

First Grade Science

Course Compendium

UNITS OF STUDY*

Unit 1- *Patterns of Change in the Night Sky*

Unit 2- *Characteristics of Living Things*

Unit 3- *Mimicking Organisms to Solve Problems*

Unit 4- *Light and Sound*

INTERDISCIPLINARY CONNECTIONS

ELA Standards:

- W.1.2. Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.
- W.1.7. Participate in shared research and writing projects (e.g., explore a number of “how-to” books on a given topic and use them to write a sequence of instructions).
- W.1.8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- RI.1.1. Ask and answer questions about key details in a text.
- RI.1.2. Identify the main topic and retell key details of a text.
- RI.1.3. Describe the connection between two individuals, events, ideas, or pieces of information in a text
- W.1.2. 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.
- SL.1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
- SL.1.5. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.

Math Standards

- MP.1. Make sense of problems and persevere in solving them.
- MP.2. Reason abstractly and quantitatively.
- MP.4. Model with mathematics.
- MP.5. Use appropriate tools strategically.
- 1.OA.A.1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations to represent the problem.
- 1.MD.C.4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. (1-ESS1-2) 1.MD.C.4
- 1. MD. A.2. . Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end

**See individual units for Pacing Guide, NJSL Standards, Transfer Skills, Enduring Understandings, Essential Questions, Learning Objectives, Key Vocabulary, Skills, Resources, & Assessments*

to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.

21st Century Life and Careers

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.
- 9.2.4.A.3 Investigate both traditional and nontraditional careers and relate information to personal likes and dislikes.
- 9.2.4.A.4 Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Technology

- 8.2.2.B.4 Identify how the ways people live and work has changed because of technology.
- 8.2.2.C.1 Brainstorm ideas on how to solve a problem or build a product.

GENERAL CONSIDERATIONS FOR DIVERSE LEARNERS		
English Language Learners	Students Receiving Special Education Services	Advanced Learners
<ul style="list-style-type: none"> • WIDA Can Do Descriptors for Kindergarten* • WIDA Essential Actions Handbook • FABRIC Paradigm • Wall Township ESL Grading Protocol <p>*Use WIDA Can Do Descriptors in coordination with Student Language Portraits (SLPs).</p> <p>Potential Accommodations for ELLs</p> <ul style="list-style-type: none"> • Personal glossary • Text-to-speech • Extended time • Simplified / verbal instructions • Frequent breaks • Small group/One to one • Additional time 	<ul style="list-style-type: none"> • New Jersey Tiered System of Supports • National Center on Universal Design for Learning - About UDL • UDL Checklist • UDL Key Terms <p>Students within this class receiving Special Education/Section 504 programming have specific goals and objectives, as well as accommodations and modifications outlined within their Individualized Education Plans (IEP)/504 Plans due to an identified disability and/or diagnosis. In addition to exposure to the general education curriculum, instruction is differentiated based upon the student's needs. The IEP/504 Plan acts as a supplemental curriculum guide inclusive of instructional strategies that support each specific learner.</p> <p>Potential Accommodations for Special Education</p> <p>Presentation accommodations:</p>	<ul style="list-style-type: none"> • Knowledge and Skill Standards in Gifted Education for All Teachers • Pre-K-Grade 12 Gifted Programming Standards • Gifted Programming Glossary of Terms <p>Potential Accommodations for Advanced Learners</p> <ul style="list-style-type: none"> • Use of high level academic vocabulary/texts • Problem-based learning • Pre-assess to condense curriculum • Interest-based research • Authentic problem-solving • Homogeneous grouping opportunities
		Students with 504 Plans

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<ul style="list-style-type: none"> ● Review of directions ● Student restates information ● Extra visual and verbal cues and prompts ● Preferential seating ● Verbal and visual cues regarding directions and staying on task ● Checklists ● Immediate feedback 	<ul style="list-style-type: none"> ● Listen to audio recordings instead of reading text ● Pre-teach unknown vocabulary through pictures or videos, and relate to prior knowledge ● Work with fewer items per page and/or materials in a larger print size ● Use a visual blocker ● Use visual presentations of verbal material, such as word webs and visual organizers ● Be given a written list of instructions/picture cues <p>Response accommodations:</p> <ul style="list-style-type: none"> ● Give responses in a form (oral or written) that's easier for him/her ● Dictate answers to a scribe ● Capture responses on an audio recorder ● Use a spelling dictionary or electronic spell-checker ● Use a word processor to give responses in class ● Use a calculator or table of "math facts" <p>Setting accommodations:</p> <ul style="list-style-type: none"> ● Work or take a test in a different setting, such as a quiet room with few distractions ● Sit where he/she learns best (for example, near the teacher) ● Take a test in small group setting <p>Timing accommodations:</p> <ul style="list-style-type: none"> ● Take more time to complete a task or a test ● Have extra time to process oral information and directions ● Take frequent breaks, such as after completing a task <p>Assignment modifications:</p> <ul style="list-style-type: none"> ● Complete fewer or different homework problems than peers ● Shorten assignment ● Answer fewer or different test questions ● Create alternate projects or assignments 	<p>Teachers are responsible for implementing designated services and strategies identified on a student's 504 Plan.</p>
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Alternative Assessments
Choice Boards
Games and Tournaments
Group Investigations
Guided Reading
Learning Contracts
Leveled Rubrics
Literature Circles
Multiple Texts
Personal Agendas

Independent Research & Projects
Multiple Intelligence Options
Project-Based Learning
Varied Supplemental Activities
Varied Journal Prompts or RAFT Writing
Tiered Activities/Assignments
Tiered Products
Graphic Organizers
Choice of Books/Activities
Mini-Workshops to Reteach or Extend
Think-Pair-Share by readiness or interest
Use of Collaboration of Various Activities

Jigsaw
Think-Tac-Toe
Cubing Activities
Exploration by Interest
Flexible Grouping
Goal-Setting with Students
Homework Options
Open-Ended Activities
Use of Reading Buddies
Varied Product Choices
Stations/Centers
Work Alone/Together