Grade 4 – Science Pacing Calendar

Newsela: Seasonal STEAM Projects

	Week 1	Week 2	Week 3	Week 4
September **A Walk in the Park (8 weeks) Start: 9/8/25** **Password: Structure26**	Beginning of the Year Assessments **Newsela Link:** Engineering Design Process **Newsela link** Science Claim-Evidence-Reasoning Activities Lab Safety	**Structure, Function, + Information Processing** **4-LS1-1**: Construct an argument that animals and plants have internal and external structures that support their survival, growth, behavior, and reproduction **3-LS1-1**: Develop models to describe that organisms have unique and diverse life cycles. **3-LS3-2**: Use evidence to support the explanation that traits can be influenced by the environment. **5-LS1-1**: Support an argument that plants get the materials they need for growth chiefly from air and water. **Plant parts and how they function** Newsela Link	**Structure, Function, + Information Processing** **4-LS1-1**: Construct an argument that animals and plants have internal and external structures that support their survival, growth, behavior, and reproduction **3-LS1-1**: Develop models to describe that organisms have unique and diverse life cycles. **3-LS3-2**: Use evidence to support the explanation that traits can be influenced by the environment. **5-LS1-1**: Support an argument that plants get the materials they need for growth chiefly from air and water. **Animal parts and how they function** Newsela Link	**Structure, Function, + Information Processing** **4-LS1-2**: Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond in different ways. **How the senses work** Newsela Link **Generation Genius:** Structure of living things Science Benchmarks
October **Riding the Waves of Information (7 weeks) Start: 10/13/25** **Password: Binary26**	**Structure, Function, + Information Processing** **3-LS3-1**: Analyze and interpret data to provide evidence that plants and animals have traits inherited from parents. **3-LS3-2**: Use evidence to support the explanation that traits can be influenced by the environment. **STEM Activity:** Exploring the 5 Senses	**Waves: Waves + Information** **4-PS4-1**: Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move. **Waves** Newsela Link **Generation Genius:** Wave properties	**Waves: Waves + Information** **4-PS3-2**: Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents. **4-PS4-3**: Generate and compare multiple solutions that use patterns to transfer information **3-PS2-2**: Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion.	**Waves: Waves + Information** **4-PS3-2**: Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents. **Literacy:** (Narrative Fictional) Imagine you wake up one morning with the amazing ability to *see* and *hear* invisible waves—like sound waves, water waves, and even light waves! You suddenly discover that these waves carry information all around you. Maybe you hear a radio signal from space, ride a giant sound wave,

Grade 4 – Science Pacing Calendar

	Literacy: Plants and animals have special parts that help them survive, grow, and respond to the world around them. Think about the body parts of animals and the parts of plants. How do these parts help them live? Also, think about how animals (including humans) use their senses to gather information and react to what's happening around them. Write an informative essay that explains: • At least one body part of an animal and how it helps the animal survive. • At least one part of a plant and how it helps the plant grow or stay alive. • How senses (like sight, smell, or touch) help animals understand and respond to their environment. Use facts, details, and examples to explain what you've learned.		**Information transfer** **Generation Genius:** Information transfer Toddle Reflections **STEM Activity:** Waves and Sounds	or use light waves to send a secret message. Write a fictional story about your adventure with waves. In your story, be sure to: • Describe the special waves you can sense and what they do. • Explain how the waves carry information or help you solve a problem. • Include a beginning, middle, and end with exciting events and a creative solution. Let your imagination ride the waves! **STEM Projects** Research and plan your project
November **Powering Thru the Fair (8 weeks) Start: 11/17/25** **Password: Contest26**	**STEM Projects** Build projects	**STEM Night** **November 13, 2025** Complete display boards Toddle reflections **Energy** Energy transfer and transformation Newsela Link **Generation Genius:** Energy transfer	**Energy** **4-PS3-3**: Ask questions and predict outcomes about the changes in energy that occur when objects collide. **Collisions** Newsela Link **Generation Genius:** Collisions **STEM Activity:** Energy Transformation in a Roller Coaster	**Energy** **4-PS3-4**: Apply scientific ideas to design, test, and refine a device that converts energy from one form to another. **STEM Activity:** Build a Simple Electrical Circuit **NYS Elementary- Level Science Investigation** **Energy: Light it Up**

Grade 4 – Science Pacing Calendar

December **Earth's Processes in NYS (13 weeks) Start: 12/1/25** **Password: Changes26**	**Earth's Systems: Processes that Shape the Earth** **4-ESS1-1**: Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time. **Factors that shape Earth's surface** Newsela Link	**Earth's Systems: Processes that Shape the Earth** **4-ESS2-1**: Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. **Fast and slow changes** Newsela Link	**Earth's Systems: Processes that Shape the Earth** **4-ESS1-1**: Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time **Rock layers record landform changes** Newsela Link **Generation Genius:** Earth's landscapes	**Holiday Recess School Closed**
January	**Holiday Recess School Closed**	**Earth's Systems: Processes that Shape the Earth** Newsela link **Generation Genius:** Weathering and erosion Toddle reflections Movie: Jurassic Park	**Earth's Systems: Processes that Shape the Earth** **Literacy:** Narrative + Informative Elements (Fictional Journal/Review) You are trapped in *Jurassic Park*! A huge storm has caused landslides, floods, and broken fences—letting dinosaurs escape into the park. As the land shifts and changes, you must find a way to survive while learning about the powerful forces shaping the Earth around you. Write a survival journal *as if you are a character inside the movie*. In your writing, be sure to: • Describe how Earth's systems (like weather, erosion, or natural disasters) helped shape what's happening in the park. • Choose **one dinosaur** to research and include real facts about how it lived, what it ate, and how it might react in the wild. • Explain what challenges you faced and how you escaped	**Earth's Systems: Processes that Shape the Earth** **Engineering:** Design and build your *Jurassic Park. Create a diorama, poster, etc to model your adventure park. Be creative!*

Grade 4 – Science Pacing Calendar

			(or tried to escape) from the dinosaur. • Use exciting story details, science facts, and strong organization with a beginning, middle, and end. Would you recommend Jurassic Park after surviving it? Or warn others to stay far away? Write your adventure to find out!	
February	**Earth's Systems: Processes that Shape the Earth** **4-ESS2-1**: Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. **3-ESS2-1**: Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season. **Patterns on earth** Newsela link **Generation Genius:** Water Cycle	**Earth's Systems: Processes that Shape the Earth** **4-ESS3-2**: Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans. **3-ESS3-1**: Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard. **Reducing the impacts of natural hazards** Newsela link **Generation Genius:** Natural disasters	**Winter Recess School Closed**	**Earth's Systems: Processes that Shape the Earth** **4-ESS3-1**: Obtain and combine information to describe that energy and fuels are derived from natural resources and that their uses affect the environment. **5-ESS3-1**: Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. **Resources** **Generation Genius:** Renewable vs non-renewable resources
March	**NYS Elementary- Level Science Investigation** **4-PS3-4**: Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.	Trip: Cradle of Aviation	**Literacy:** Create a journal explaining your science experiences at the Cradle of Aviation. Connect your experiences to specific content covered.	**EARTH DAY PROJECTS**

Grade 4 – Science Pacing Calendar

	Lab Makeups: • **Life Cycles** • **Energy: Light it Up**			
April ED Gallery School Walks	NYS Assessments **EARTH DAY PROJECTS** **4-ESS3-2**: Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans. **5-ESS3-1**: Use science ideas to protect Earth's resources and environment.	**Spring Recess** **School Closed**	**EARTH DAY PROJECTS** **Earth Day – April 22, 2026**	**Gallery walks + Celebrations**
May	Standard: **1-ESS3-1** – Extend understanding of human environmental impact. **STEM Project:** Build upon your repurposed object.	**End of Year Assessments** **STEM Night** **May 19, 2025** Toddle reflection	**End of Year Assessments** Review and integrate all covered: 4-LS1, 4-PS3, 4-PS4, 4-ESS series Review of 3-LS, 3-PS, and 3-ESS series to reinforce prior learning Newsela Link **Literacy:** Create a journal explaining your science experiences this year. Connect your experiences to specific content covered.	**End of Year Assessments** Prepare for 5th-grade content and revisit 5-LS, 5-PS, and 5-ESS series to build bridge across grades
June	**End of Year Assessments**	**End of Year Assessments**	**End of Year Activities**	**End of Year Activities**