Crest Memorial School Curriculum and Pacing Guide	
Grade: 5th	Subject Area: Science
Adoption Date:	Revision Date: February 16, 2024

Mission and Vision Statements

Mission: All students will possess an understanding of scientific concepts and processes required for personal decision-making, participation in civic life, and preparation for careers in STEM fields (for those that chose).

Vision: Prepare students to become scientifically literate individuals who can effectively:

- Apply scientific thinking, skills, and understanding to real-world phenomena and problems;
- Engage in systems thinking and modeling to explain phenomena and to give a context for the ideas to be learned;
- Conduct investigations, solve problems, and engage in discussions;
- Discuss open-ended questions that focus on the strength of the evidence used to generate claims;
- Read and evaluate multiple sources, including science-related magazine and journal articles and web-based resources to gain knowledge about current and past science problems and solutions and develop well-reasoned claims; and
- Communicate ideas through journal articles, reports, posters, and media presentations that explain and argue.

Integration of Technology

9.4.2.TL.2: Create a document using a word processing application.
9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content.

21st Century Skills

9.3.12.AG-FD.2 Apply principles of nutrition, biology, microbiology, chemistry and human behavior to the development of food products.
9.3.12.AG-NR.2 Analyze the interrelationships between natural resources and humans.
9.3.HL-BRD.4 Demonstrate the principles of solution preparation, sterile techniques, contamination control, and measurement and calibration of instruments used in biotechnology research.

Career Education
9.4.8.CT.3: Compare past problem-solving solutions to local, national, or global issues and analyze the factors that led to a positive or negative outcome.

Interdisciplinary Connection
RH.6-8.1 Cite specific textual evidence to support analysis of primary and secondary sources

Accommodations and Modifications	
Special Education	● follow 504/IEP accommodations ● create visual word wall with labels ● highlight and define important vocabulary ● ask yes/no questions ● provide sentence frames or sentence stems ● allow for use of pictures in science journal with dictation support ● create a word map
English Language Learners	● create visual word wall with labels ● highlight and define important vocabulary ● ask yes/no questions ● provide sentence frames or sentence stems ● allow for use of pictures in science journal with dictation support ● create a word map
Students At-Risk of Failure	● Allow verbalization before writing ● Use audio materials when necessary ● Read tests aloud ● Restate, reword, clarify directions ● Re-teach concepts using small groups ● Provide educational “breaks” as necessary ● Chunking content into “digestible bites” ● Shorten assignments to focus on mastery concept ● Assignment, Project, and Assessment Modification Based on Individual Student Needs
Gifted and Talented	● Student Choice Boards ● Ask students higher level questions ●Provide opportunities for open-ended, self-directed activities

	●Give students opportunities to mentor other students ●Offer students opportunities to present their understanding of a topic in different ways
Students with 504 Plans	● Allow verbalization before writing ● Use audio materials when necessary ● Read tests aloud ● Restate, reword, clarify directions ● Re-teach concepts using small groups ● Provide educational “breaks” as necessary ● Chunking content into “digestible bites” ● Shorten assignments to focus on mastery concept ● Use mnemonic devices

Assessments	
Formative	● Lesson quick checks (Exit tickets and notebook checks) ● Teacher Observation
Summative	● Oral place presentation ● End of section quizzes ● Vocab quizzes
Benchmark	● Project-based learning project
Alternative	● Performance Tasks ● Projects

Pacing Guide	
Unit Title	**Number of days**
Where can science and technology be seen in our world and how do organisms interact within ecosystems?	31 days
How do the systems of the human body interact and change?	24 days
How is Earth formed and similar or different to other planets in our Solar System?	33 days
What are forces and energy?	21 days

Unit Learning Goals
Students will be able to use science to describe and understand the interactions and basics of life on Earth.

Core Instructional Materials	Supplemental Materials
● Textbook ● Online benchmark assessment resource	● Topic-focused webquests ● Two Distance learning tours

Daily Targets	NJSLS Performance Expectations	Instructional Activities
● Day 1-6: Understand and evaluate what constitutes useful scientific evidence.	3-5-ETS1-2	● Sorting activity to separate facts and opinions when researching scientific evidence
● Day 7-9: Understand how technology affects daily life.	3-5-ETS1-2	● Research and build a prosthetic arm using STEM materials.
● Day 10-18: Understand and analyze in what ways organisms interact within ecosystems.	4-LS1-1	● Research the classification of an animal and create a Slide show about it.
● Day 19-24: Understand how animals and plants are classified.	4-LS1-1	● Research the classification of various animals through the use of dichotomous keys.
● Day 25-31: Understand how adaptations help plants and animals.	4-LS1-1	● Research an animal's adaptations and create a poster/essay about the research.*Species on the Edge Contest*

Inclusive concepts
Our vision is to leverage current events in science to foster a classroom environment where students develop a strong sense of character,

inclusivity, and cultural competence. By engaging with contemporary scientific issues, students will enhance their understanding of the world and their role in it, building empathy, respect, and responsibility.

Unit Learning Goals
Students will be able to identify and understand how the human body systems work and interact at multiple levels.

Core Instructional Materials	Supplemental Materials
● Textbook ● Online benchmark assessment resource ● Mystery Science lessons ● Notebook	● Topic-focused webquests ● Hands-on manipulatives ● Video ● Mystery Science videos

Daily Targets	NJSLS Performance Expectations	Instructional Activities
● Day 1-6: Understand how to analyze how organisms change as they go through the life cycle.	5-PS3-1	● Create vertebrate/invertebrate presentations.
● Day 7-12: Evaluate the structure of a cell and understand the function of a cell to a living organism.	5-PS3-1	● Create a 3D Model of a Plant cell using various craft materials.
● Day 13-24: Understand the human body systems and how they interact.	4-LS1-2	● Research and complete an interactive notebook with hands-on activities to better understand the human body systems and interactions between them. ● Lab--dissection of an owl pellet and subsequent modeling of re-assembling the bones.

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Unit Learning Goals
Unit 3: Students will be able to understand how to describe, compare/contrast Earth to other planets.

Core Instructional Materials	Supplemental Materials
● Textbook ● Online benchmark assessment resource ● Mystery Science lessons ● Notebook	● Topic-focused webquests ● Hands-on manipulatives ● Video ● Mystery Science videos

Daily Targets	NJSLS Performance Expectations	Instructional Activities
● Day 1-6: Understand how minerals are found in rocks and soil.	5-LS2-1	● Mineral ID activity using dichotomous keys.
● Day 7-12: Analyze and understand what kinds of processes change Earth's surface.	5-LS2-1	● Research weather patterns in our town and compare them to places around the World.
● Day 13-21: Evaluate and understand the layers of Earth beneath our feet.	5-ESS2-2	● Create a visual display of the layer of the Earth's surface.
● Day 22-30: Evaluate and understand ways humans interact with the Earth.	5-ESS2-1 5-ESS3-1	●Research, draw and write a story about an endangered or threatened animal. (Species on the Edge Contest-part 2) ● Research "Green" sources of energy and debate which would work best for our local environment.

● Day 31-33: Understand comparisons of Earth to other planets in the Solar System.	5-ESS1-1 5-ESS1-2	● Students will review about the different planets of the Solar System through resources such as BrainPop, Mystery Science and NASA.

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Unit Learning Goals
Unit 4: Students will be able to describe how energy and forces work.

Core Instructional Materials	Supplemental Materials
● Textbook ● Online benchmark assessment resource ● Mystery Science lessons ● Notebook	● Topic-focused webquests ● Hands-on manipulatives ● Video ● Mystery Science videos

Daily Targets	NJSLS Performance Expectations	Instructional Activities
● Day 1-6: Understand the properties and uses of matter.	5-PS3-1.5.1	● Exploration LAB - Mystery Science
● Day 7-12: Evaluate and understand how forces cause objects to move.	5-PS3-1.5.1	● Test out how forces act on a rollercoaster by designing one on a computer program.

● Day 13-18: Understand how Newton's Laws of Motion relate to each other.	5-PS2-1	● Model Newton's Laws using toy cars, ramps and different ramp surfaces.
● Day 19-21: Analyze and understand how work can be made easier.	3-5-ETS1-2	● Create a STEM project to create a machine that makes an activity easier to complete.

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