

Nitty Gritty Science Life Science Curriculum
Suggested Pacing Guide
NGSS and TEKS Alignment

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Digital options are included for interactive notebooks, task cards, study guides, and chapter tests.

Nature of Science Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - The Ice Issue	x					PS3-4	6.3, 7.3, 8.3
	• Section 1 Notes - The Method of Science		x					
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x		6.2, 7.2, 8.2
	• Section 2 Notes - Standards of Measurement		x					
	• PowerPoint/INB Activity			x				
3	• Mini-quiz					x		6.4, 7.4, 8.4
	• Guided Inquiry Lab - Colorful Observations			x				
4	• Section 3 Notes - Graphing		x					6.2, 7.2, 8.2
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x		6.2, 6.3, 6.4, 7.2, 7.3, 7.4, 8.2, 8.3, 8.4
	• Science Stations				x			
6	• Science Stations				x			
7	• Final Draft and testing for creation station				x	x		
8	• Task Card Review and/or				x			
	• Study Guide				x			
9	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Intro to Life Science Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Eye Safety	x						6.4, 7.4, 8.4
	• Section 1 Notes - The Science of Biology		x					6.12, 7.12
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x		6.1, 7.1
	• Section 2 Notes - Science Lab Safety		x					
	• PowerPoint/INB Activity			x				
3	• Mini-quiz					x		6.4, 7.4, 8.4
	• Guided Inquiry Lab - Measure with SI Units			x				
4	• Section 3 Notes - Scientific Research and Tools		x					
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x		
	• Science Stations				x			
6	• Science Stations				x			
7	• Final Draft and testing for creation station				x	x		
8	• Task Card Review and/or				x			
	• Study Guide				x			
9	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Principles of Ecology Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Budding Ecologists	x					LS2-1, LS2-4	7.10, 8.11
	• Section 1 Notes - Nutrition and Energy		x					
	• PowerPoint/INB Activity			x			LS2-3	6.12, 7.5, 8.11
2	• Mini-quiz					x		
	• Section 2 Notes - Energy Flow in Ecosystems		x					
	• INB Activity			x				
3	• Mini-quiz					x	LS2-1, LS2-4	6.1, 7.1, 8.1, 7.10, 8.11
	• Guided Inquiry Lab - Predator/Prey Adaptations			x				
4	• Section 3 Notes - Cycles in Nature		x				LS2-3	6.5, 7.5
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS2-4	7.10, 8.11
	• Section 4 Notes - Organisms and their Environment		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz						LS2-4	7.10
	• Section 5 - Ecological Succession							
	• PowerPoint/INB Activity							
7	• Mini-quiz						LS2-1	6.12, 7.10
	• Section 6 - Biomes							
8	• Mini-quiz					x	LS1-5, LS2-3	6.3, 7.3, 8.3, 7.10, 8.11
	• Science Stations				x			
9	• Science Stations				x			
10	• Final Draft and testing for creation station				x	x		
11	• Task Card Review and/or				x			
	• Study Guide				x			
12	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Population Dynamics Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Estimating a Population	x					LS2-1, LS2-4, LS2-5	6.3, 7.3, 8.3
	• Section 1 Notes - Characteristics of Populations		x				LS2-1	7.2, 8.11
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS2-1	7.2
	• Section 2 Notes - Human Population		x					
	• PowerPoint/INB Activity			x				
3	• Mini-quiz					x	LS2-1, LS2-4, LS2-5	6.7, 7.10, 8.11
	• Guided Inquiry Lab - Sustainability in the Great Lakes			x				
4	• Section 3 Notes - Renewable & Non-renewable Resources		x				LS2-2, LS2-5	6.7
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS2-4	8.11
	• Section 4 Notes - Biodiversity		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz					x	LS2-1, LS2-2, LS2-4, LS2-5	6.3, 7.3, 8.3, 6.7, 7.10, 8.11
	• Science Stations				x			
7	• Science Stations				x			
8	• Final Draft and testing for creation station				x	x		
9	• Task Card Review and/or				x			
	• Study Guide				x			

Cell Structure & Function Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - No More Diffusion Confusion	x					LS1-2	6.3, 7.3, 8.3
	• Section 1 Notes - The Discovery of Cells		x				LS1-1	6.3, 7.3, 8.3, 6.12, 7.12
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS1-2	7.12
	• Section 2 Notes - The Plasma Membrane		x					
	• INB Activity			x				
3	• Mini-quiz					x	LS1-2	6.2, 7.2, 8.2
	• Guided Inquiry Lab - Observing Diffusion & Osmosis			x				
4	• Section 3 Notes - Eukaryotic Cell Structure		x				LS1-2	6.12, 7.12
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS1-1	6.12
	• Section 4 Notes - Prokaryotic Cell Structure		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz						LS1-2	7.12
	• Section 5 - Cellular Transport							
	• PowerPoint/INB Activity							
7	• Mini-quiz					x	LS1-1, LS1-2, LS1-3	6.3, 7.3, 8.3, 6.12, 7.12
	• Science Stations				x			
8	• Science Stations				x			
9	• Final Draft and testing for creation station				x	x		
10	• Task Card Review and/or				x			
	• Study Guide				x			
11	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Cell Processes & Energy Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Respiration	x					LS1-2, LS1-6	6.2, 7.2, 8.2
	• Section 1 Notes - Photosynthesis		x				LS1-6, PS3	7.5, 7.12
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS1-7, PS3	7.6, 7.12
	• Section 2 Notes - Cellular Respiration		x					
	• INB Activity			x				
3	• Mini-quiz					x	LS1-2, LS1-6	6.3, 7.3, 8.3
	• Guided Inquiry Lab - Cell Energy			x				
4	• Section 3 Notes - Cell Cycle		x				LS1-2	7.12
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS1-2	7.12
	• Section 4 Notes - Mitosis		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz						LS1-2	6.3, 7.3, 8.3, 7.14
	• Section 5 - DNA Structure and Replication							
	• PowerPoint/INB Activity							
7	• Mini-quiz						LS3-1	
	• Section 6 - Control System of a Cell							
	• PowerPoint/INB Activity							
8	• Mini-quiz					x	LS1-1, LS1-3, LS3-1	7.12, 7.14
	• Science Stations				x			
9	• Science Stations				x			
10	• Final Draft and testing for creation station				x	x		
11	• Task Card Review and/or				x			
	• Study Guide				x			
12	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Genetics: The Science of Heredity Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Trait Survey	x					LS3-2	6.3, 7.3, 8.3
	• Section 1 Notes - The Work of Gregor Mendel		x				LS4-6	6.3, 7.3, 8.3
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS3-2	7.11, 7.14
	• Section 2 Notes - Mendel's Laws of Heredity		x					
	• PowerPoint/INB Activity			x				
3	• Mini-quiz					x	LS3-2	6.3, 7.3, 8.3, 7.14
	• Guided Inquiry Lab - Barr Bodies			x				
4	• Section 3 Notes - Punnett Squares		x				LS3-2, LS4-4	6.3, 7.3, 8.3, 7.14
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS3-2	7.14
	• Section 4 Notes - Meiosis		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz					x	LS3-2, LS4-4	6.3, 7.3, 8.3, 7.14
	• Science Stations				x			
7	• Science Stations				x			
8	• Final Draft and testing for creation station				x	x		
9	• Task Card Review and/or				x			
	• Study Guide				x			
10	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Modern Genetics Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Leave a Message	x					LS3-1, LS3-2	6.3, 7.3, 8.3
	• Section 1 Notes - Complex Patterns of Inheritance		x				LS3-1	7.11
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS3-1	7.14
	• Section 2 Notes - The Genetic Code		x					
	• PowerPoint/INB Activity			x				
3	• Mini-quiz					x	LS3-1, LS3-2	7.14
	• Guided Inquiry Lab - Genetic Counseling			x				
4	• Section 3 Notes - Human Genetic Disorders		x				LS3-1	7.14
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS4-5	7.14
	• Section 4 Notes - Advances in Genetics		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz					x	LS3-1, LS3-2	6.3, 7.3, 8.3
	• Science Stations				x			
7	• Science Stations				x		LS3-2, LS4-5	7.14
8	• Final Draft and testing for creation station				x	x		
9	• Task Card Review and/or				x			
	• Study Guide				x			
10	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Change Over Time & Classification Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Candy Classification	x					LS4-4, LS4-6	6.3, 7.3, 8.3, 6.12
	• Section 1 Notes - Darwin's Theory of Evolution		x				LS4-4	6.3, 7.3, 8.3, 7.11
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS4-4	7.11
	• Section 2 Notes - Evolution of Populations		x					
	• INB Activity			x				
3	• Mini-quiz					x	LS4-4, LS4-6	6.3, 7.3, 8.3, 6.12, 7.11
	• Guided Inquiry Lab - Birds of a Feather			x				
4	• Section 3 Notes - The Fossil Record		x				LS4-1, LS4-2	
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS4-2	6.12, 7.11
	• Section 4 Notes - Classification		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz						LS1-1	6.12
	• Section 5 - Domains and Kingdoms							
	• PowerPoint/INB Activity							
7	• Mini-quiz					x	LS4-1, LS4-6	6.3, 7.3, 8.3
	• Science Stations				x			
8	• Science Stations				x			
9	• Final Draft and testing for creation station				x	x		
10	• Task Card Review and/or				x			
	• Study Guide				x			
11	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

The Microbial World Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Transmission of Disease	x					LS1-1	6.3, 7.3, 8.3
	• Section 1 Notes - Prokaryotes		x				LS1-1	6.12
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS1-1	6.12
	• Section 2 Notes - Viruses		x					
	• PowerPoint/INB Activity			x				
3	• Mini-quiz					x	LS1-7	6.3, 7.3, 8.3, 6.12
	• Guided Inquiry Lab - Control of Molds			x				
4	• Section 3 Notes - Protists		x				LS1-1	6.12
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS2-3	6.12
	• Section 4 Notes - Fungi		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz					x		
	• Science Stations				x			
7	• Science Stations				x		LS1-2, LS1-7	6.3, 7.3, 8.3, 6.12
8	• Final Draft and testing for creation station				x	x		
9	• Task Card Review and/or				x			
	• Study Guide				x			
10	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Plants Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Function of a Stem	x					LS1-1, LS1-3, LS1-5	6.3, 7.3, 8.3
	• Section 1 Notes - The Plant Kingdom		x				LS1-4	6.12
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS1-4	7.12
	• Section 2 Notes - Plants Without Seeds		x					
	• INB Activity			x				
3	• Mini-quiz					x	LS1-1, LS1-3, LS1-4, LS1-5	6.3, 7.3, 8.3 7.11, 7.14
	• Guided Inquiry Lab - Flower Dissection			x				
4	• Section 3 Notes - Seed Plants		x				LS1-4	6.12
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS1-4	6.3, 7.3, 8.3
	• Section 4 Notes - Flowering Plants		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz						LS1-2	7.11, 7.12
	• Section 5 - Roots, Stems, & Leaves							
	• PowerPoint/INB Activity							
7	• Mini-quiz						LS1-5	7.7, 7.11, 7.13
	• Section 6 - Plant Responses and Growth							
	• PowerPoint/INB Activity							
8	• Mini-quiz					x	LS1-2, LS1-4	6.3, 7.3, 8.3 7.11, 7.14
	• Science Stations				x			
9	• Science Stations				x			
10	• Final Draft and testing for creation station				x	x		
11	• Task Card Review and/or				x			
	• Study Guide				x			
12	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Animal Diversity: Invertebrates Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Diversity of Invertebrates	x					LS2-2	6.3, 7.3, 8.3
	• Section 1 Notes - Introduction of Animals		x				LS1-3	
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS1-8	7.13, 8.11
	• Section 2 Notes - Behavior of Animals		x					
	• INB Activity			x				
3	• Mini-quiz					x	LS1-5, LS2-2	6.3, 7.3, 8.3, 7.13
	• Guided Inquiry Lab - Earthworm Response			x				
4	• Section 3 Notes - Sponges, Cnidarians and Worms		x				LS1-4	6.12
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS1-4	6.12
	• Section 4 Notes - Mollusks, Arthropods, and Echinoderms		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz						LS1-4	6.12
	• Section 5 - Insects							
7	• PowerPoint/INB Activity						LS1-4	6.12
	• Mini-quiz					x		
8	• Science Stations				x		LS1-4, LS1-8	6.3, 7.3, 8.3, 6.12
9	• Final Draft and testing for creation station				x	x		
10	• Task Card Review and/or				x			
	• Study Guide				x			
11	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Animal Diversity: Vertebrates Science Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Structure and Support	x					LS1-4	6.3, 7.3, 8.3
	• Section 1 Notes - Intro to Vertebrates: Fish & Amphibians		x				LS1-4	6.12, 7.12
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS4-6, LS1-4	6.3, 7.3, 8.3, 6.12
	• Section 2 Notes - Reptiles & Birds		x					
	• PowerPoint/INB Activity			x				
3	• Mini-quiz					x	LS1-2, LS1-4	6.12, 7.12
	• Guided Inquiry Lab - Egg Anatomy			x				
4	• Section 3 Notes - Mammals		x				LS4-6, LS1-4, LS4-3	6.12, 7.11, 7.12
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS1-2, LS1-4	6.3, 7.3, 8.3, 7.13
	• Science Stations				x			
6	• Science Stations				x		LS1-4	
7	• Final Draft and testing for creation station				x	x		
8	• Task Card Review and/or				x			
	• Study Guide				x			
9	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Human Body: Part 1 Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Body Systems	x					LS1-1, LS1-3	6.3, 7.3, 8.3, 7.12
	• Section 1 Notes - The Skin		x				LS1-3	6.3, 7.3, 8.3, 7.12
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS1-3	7.12
	• Section 2 Notes - Muscular System		x					
	• INB Activity			x				
3	• Mini-quiz					x	LS1-1, LS1-3	6.3, 7.3, 8.3, 7.12
	• Guided Inquiry Lab - Bending Bones			x				
4	• Section 3 Notes - Skeletal System		x				LS1-3	7.12
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS1-8	7.12
	• Section 4 Notes - Nervous System		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz						LS1-3	6.3, 7.3, 8.3, 7.6, 7.12
	• Section 5 - Digestive System							
	• PowerPoint/INB Activity							
7	• Mini-quiz					x	LS1-1, LS1-3, LS1-8	7.12
	• Science Stations				x			
8	• Science Stations				x			
9	• Final Draft and testing for creation station				x	x		
10	• Task Card Review and/or				x			
	• Study Guide				x			
11	• Chapter Test					x		
	• Have students complete notes for next chapter	x						

Human Body: Part 2 Pacing Guide

The following is a **suggested pacing guide** which is based on 50-minute class periods.

Day	Lesson/Activity	Engage	Explain	Explore	Elaborate	Evaluate	NGSS	TEKS
1	• Teacher Demo - Effects of Physical Activity	x					LS1-1, LS1-3	6.3, 7.3, 8.3
	• Section 1 Notes - Respiratory System		x				LS1-3	6.3, 7.3, 8.3, 7.12
	• PowerPoint/INB Activity			x				
2	• Mini-quiz					x	LS1-3	7.12
	• Section 2 Notes - Excretory System		x					
	• INB Activity			x				
3	• Mini-quiz					x	LS1-1, LS1-3	6.2, 7.2, 8.2
	• Guided Inquiry Lab - Tidal Volume			x				
4	• Section 3 Notes - Cardiovascular System		x				LS1-3	7.12
	• PowerPoint/INB Activity			x				
5	• Mini-quiz					x	LS1-1	7.12
	• Section 4 Notes - Blood		x					
	• PowerPoint/INB Activity			x				
6	• Mini-quiz						LS1-3	7.12
	• Section 5 - Endocrine and Reproductive System							
	• PowerPoint/INB Activity							
7	• Mini-quiz					x	LS1-1, LS1-2, LS1-3	6.3, 7.3, 8.3, 7.12
	• Science Stations				x			
8	• Science Stations				x			
9	• Final Draft and testing for creation station				x	x		
10	• Task Card Review and/or				x			
	• Study Guide				x			
11	• Chapter Test					x		
	• Have students complete notes for next chapter	x						