS2.C Crosscutting Concepts: Scale, Proportion, and Quantity; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

# 3 Chemical Reactions (Nov. 2- Jan. 15)

Lesson	Title/Subtitle	Standards	Related

			Supplemental Work & Enrichment Activities
1	Chapter 1 Lessons Lesson 1.1: Pre-Unit Assessment Lesson 1.2: A Water Mystery in Westfield Lesson 1.3: Analyzing Substances and Properties Lesson 1.4: "Atomic Zoom-In" Lesson 1.5: Investigating Atoms and Properties Lesson 1.6: Identifying the Reddish-Brown Substance	Performance Expectations: MS-PS1-1; MS-PS1-2; MS-PS1-3; MS-PS1-5; MS-PS1-6; MS-LS1-6; MS-LS1-7; MSS-ESS3-1; MS-ESS3-3; MS-ESS3-5 Science and Engineering Practices: Practice 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS1.B; LS1.C; ESS3.A; ESS3.C; ESS3.D Crosscutting Concepts: Scale, Proportion, and Quantity; Patterns; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Legends of Learning Studyjams.com Phet Gizmos

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
2	Chapter 2 Lessons Lesson 2.1: Investigating Substance Changes Lesson 2.2: Explaining Chemical Reactions Lesson 2.3: Explaining How the Rust Formed Lesson 2.4: Critical Juncture Assessment Lesson 2.5: Reflecting on Chemical Reactions	Performance Expectations: MS-PS1-1; MS-PS1-2; MS-PS1-3; MS-PS1-5; MS-PS1-6; MS-LS1-6; MS-LS1-7; MSS-ESS3-1; MS-ESS3-3; MS-ESS3-5 Science and Engineering Practices: Practice 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS1.B; LS1.C; ESS3.A; ESS3.C; ESS3.D Crosscutting Concepts: Scale, Proportion, and Quantity; Patterns; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
3	Chapter 3 Lessons Lesson 3.1: "What Happens When Fuels Burn?" Lesson 3.2: Burning at the Atomic Scale Lesson 3.3: Investigating How Products Form Lesson 3.4: What's in Westfield's Water?	Performance Expectations: MS-PS1-1; MS-PS1-2; MS-PS1-3; MS-PS1-5; MS-PS1-6; MS-LS1-6; MS-LS1-7; MSS-ESS3-1; MS-ESS3-3; MS-ESS3-5 Science and Engineering Practices: Practice 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS1.B; LS1.C; ESS3.A; ESS3.C; ESS3.D Crosscutting Concepts: Scale, Proportion, and Quantity; Patterns; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

# Population & Resources (Jan. 18- Mar. 5)

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
1	Chapter 1 Lessons Lesson 1.1: Pre-Unit Assessment Lesson 1.2: Mysterious Moon Jelly Increase Lesson 1.3: Births and Deaths in Populations Lesson 1.4: Births and Deaths in the Jelly Population	Performance Expectations: MS-PS1-1; MS-PS1-2; MS-PS1-3; MS-PS1-5; MS-PS1-6; MS-LS1-6; MS-LS1-7; MSS-ESS3-1; MS-ESS3-3; MS-ESS3-5 Science and Engineering Practice 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS1.B; LS1.C; ESS3.A; ESS3.C; ESS3.D Crosscutting Concepts: Scale,	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

	Proportion, and Quantity; Patterns; Energy and Matter; Cause and Effect	
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Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
2	Chapter 2 Lessons Lesson 2.1: "Reproduction and Energy" Lesson 2.2: Energy Storage Molecules Lesson 2.3: Births Changing in a Population Lesson 2.4: Deaths Changing in a Population Lesson 2.5: Critical Juncture Assessment Lesson 2.6: Revisiting Key Concepts Lesson 2.7: Claims About the Jelly Increase	Performance Expectations: MS-PS1-1; MS-PS1-2; MS-PS1-3; MS-PS1-5; MS-PS1-6; MS-LS1-6; MS-LS1-7; MSS-ESS3-1; MS-ESS3-3; MS-ESS3-5 Science and Engineering Practices: 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS1.B; LS1.C; ESS3.A; ESS3.C; ESS3.D Crosscutting Concepts: Scale, Proportion, and Quantity; Patterns; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
1	Chapter 3 Lessons Lesson 3.1: "Jelly Population Explosion" Lesson 3.2: Competition in Ecosystems Lesson 3.3: More Indirect Effects Lesson 3.4: Final Arguments About the Jelly Increase	Performance Expectations: MS-PS1-1; MS-PS1-2; MS-PS1-3; MS-PS1-5; MS-PS1-6; MS-LS1-6; MS-LS1-7; MSS-ESS3-1; MS-ESS3-3; MS-ESS3-5 Science and Engineering Practices: 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS1.B;	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
1	Chapter 4 Lessons Lesson 4.1: The South Pacific Island Ecosystem Lesson 4.2: Analyzing Claims and Evidence Lesson 4.3: The Science Seminar Lesson 4.4: End-of-Unit Assessment	Performance Expectations: MS-PS1-1; MS-PS1-2; MS-PS1-3; MS-PS1-5; MS-PS1-6; MS-LS1-6; MS-LS1-7; MSS-ESS3-1; MS-ESS3-3; MS-ESS3-5 Science and Engineering Practices: 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: PS1.A; PS1.B; LS1.C; ESS3.A; ESS3.C; ESS3.D Crosscutting Concepts: Scale, Proportion, and Quantity; Patterns; Energy and Matter; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

# 5 Matter & Energy in Ecosystems (Mar. 8- Apr. 16)

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
1	Chapter 1 Lessons Lesson 1.1: Pre-Unit Assessment	Performance Expectations: MS-LS1-2; MS-LS1-6; MS-LS1-7; MS-LS2-2;	@Home lesson

	Lesson 1.2: Investigating a Biodome Lesson 1.3: Sunlight and Life Lesson 1.4: How Energy Storage Molecules Are Made Lesson 1.5: Photosynthesis in Ecosystems Lesson 1.6: Examining Data from the Biodome	MS-LS2-3; MS-LS2-4; MS-PS1-1; MS-PS1-6; MS-ESS2-1; MS-ESS3-5 Science and Engineering Practices: Practice 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: LS1.A; LS1.C; LS2.A; LS2.B; LS2.C; PS1.A; PS1.B; PS3.D; ESS2.A; ESS3.D Crosscutting Concepts: Systems and System Models; Cause and Effect; Energy and Matter	slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides
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Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
2	Chapter 2 Lessons Lesson 2.1: Carbon Dioxide in Ecosystems Lesson 2.2: How Carbon Dioxide Enters the Air Lesson 2.3: An Explanation for the Econauts Lesson 2.4: Critical Juncture Assessment Lesson 2.5: Investigating Econauts' Claims	Performance Expectations: MS-LS1-2; MS-LS1-6; MS-LS1-7; MS-LS2-2; MS-LS2-3; MS-LS2-4; MS-PS1-1; MS-PS1-6; MS-ESS2-1; MS-ESS3-5 Science and Engineering Practices: Practice 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: LS1.A; LS1.C; LS2.A; LS2.B; LS2.C; PS1.A; PS1.B; PS3.D; ESS2.A; ESS3.D Crosscutting Concepts: Systems and System Models; Cause and Effect; Energy and Matter	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle		
1	Chapter 3 Lessons Lesson 3.1: "Carbon in the Global Ecosystem"	Performance Expectations: MS-LS1-2; MS-LS1-6; MS-LS1-7; MS-LS2-2;	@Home lesson slides

Lesson 3.2: Total Carbon in an Ecosystem Lesson 3.3: Looking for the Missing Carbon Lesson 3.4: Explaining What Happened in the Biodome	MS-LS2-3; MS-LS2-4; MS-PS1-1; MS-PS1-6; MS-ESS2-1; MS-ESS3-5  Science and Engineering Practices: Practice 1; 2; 3; 4; 6; 7; 8  Disciplinary Core Ideas: LS1.A; LS1.C; LS2.A; LS2.B; LS2.C; PS1.A; PS1.B; PS3.D; ESS2.A; ESS3.D  Crosscutting Concepts: Systems and System Models; Cause and Effect; Energy and Matter	Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides
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Lesson	Title/Subtitle		
1	Chapter 4 Lessons Lesson 4.1: Analyzing Claims and Evidence Lesson 4.2: Science Seminar Lesson 4.3: Writing a Scientific Argument Lesson 4.4: End-of-Unit Assessment	Performance Expectations: MS-LS1-2; MS-LS1-6; MS-LS1-7; MS-LS2-2; MS-LS2-3; MS-LS2-4; MS-PS1-1; MS-PS1-6; MS-ESS2-1; MS-ESS3-5 Science and Engineering Practices: Practice 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: LS1.A; LS1.C; LS2.A; LS2.B; LS2.C; PS1.A; PS1.B; PS3.D; ESS2.A; ESS3.D Crosscutting Concepts: Systems and System Models; Cause and Effect; Energy and Matter	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

# 6 Plate Motion (Apr. 19- May 14)

Lesson	Title/Subtitle	Standards	Related Supplemental
			Work &

			Enrichment Activities
1	Chapter 1 Lessons Lesson 1.1: Pre-Unit Assessment Lesson 1.2: Using Fossils to Understand Earth Lesson 1.3: Exploring Earth's Plates Lesson 1.4: Analyzing Patterns at Plate Boundaries	Performance Expectations: MS-ESS2-2; MS-ESS2-3 Science and Engineering Practices: 1; 2; 4; 6; 7; 8 Disciplinary Core Ideas: ESS1.C; ESS2.A; ESS2.B Crosscutting Concepts: Patterns; Scale, Proportion, and Quantity; Cause and Effect; Systems and System Models	@Home lesson slides Amplify Tools/SIMS/Librar y Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
1	Chapter 2 Lessons Lesson 2.1: Considering What's Underneath Earth's Plates Lesson 2.2: "Listening to Earth" Lesson 2.3: Explaining Plate-Mantle Interactions Lesson 2.4: Modeling Plate-Mantle Interactions Lesson 2.5: Identifying Plate Motion at a Plate Boundary Lesson 2.6: Critical Juncture Assessment Lesson 2.7: Exploring Iceland's Plate Boundary	Performance Expectations: MS-ESS2-2; MS-ESS2-3 Science and Engineering Practices: 1; 2; 4; 6; 7; 8 Disciplinary Core Ideas: ESS1.C; ESS2.A; ESS2.B Crosscutting Concepts: Patterns; Scale, Proportion, and Quantity; Cause and Effect; Systems and System Models	@Home lesson slides Amplify Tools/SIMS/Librar y Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle		
1	Chapter 3 Lessons Lesson 3.1: Considering Rates of Plate Movement Lesson 3.2: "A Continental Puzzle" Lesson 3.3: Reconstructing Gondwanaland Lesson 3.4: Writing About Mesosaurus	Performance Expectations: MS-ESS2-2; MS-ESS2-3 Science and Engineering Practices: 1; 2; 4; 6; 7; 8 Disciplinary Core Ideas: ESS1.C; ESS2.A; ESS2.B Crosscutting Concepts: Patterns; Scale, Proportion, and Quantity; Cause and Effect; Systems and System Models	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

#### **Chapter 4** Title/Subtitle Lesson @Home lesson Chapter 4 Lessons **Performance Expectations:** Lesson 4.1: Plate Motion Near Jalisco, Mexico MS-ESS2-2; MS-ESS2-3 slides Lesson 4.2: Participating in a Science Seminar **Science and Engineering Practices:** Amplify Lesson 4.3: Writing a Scientific Argument Tools/SIMS/Library 1; 2; 4; 6; 7; 8 Lesson 4.4: End-of-Unit Assessment Nearpod **Disciplinary Core Ideas:** ESS1.C; Pear Deck ESS2.A; ESS2.B 1 Lab Aides **Crosscutting Concepts**: Patterns; Scale, Proportion, and Quantity; Cause and Effect; Systems and System Models

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### **Rock Transformations (May 17- June 4)**

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
1	Chapter 1 Lessons Lesson 1.1: Pre-Unit Assessment Lesson 1.2: Studying Rock Formations and Samples Lesson 1.3: Investigating How Rocks Are Formed Lesson 1.4: Modeling How Rocks Are Formed Lesson 1.5: Examining Evidence About Rocks	Performance Expectations: MS-ESS1-3; MS-ESS2-1; MS-ESS2-2; MS-ESS2-3; MS-ESS3-1 Science and Engineering Practices: 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: ESS1.B; ESS2.A; ESS2.C; ESS3.A; ESS3.C Crosscutting Concepts: Energy and Matter; Systems and System Models; Stability and Change; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle	Standards	Related Supplemental Work & Enrichment Activities
2	Chapter 2 Lessons Lesson 2.1: Exploring How Magma and Sediment Form Lesson 2.2: "Devils Tower" Lesson 2.3: Energy's Role in Forming Rocks Lesson 2.4: Explaining How Energy Affects Rocks Lesson 2.5: Critical Juncture Assessment Lesson 2.6: Investigating Hawaiian Rocks	Performance Expectations: MS-ESS1-3; MS-ESS2-1; MS-ESS2-2; MS-ESS2-3; MS-ESS3-1 Science and Engineering Practices: 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: ESS1.B; ESS2.A; ESS2.C; ESS3.A; ESS3.C Crosscutting Concepts: Energy and Matter; Systems and System Models; Stability and Change; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle		
3	Chapter 3 Lessons Lesson 3.1: "The Oldest Rock Formations on Earth" Lesson 3.2: Moving Rock Formations Lesson 3.3: Plate Motion and Rock Transformations Lesson 3.4: Preparing the Final Report	Performance Expectations: MS-ESS1-3; MS-ESS2-1; MS-ESS2-2; MS-ESS2-3; MS-ESS3-1 Science and Engineering Practices: 1; 2; 3; 4; 6; 7; 8 Disciplinary Core Ideas: ESS1.B; ESS2.A; ESS2.C; ESS3.A; ESS3.C Crosscutting Concepts: Energy and Matter; Systems and System Models; Stability and Change; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides

Lesson	Title/Subtitle		
4	Chapter 4 Lessons Lesson 4.1: Examining Evidence from Venus Lesson 4.2: More Evidence About Venus Lesson 4.3: Engaging in a Science Seminar Lesson 4.4: End-of-Unit Assessment	Performance Expectations:  MS-ESS1-3; MS-ESS2-1; MS-ESS2-2; MS-ESS2-3; MS-ESS3-1  Science and Engineering Practices: 1; 2; 3; 4; 6; 7; 8  Disciplinary Core Ideas: ESS1.B; ESS2.A; ESS2.C; ESS3.A; ESS3.C  Crosscutting Concepts: Energy and Matter; Systems and System Models; Stability and Change; Cause and Effect	@Home lesson slides Amplify Tools/SIMS/Library Nearpod Pear Deck Lab Aides