

Grade 3

Unit 3: Life Cycles & Inherited Traits

New Jersey Student Learning Standards

Established: 2016-2017
Revised: 2018-2019
Revised: 2019-2020
Revised: 2020-2021
Revised: 2022-2023
Revised: 2023-2024
Revised: 2024-2025



[NJSLS Climate Change Companion Guide](#)

Trimester		Unit Title		Recommended Instructional Days
2		Unit 3: Life Cycles & Inherited Traits		30 Days
NJSLS - Science: <i>Title</i>	NJSLS - Science: <i>Performance Expectations</i>		<p style="text-align: center;">Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSL-S within Unit</p>	
Life Science	3-LS1-1 3-5-ETS1-1 3-LS2-1 3-5-ETS1-2 3-LS3-1 3-5-ETS1-3 3-LS4-2			
FOUNDATION Disciplinary: <i>Core Idea</i>	FOUNDATION Disciplinary: <i>Statement</i>			
<ul style="list-style-type: none"> LS1.B - Growth and Development of Organisms LS3.A - Inheritance of Traits LS3.B - Variations of Traits LS2.D - Social Interactions and Group Behavior LS4.B - Natural Selection 	Understand that organisms have unique and diverse life cycles, but all have in common birth, growth, reproduction, and death and certain traits are inherited from parents.			
FOUNDATION Science and Engineering Practices: <i>Core Idea</i>	FOUNDATION Science and Engineering Practices: <i>Statement</i>			
<ul style="list-style-type: none"> Developing and Using Models Analyzing and Interpreting Data 	<ul style="list-style-type: none"> Analyze and interpret data to make sense of a phenomenon, construct 		<p>Essential Question/s:</p> <ul style="list-style-type: none"> What are some plant and animal life cycles? How are the ways plants and animals grow and change similar and different? What are inherited plant and animal traits? What are some strategies organisms use to be successful in their environment? <p>Activity Description:</p> <p>Anchoring Phenomenon: Both plants and animals will change throughout their lives.</p>	

<ul style="list-style-type: none"> Scientific Knowledge Is Based on Empirical Evidence Scientific Investigations Use a Variety of Methods 	<p>explanations & design solutions, and use evidence to support an explanation.</p>	<p>Engage</p> <ul style="list-style-type: none"> Can You Explain It? FUNomenal Reader <p>Explore/Explain</p> <ul style="list-style-type: none"> Investigate phenomena through hands-on activities & explorations <p>Suggested Activities</p> <ul style="list-style-type: none"> “Exploring a Change” - Explore and investigate how organisms change throughout their lives. “How do Life Cycles Differ?” - Explore and investigate differences in life cycles. “Comparing Life Cycles” - Explore and investigate how plant and animal life cycles have similarities and differences. “Broken Cycles” - Explore and Investigate how life cycles can be interrupted. “So Many Changes” - Explore and investigate patterns in the growth of organisms. <p>Elaborate: Take it Further</p> <ul style="list-style-type: none"> Use district-approved online resources to research and elaborate on the anchoring phenomenon Careers in Science & Engineering: Beekeeper - learn more about beekeepers and how they keep the world’s crop pollinated. People in Science & Engineering: Stephen Baca and Nancy Miorelli Careers in Science & Engineering: Embryologist - explore the careers of scientists known as embryologists and the specific part of the animal life cycle they study.
<p>FOUNDATION Crosscutting Concepts: <i>Core Idea</i></p>	<p>FOUNDATION Crosscutting Concepts: <i>Statement</i></p>	
<ul style="list-style-type: none"> Identifying Patterns Identifying Cause & Effect 	<ul style="list-style-type: none"> Understand that similarities and differences in patterns can be used to sort and classify natural phenomena. Cause and effect relationships are routinely identified and used to explain change. 	
<p>Social and Emotional Learning: <i>Competencies</i></p>	<p>Social and Emotional Learning: <i>Sub-Competencies</i></p>	
<ul style="list-style-type: none"> Self-Awareness Self-Management Social Awareness Responsible Decision-Making Relationship Skills 	<ul style="list-style-type: none"> Recognize the importance of self-confidence in handling daily tasks and challenges Recognize the skills needed to establish and achieve personal and educational goals Demonstrate an understanding of the need for mutual respect when viewpoints differ Develop, implement, and model effective problem-solving and critical thinking skills 	

	<ul style="list-style-type: none">Utilize positive communication and social skills to interact effectively with others	<p><u>Activity Description:</u></p> <p>Anchoring Phenomenon: Both plants and animals resemble their parents but are not identical to them.</p> <p>Engage</p> <ul style="list-style-type: none">Can You Explain It?FUNomenal Reader <p>Explore/Explain</p> <ul style="list-style-type: none">Investigate phenomena through hands-on activities & explorations <p>Suggested Activities</p> <ul style="list-style-type: none">“What Will it Look Like?” - Explore and investigate how offspring inherit traits from their parents.“Monster Traits” - Explore and investigate how offspring can look different from each other.“Parents and Offspring” - Explore and investigate how traits can be used to identify relationships. <p>Elaborate: Take it Further</p> <ul style="list-style-type: none">Use district-approved online resources to research and elaborate on the anchoring phenomenonCareers in Science & Engineering: Dr. Rick Kittles (a biologist who studies the genes of past and present generations of African Americans)People in Science & Engineering: Alan Turing“Hot Diggity Dog” - explore inherited traits of different breeds of dogs.
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		<p><u>Activity Description:</u></p> <p>Anchoring Phenomenon: Organisms have advantages for surviving in their environment.</p> <p>Engage</p> <ul style="list-style-type: none">- Can You Explain It?- FUNomenal Reader <p>Explore/Explain</p> <ul style="list-style-type: none">- Investigate phenomena through hands-on activities & explorations <p>Suggested Activities</p> <ul style="list-style-type: none">- “Battle of the Beans!” - explore and investigate how colors and patterns can help protect organisms in their environment.- “All for One” - explore and investigate how being in a large group gives individual organisms better odds of survival.- “Differences that Win” - explore and investigate how physical traits may give some organisms an advantage in their environment.- “Better Together” - explore and investigate how working together provides some animals with specific advantages. <p>Elaborate: Take it Further</p> <ul style="list-style-type: none">- Use district-approved online resources to research and elaborate on the anchoring phenomenon- Careers in Science & Engineering: Wildlife Expert - explore the work of wildlife experts, specifically those who study variations in animals.- People in Science & Engineering: Mary Talbot
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		<p>- Hidden Animals - design an experiment to test how characteristics of animals help them survive in their environment.</p> <p>Amistad Law/Diversity & Inclusion</p> <p>Take if Further: Conduct a research study on Roger Arliner Young, who was the first African American woman to receive a doctorate in zoology.</p> <p>Conduct a research study on Dr. Rick Kittles, a biologist who studies the genes of past and present generations of African Americans.</p> <p>Interdisciplinary Connections - Mathematics:</p> <p>3DL.A - Understand data-based questions and data collection</p> <p>3DL.B - Represent and interpret data</p> <p>Interdisciplinary Connections - English Language Arts:</p> <p>RI.CR.3.1 - Ask and answer questions to demonstrate understanding of a text</p> <p>RI.IT.3.3- Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.</p> <p>RI.CI.3.2. Recount in oral and written form key details from a text and explain how they support the main idea (in multi-paragraph informational text).</p> <p>RI.MF.3.6. Use information gained from text features (e.g., illustrations, maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).</p> <p>RI.AA.3.7. Describe the logical connection between particular sentences and</p>
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		<p>paragraphs in a text (e.g., comparison, cause/effect, first/second/third in a sequence) to support specific points the author makes in a text.</p> <p>RI.CT.3.8. Compare and contrast the elements of informational texts regarding the most important points and key details presented in two texts on the same topic.</p> <p>W.WR.3.5. Generate questions about a topic and independently locate related information from at least two reference sources (print and non-print) to obtain information on that topic.</p> <p>W.SE.3.6 - Use discussion, books, or media resources to gather ideas, outline them, and prioritize the information to include while planning to write about a topic.</p> <p>SL.PI.3.4. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace. 🌱</p>
<p align="center">Assessments (Formative) <i>To show evidence of meeting the standard/s, students will successfully engage within:</i></p>		<p align="center">Assessments (Summative) <i>To show evidence of meeting the standard/s, students will successfully complete:</i></p>
<p>Formative Assessments:</p> <ul style="list-style-type: none"> ● Making Sense of Phenomena ● Lesson Check ● Lesson Quiz 		<p>Benchmarks:</p> <ul style="list-style-type: none"> ● District Assessment 2 <p>Summative Assessments:</p>

<ul style="list-style-type: none"> Evidence notebooks 	<ul style="list-style-type: none"> Unit Assessment <p><u>Alternative Assessment:</u></p> <ul style="list-style-type: none"> Performance-Based Assessment Unit Project Unit Performance Task
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**Differentiated Student Access to Content:
Teaching and Learning *Resources/Materials***

Core Resources	Alternate Core Resources <i>IEP/504/At-Risk/ESL</i>	ELL Core Resources	Gifted & Talented Core Resources
<ul style="list-style-type: none"> Evidence Notebook Equipment Kit FUNomenal Readers Idea Organizer Language Development Worksheet Online Simulations Into Science TE Into Science SE District-Approved Resources 	<p>In addition to Core Resources:</p> <ul style="list-style-type: none"> FUNomenal Readers Multilingual Glossary 	<p>In addition to Core Resources:</p> <ul style="list-style-type: none"> FUNomenal Readers Multilingual Glossary Multilingual Home Letters 	<p>In addition to Core Resources:</p> <ul style="list-style-type: none"> FUNomenal Readers

Supplemental Resources

<p>Technology:</p> <ul style="list-style-type: none"> Chromebook SMARTBoard/Promethean Board

- District-Approved Resources

Ed Science Platform:

- Digital Assessments
- Digital Performance Tasks
- You Solve It Simulations
- Student eBook
- Video-Based Projects
- Science Tools
- Online Glossary

**Differentiated Student Access to Content:
Recommended *Strategies & Techniques***

Core Resources	Alternate Core Resources <i>IEP/504/At-Risk/ESL</i>	ELL Core Resources	Gifted & Talented Core
<ul style="list-style-type: none"> ● Deliver instruction utilizing varied learning styles including audio, visual, and tactile/kinesthetic ● Provide individual instruction as needed 	<ul style="list-style-type: none"> ● Utilize a multi-sensory (VAKT) approach during instruction ● Provide alternate presentations of skills by varying the method (repetition, simple explanations, additional examples, modeling, etc.) ● Modify test content and/or format ● Allow students to retake test for additional credit, ● Provide additional times and preferential seating as needed, ● Review, restate and 	<ul style="list-style-type: none"> ● Extend time requirements ● Preferred seating ● Positive reinforcement ● Check often for understanding/review ● Oral/visual directions/prompts when necessary ● Supplemental materials including use of online bilingual dictionaries, and modified assessment and/or rubric. 	<ul style="list-style-type: none"> ● Create an enhanced set of introductory activities ● Integrate active teaching/learning opportunities ● Incorporate authentic components ● Propose interest-based extension activities ● Connect students to related talent development

	<p>repeat directions</p> <ul style="list-style-type: none"> • Provide study guides, and/or break assignments into segments of shorter tasks 		
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<p>NJSLS CAREER READINESS, LIFE LITERACIES & KEY SKILLS</p>	<p>Disciplinary Concept:</p> <ol style="list-style-type: none"> 1. Career Awareness & Planning 2. Creativity and Innovation 3. Critical Thinking & Problem-Solving 4. Global & Cultural Awareness 5. Information and Media Literacy 6. Technology Literacy 	
	<p><i>Core Ideas:</i></p>	<ul style="list-style-type: none"> • An individual’s passions, aptitude and skills can affect his/her employment and earning potential. • Collaboration with individuals with diverse perspectives can result in new ways of thinking and/or innovative solutions • Curiosity and a willingness to try new ideas (intellectual risk-taking) contributes to the development of creativity and innovation skills. • The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills. • Individuals from different cultures may have different points of view and experiences. • Culture and geography can shape an individual’s experiences and perspectives.

		<ul style="list-style-type: none"> • Specific situations require the use of relevant sources of information. • Different digital tools have different purposes. • Collaborating digitally as a team can often develop a better artifact than an individual working alone.
	<i>Performance Expectation/s:</i>	<ul style="list-style-type: none"> • 9.2.5.CAP.1: Evaluate personal likes and dislikes and identify careers that might be suited to personal likes. • 9.2.5.CAP.3: Identify qualifications needed to pursue traditional and non-traditional careers and occupations. • 9.2.5.CAP.4: Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements • 9.4.5.CI.1: Use appropriate communication technologies to collaborate with individuals with diverse perspectives about a local and/or global climate change • 9.4.5.CI.3: Participate in a brainstorming session with individuals with diverse perspectives to expand one’s thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a). • 9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3). • 9.4.5.GCA.1: Analyze how culture shapes individual and community perspectives and points of view (e.g., 1.1.5.C2a, RL.5.9, 6.1.5.HistoryCC.8). • 9.4.5.IML.6: Use appropriate sources of information from diverse sources, contexts, disciplines, and cultures to answer questions (e.g., RI.5.7, 6.1.5.HistoryCC.7, 7.1.NM. IPRET.5). • 9.4.5.TL.3: Format a document using a word processing application to enhance text, change page formatting, and include appropriate images, graphics, or symbols. • 9.4.5.TL.5: Collaborate digitally to produce an artifact (e.g., 1.2.5CR1d).

	Career Readiness, Life Literacies, & Key Skills Practices
	<ul style="list-style-type: none"> ● Act as a responsible and contributing community member and employee. ● Consider the environmental, social and economic impacts of decisions. ● Demonstrate creativity and innovation. ● Utilize critical thinking to make sense of problems and persevere in solving them. ● Model integrity, ethical leadership and effective management. ● Plan education and career paths aligned to personal goals. ● Use technology to enhance productivity, increase collaboration and communicate effectively. ● Work productively in teams while using cultural/global competence.

New Jersey Legislative Statutes and Administrative Code (place an "X" before each law/statute if/when present within the curriculum map)									
X	Amistad Law: <i>N.J.S.A. 18A 52:16A-88</i>		Holocaust Law: <i>N.J.S.A. 18A:35-28</i>		LGBT and Disabilities Law: <i>N.J.S.A. 18A:35-4.35</i>	X	Diversity & Inclusion: <i>N.J.S.A. 18A:35-4.36a</i>	X	Standards in Action: <i>Climate Change</i>