Eagleswood Township School District Curriculum
Kindergarten

Standard Alignment September 2016
NJDOE Adoption Date September 2016
Revised 2020
ETESD BOE Approved Jan. 2020

Pacing Guide

Unit	Anticipated Timeframe
Unit 1: Engineering and Technology	18 Day
Unit 2: Forces and Motion	35 Days
Unit 3: Plants and Animals	35 Days
Unit 4: Sun Warms Earth	35 Days
Unit 5: Weather	35Days
Unit 6: Earth's Resource	18 Days

Core Materials:
Studies Weekly Science
Houghton Mifflin Harcourt Science Dimensions Textbook

	Correlation Key	
Holocaust	Amistad	Financial Literacy

Career Readiness, Life Literacies, and Key Skills Practices	
Act as a responsible and contributing community members and employee.	Students understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.
Consider the environmental, social and economic impacts of decisions.	Students understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization.
Demonstrate creativity and innovation.	Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

Utilize critical thinking to make sense of problems and persevere in solving them.	Students readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.
Model integrity, ethical leadership and effective management.	Students consistently act in ways that align personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the directions and actions of a team or organization, and they apply insights into human behavior to change others' action, attitudes and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morals and organizational culture.
Plan education and career paths aligned to personal goals.	Students take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

Use technology to enhance productivity, increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Work productively in teams while using cultural/global competence.	Students positively contribute to every team, whether formal or informal. They apply an awareness of cultural differences to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.

Career Readiness, Life Literacies, and Key Skills Core Ideas

Unit 1 will incorporate the following core ideas:

- There are ways to keep the things we value safely at home and other places.
- Different types of jobs require different knowledge and skills.
- Brainstorming can create new, innovative ideas
- Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem.
- Digital artifacts can be owned by individuals or organizations.
- Digital tools and media resources provide access to vast stores of information that can be searched.
- Digital tools can be used to display data in various ways.
- Digital tools have a purpose.
- Collaboration can simplify the work an individual has to do and sometimes produce a better product

Standard 8.1 Computer Science Core Ideas

Unit 1 will include incorporate the following core ideas.

- Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.
- Describing a problem is the first step toward finding a solution when computing systems do not work as expected.
- Individuals collect, use, and display data about individuals and the world around them.
- Data can be used to make predictions about the wor

Standard 8.2 Design Thinking Core Ideas

Unit 1 will incorporate the following core ideas.

- Engineering design is a creative process for meeting human needs or wants that can result in multiple solutions.
- Limitations (constraints) must be considered when engineering designs.
- Human needs and desires determine which new tools are developed.
- Technology has changed the way people live and work.
- Various tools can improve daily tasks and quality of life.
- The use of technology developed for the human designed world can affect the environment, including land, water, air, plants, and animals.
- Technologies that use natural sources can have negative effects on the environment, its quality, and inhabitants.
- Reusing and recycling materials can save money while preserving natural resources and avoiding damage to the environment.
- The availability of technology for essential tasks varies in different parts of the world.

Unit 1: Science / Kindergarten Engineering and Technology	Duration: 15-20 Days (September)
Standards:	**K-2-ETS-1-1: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.**

	K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

Unit Summary: Students will be exposed to an introduction of engineering and science, as well as the practices of engineering. This unit has two lessons attached to it and should be completed in about 15-20 Days. They will be able to define a simple problem, ask questions, make a model, compare and test design solutions, and use sketches and model to communicate a solution to a problem.

Essential Understanding	Essential Questions
Students will understand that… ● Engineers use observations and ask questions to identify solutions and problems ● During a design process engineers use observations and analyze situations to solve a problem	● What does an engineer do? ● How can we use a design process

Evidence of Student Learning	
Performance Tasks: *Activities to provide evidence for student learning of content and cognitive skills.*	**Other Assessments**

● Design a coin sorter	**Formative Assessments**
	    ● Teacher Observations
	    ● Interactive Notebook
	    ● Performance Assessments
	    ● Exit Slips
	    ● Response Cards
	    ● Graphic Organizers
	
	Summative Assessments
	    ● Tests
	    ● Quizzes
	    ● Summary
	    ● Labs
	    ● Hands-On Activities
	
	Benchmark Assessment
	
	    ● Beginning of the Year Benchmark
	    ● Mid-Year Benchmark
	    ● End of the Year Benchmark
	
	Alternative Assessments
	    ● Teacher Observations
	    ● Group Work/Class Work

Vocabulary
Problem/Solution/Engineer/Technology/Design Process/Model

Knowledge and Skills	
Content	**Skills**
Students will know… ● What an engineer does ● How they can use a design process	*Students will be able to...* ● Ask questions based on observations to find more information about the natural and/or designed world(s). ● Define a simple problem that can be solved through the development of a new or improved object or tool. ● Develop a simple model based on evidence to represent a proposed object or tool. ● Analyze data from tests of an object or tool to determine if it works as intended.
Instructional Plan	
Suggested Activities	**Resources**
- Engineering Blocks - Unorganized Box (Problem and Solution) - What Shape is the Strongest? (Design Process) - Create a tool to reach something under a couch - Build an Airplane	- www.brainpopjr.com - www.newsela.com (leveled texts) - https://www.teachengineering.org/ - www.readworks.org (leveled texts)

Literature	
- **Rosie Revere, Engineer Written by Andrea Beaty & illustrated by David Roberts**(Career) - ***Ada Twist, Scientist*** by Andrea Beaty - ***Dreaming Up: A Celebration of Building*** by Christy Hale - ***Look What Brown Can Do!*** by T. Marie Harris - **Baby Loves Aerospace Engineering!** by Ruth Spiro	
Websites	
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Modifications	

Special Education Students / 504 (*These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan*) reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge.

English Language learners: *use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.*

Students at Risk of Failure: *Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.*

Gifted Students: *provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level*

questions, or complimentary assignment.
*For additional modifications and accommodations, see below

English Language Learners

- Pre Teach vocabulary using visuals and gestures
- Chunk texts
- Graphic organizers
- Labeled pictures related to concept

Gifted and Talented

- Higher level questioning
- Students design questions
- Higher level texts
- Choice of activity to extend learning
- Expose to sophisticated vocabulary

Basic Skills/Economically Disadvantaged/Students at Risk

- Provide small group instructions
- Pre-teach concepts
- Build background knowledge
- Daily Log

Special Education

- Follow all IEP modifications
- Provide student with specific graphic organizers to help them note take about the different levels of government
- Provide opportunity to draw solution strategies
- Provide students with notes from the lesson and discussions
- Labeled pictures related to concepts

504
- Follow 504 Plan
- Provide a structured learning environment
- Make separate "space" for different types of tasks
- Possible adapting of non-academic times such as lunch, recess, and physical education
- Change student seating
- Utilize a study carrel
- Alter location or personal or classroom supplies for easier access or to minimize distraction
- Provide sensory breaks
- Provide a picture schedule
- Vary the method of lesson presentation using multi-sensory techniques

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Career Readiness, Life Literacies, and Key Skills Core Ideas
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● The availability of technology for essential tasks varies in different parts of the world.	

Unit 2 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Planning and Carrying Out Investigations Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. With guidance, plan and conduct an investigation in collaboration with peers. (K-PS2-1) Analyzing and Interpreting Data Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations. Analyze data from tests of an object or tool to determine if it works as intended. (K-PS2-2) --- Connections to Nature of Science Scientific Investigations Use a Variety of Methods Scientists use different ways to study the world. (K-PS2-1)	PS2.A: Forces and Motion Pushes and pulls can have different strengths and directions. (KPS2-1),(K-PS2-2) Pushing or pulling on an object can change the speed or direction of its motion and can start or stop it. (K-PS2-1),(K-PS2-2) PS2.B: Types of Interactions When objects touch or collide, they push on one another and can change motion. (K-PS2-1) PS3.C: Relationship Between Energy and Forces A bigger push or pull makes things speed up or slow down more quickly. (secondary to K-PS2-1) ETS1.A: Defining Engineering Problems A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable	Cause and Effect Simple tests can be designed to gather evidence to support or refute student ideas about causes. (K-PS2- 1),(K-PS2-2)

	solutions. (secondary to KPS2-2)	

Unit 2: Science/Kindergarten Forces and Motion	Duration: 30-40 Days (October-November)
Standards:	K-PS2-1: Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. K-PS2-2: Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.

Unit Summary: Students will be exposed to an introduction of forces and motion. This unit has two lessons attached to it and should be completed in about 30-40 Days. They will be able to plan and conduct an investigation, gather evidence, analyze data, and explore different forces.

NJ Student Learning Standards
Interdisciplinary Skills

RI.K.1 - With prompting and support, ask and answer questions about key details in a text.

SL.K.3 - Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

K.MD.A.1 - Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

K.MD.A.2 - Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference.

Career Readiness, Life Literacies, and Key Skills

9.4.2.TL.2: Create a document using a word processing application.

9.4.2.TL.3: Enter information into a spreadsheet and sort the information.

9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content.

9.4.2.TL.5: Describe the difference between real and virtual experiences.

9.4.2.TL.6: Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).

9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.)

Computer Science and Design Thinking

8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.

8.2.2.ED.1: Communicate the function of a product or device.

8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.

Essential Understandings	Essential Questions
Students will understand that… ● Scientists plan and conduct investigations to determine how changing the speed or direction of an object can affect its motion ● Scientists collect and analyze data to determine if a design solution works as planned to change an object's speed or direction with a push or a pull	● What is motion? ● How can we change the way things move?

Evidence of Student Learning	
Performance Tasks: *Activities to provide evidence for student learning of content and cognitive skills.*	**Other Assessments**
● A Game of Motion	**Formative Assessments** ● Teacher Observations ● Interactive Notebook ● Performance Assessments ● Exit Slips ● Response Cards ● Graphic Organizers **Summative Assessments** ● Tests ● Quizzes ● Summary ● Labs ● Hands-On Activities **Benchmark Assessment** ● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark

	● **Alternative Assessments** ● Teacher Observations ● Participation Rubric ● Teacher Observations ● Group Work/Class Work
Vocabulary **Motion/Speed/Direction/Force**	
Knowledge and Skills	
Content	**Skills**
Students will know… ● What motion is ● How they can change the way things move	*Students will be able to …* ● Plan and conduct an investigation about the speed of objects ● Gather evidence to support or refute ideas about what causes motion ● Analyze data from test to determine if a tool works as intended ● Explore pushes and pulls of different strengths and their effect on objects
Instructional Plan	
Suggested Activities	**Resources**
- Use the playground equipment to test out "pushes" and "pulls" and record test results on worksheet. - Use a push and pull	- www.brainpopjr.com - www.newsela.com (leveled texts) - https://www.teachengineering.org/ - www.readworks.org (leveled texts)

picture sort.

- Have toy cars come from opposite directions and crash into each other to view how the objects push on each other and collide and change directions.

- Make a ramp to cause toy cars to go faster.

- Create a marble track to cause the marble to change its direction, speed, and push another marble

Literature

Swift Walker: A Space Adventure *by Verlyn Tarlton*

Websites

- www.brainpopjr.com
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Modifications

Special Education Students / 504 (*These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan*) reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge.

English Language learners: *use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.*

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Gifted Students: *provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.*

Suggested Options for Differentiation

English Language Learners

- Preview lessons
- Graphic organizers
- Pre-teach key vocabulary
- Labeled pictures
- Using tactile objects to relate to key ideas
- Build background knowledge
- Use visuals

Gifted and Talented

- Higher level questioning
- Students design questions
- Differentiated Assignments
- Choice board to extend learning

Basic Skills/Economically Disadvantaged/Students at Risk

● Highlight key words ● Summarize as you go ● Preview lessons ● Graphic organizers
Special Education ● Provide differentiated instruction as needed ● Follow all IEP modifications ● Provide students with a study guide before a test or quiz to help them prepare ● Pre-teach and model strategies to learn and practice new vocabulary words pertaining to the unit ● Model and reinforce organizational systems
504 ● Set time expectations for assignments ● Provide clues such as clock faces indicating beginning and ending times ● Teach study/organizational skills ● Reinforce self-monitoring and self-recording of behaviors ● Utilize a study carrel ● Alter location or personal or classroom supplies for easier access or to minimize distraction ● Provide sensory breaks

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Career Readiness, Life Literacies, and Key Skills Core Ideas
Unit 3 will incorporate the following core ideas ● There are ways to keep the things we value safely at home and other places. ● Different types of jobs require different knowledge and skills. ● Brainstorming can create new, innovative ideas ● Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem. ● Digital artifacts can be owned by individuals or organizations. ● Digital tools and media resources provide access to vast stores of information that can be searched. ● Digital tools can be used to display data in various ways. ● Digital tools have a purpose. ● Collaboration can simplify the work an individual has to do and sometimes produce a better product
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Unit 3 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Analyzing and Interpreting Data Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations. Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (K-LS1-1) --Connections to Nature of Science Scientific Knowledge is Based on Empirical Evidence Scientists look for patterns and order when making observations about the world. (K-LS1-1)	LS1.C: Organization for Matter and Energy Flow in Organisms All animals need food in order to live and grow. They obtain their food from plants or from other animals.	Patterns Patterns in the natural and human designed world can be observed and used as evidence. (K-LS1-1)

Unit 3: Science/Kindergarten Plants and Animals	Duration: 30-40 Days (December-January)

Standards:

K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive

K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs

K-ESS3-1: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live

K-ESS3-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment

Unit Summary: Students will be exposed to an introduction of plants and animals. This unit has four lessons attached to it and should be completed in about 30-40 Days. They will be able to use observations to describe patterns, analyze data, use a model, use patterns, and construct an argument supported by evidence.

NJ Student Learning Standards
<div align="center">Interdisciplinary Skills</div>

W.K.1 - Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book.

W.K.2 - Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.

W.K.7 - Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them).

SL.K.5 - Add drawings or other visual displays to descriptions as desired to provide additional detail.

K.MD.A.2 - Directly compare two objects with a measurable attribute in common, to see which object has "more of"/" less of" the attribute, and describe the difference.
Career Readiness, Life Literacies, and Key Skills
9.4.2.TL.2: Create a document using a word processing application. 9.4.2.TL.3: Enter information into a spreadsheet and sort the information. 9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content. 9.4.2.TL.5: Describe the difference between real and virtual experiences. 9.4.2.TL.6: Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.). 9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.
Computer Science and Design Thinking
8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim. 8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences. 8.2.2.ED.1: Communicate the function of a product or device. 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.

Essential Understandings	Essential Questions

Students will understand that… ● Scientists use observations as evidence to explain what plants need to live and grow ● Scientists use observations as evidence to explain what animals need to live, grow, and thrive ● Scientists use models to explain where plants and animals live and that they are part of a system with parts that work together in the natural world ● Scientists use evidence to explain how plants and animals can change where they live to get what they need to live and grow	● What do plants need? ● What do animals need? ● Where do plants and animals live? ● How do plants and animals change their environment?

Evidence of Student Learning

Performance Tasks: *Activities to provide evidence for student learning of content and cognitive skills.* ● Animal Changes	**Other Assessments** **Formative Assessments** ● Teacher Observations ● Interactive Notebook ● Performance Assessments ● Exit Slips ● Response Cards ● Graphic Organizers **Summative Assessments** ● Tests ● Quizzes ● Summary ● Labs

	● Hands-On Activities **Benchmark Assessment** ● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark **Alternative Assessments** ● Teacher Observations ● Group Work/Class Work

Vocabulary

Living things/nonliving things/shelter/desert/forest/pond/ocean/environment

Knowledge and Skills

Content	Skills
Students will know… ● What plants need ● What animals need ● Where plants and animals live ● How plants and animals change their environment	*Students will be able to …* ● Use observations to describe patterns of what plants and animals need to survive ● Analyze data by collecting, recording, and sharing observations ● Use a model to show the relationship between the needs of different plants or animals and the places they live

	● Use patterns as evidence to support claims ● Construct an argument supported by evidence for how plants and animals change the environment to survive

Instructional Plan	

Suggested Activities	Resources
- Use a baggie to put lima beans in on top of a wet paper towel and seal. Place on a window to view bean growth. - Model a sunflower with all of its parts and use arrows to show movement of water and sunlight into and through the plant. - Compare two plants; one exposed sunlight and one not exposed to sunlight - Water one plant every day and another plant every other day (desert vs forest) - Plan a park - design a park where both plants and animals can thrive. Include a budget activity.	- www.brainpopjr.com - www.newsela.com (leveled texts) - https://www.teachengineering.org/ - www.readworks.org (leveled texts)

Literature
How a Seed Grows (Let's-Read-and-Find-Out Science) *by Helen J. Jordan*

Websites
- www.brainpopjr.com - www.newsela.com (leveled texts)

- https://www.teachengineering.org/
- www.readworks.org (leveled texts)

Modifications

Special Education Students / 504 (*These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan*) reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge.

English Language learners: *use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.*

Students at Risk of Failure: *Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.*

Gifted Students: *provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.*

Suggested Options for Differentiation

English Language Learners

- Use cooperative learning
- Preview and explain new concepts and vocabulary
- Demonstrations
- Partner with a strong English speaking partner
- Extended time
- Chunk texts
- Highlight key words

Gifted and Talented

- Create an enhanced set of introductory activities (e.g. advance organizers, concept maps, concept puzzles)
- Provide options, alternatives and choices to differentiate and broaden the curriculum
- Organize and offer flexible small group learning activities
- Differentiate Assignments

Basic Skills/Economically Disadvantaged/Students at Risk

- Pre-teach vocabulary using visuals and gestures
- Chunk texts
- Highlight key words

<div align="center">Modifications/Accommodations</div>

Special Education

- Provide differentiated instruction as needed
- Follow all IEP modifications
- Read directions, tests/quizzes, and classwork aloud in a small group, rewording as needed
- Allow students to verbalize before beginning an assignment
- Help students to plan projects and goals with the teacher before beginning the assignment
- Review concepts and important vocabulary from previous lessons before teaching new information
- Check for student understanding often with formal, informal, verbal, and nonverbal measures

504
- Set time expectations for assignments
- Provide clues such as clock faces indicating beginning and ending times
- Teach study/organizational skills
- Reinforce self-monitoring and self-recording of behaviors
- Utilize a study carrel
- Alter location or personal or classroom supplies for easier access or to minimize distraction
- Provide sensory breaks

	Correlation Key	
Holocaust	Amistad	Financial Literacy

Career Readiness, Life Literacies, and Key Skills Practices	
Act as a responsible and contributing community members and employee.	Students understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.
Consider the environmental, social and economic impacts of decisions.	Students understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization.
Demonstrate creativity and innovation.	Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

Utilize critical thinking to make sense of problems and persevere in solving them.	Students readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.
Model integrity, ethical leadership and effective management.	Students consistently act in ways that align personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the directions and actions of a team or organization, and they apply insights into human behavior to change others' action, attitudes and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morals and organizational culture.
Plan education and career paths aligned to personal goals.	Students take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.

Use technology to enhance productivity, increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Work productively in teams while using cultural/global competence.	Students positively contribute to every team, whether formal or informal. They apply an awareness of cultural differences to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.

Career Readiness, Life Literacies, and Key Skills Core Ideas
Unit 4 will include incorporate the following core ideas ● There are ways to keep the things we value safely at home and other places. ● Different types of jobs require different knowledge and skills. ● Brainstorming can create new, innovative ideas ● Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem. ● Digital artifacts can be owned by individuals or organizations. ● Digital tools and media resources provide access to vast stores of information that can be searched. ● Digital tools can be used to display data in various ways. ● Digital tools have a purpose. ● Collaboration can simplify the work an individual has to do and sometimes produce a better product
Standard 8.1 Computer Science Core Ideas

Unit 4 will include incorporate the following core ideas.
- Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.   - Describing a problem is the first step toward finding a solution when computing systems do not work as expected.   - Individuals collect, use, and display data about individuals and the world around them.   - Data can be used to make predictions about the wor
Standard 8.2 Design Thinking Core Ideas
Unit 4 will incorporate the following core ideas.   - Engineering design is a creative process for meeting human needs or wants that can result in multiple solutions.   - Limitations (constraints) must be considered when engineering designs.   - Human needs and desires determine which new tools are developed.   - Technology has changed the way people live and work.   - Various tools can improve daily tasks and quality of life.   - The use of technology developed for the human designed world can affect the environment, including land, water, air, plants, and animals. Technologies that use natural sources can have negative effects on the environment, its quality, and inhabitants.   - Reusing and recycling materials can save money while preserving natural resources and avoiding damage to the environment.   - The availability of technology for essential tasks varies in different parts of the world.

Unit 4 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Planning and Carrying Out Investigations Planning and carrying out investigations to answer questions or test solutions to problems in K–2 builds on prior experiences	PS3.B: Conservation of Energy and Energy Transfer Sunlight warms Earth's surface. (K-PS3-1),(K-PS3-2)	Cause and Effect Events have causes that generate observable patterns. (K-PS3-1),(K-PS3-2)

and progresses to simple investigations, based on fair tests, which provide data to support explanations or design solutions. Make observations (firsthand or from media) to collect data that can be used to make comparisons. (K-PS3-1) Constructing Explanations and Designing Solutions Constructing explanations and designing solutions in K–2 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomena and designing solutions. Use tools and materials provided to design and build a device that solves a specific problem or a solution to a specific problem. (K-PS3-2) --- 　　Connections to Nature of Science Scientific Investigations Use a Variety of Methods Scientists use different ways to study the world. (K-PS3-1)		

Unit 4: Science/Kindergarten Sun Warms Earth	Duration: 30-40 Days (February-March)
Unit Summary: Students will be exposed to an introduction of how the sun warms the earth. This unit has two lessons attached to it and should be completed in about 30-40 Days. They will be able to make observations, make observations to collect data, use tools and materials to build a device, and describe the causes that make observable patterns.	
Standards:	

K-PS3-1- Make observations to determine the effect of sunlight on Earth's surface

K-PS3-2- Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area.

K-ESS2-1- Use and share observations of local weather conditions to describe patterns over time

K-ESS3-2- Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather

NJ Student Learning Standards
Interdisciplinary Skills

RI.K.1 - With prompting and support, ask and answer questions about key details in a text.

SL.K.3 - Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

K.MD.A.1 - Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

K.MD.B.3 - Classify objects into given categories; count the number of objects in each category and sort the categories by count.

Career Readiness, Life Literacies, and Key Skills

9.4.2.TL.2: Create a document using a word processing application.

9.4.2.TL.3: Enter information into a spreadsheet and sort the information.

9.4.2.TL.5: Describe the difference between real and virtual experiences.

9.4.2.TL.6: Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).

9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.

Computer Science and Design Thinking

8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.

8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

8.2.2.ED.1: Communicate the function of a product or device.

8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.

Essential Understandings	Essential Questions
Students will understand that… ● The sun warms the earth's surface ● They can protect themselves from the sun	● How does the sun warm the earth? ● How can I protect myself from the sun?

Evidence of Student Learning	

| Performance Tasks: *Activities to provide evidence for student learning of content and cognitive skills.*

 ● Sun heating land and water | Other Assessments

 Formative Assessments
 ● Teacher Observations
 ● Interactive Notebook
 ● Performance Assessments
 ● Exit Slips
 ● Response Cards
 ● Graphic Organizers

 Summative Assessments
 ● Tests |

	● Quizzes ● Summary ● Labs ● Hands-On Activities **Benchmark Assessment** ● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark **Alternative Assessments** ● Teacher Observations ● Group Work/Class Work

Vocabulary

light/heat/shade

Knowledge and Skills

Content	Skills
Students will know…. ● How the sun heats the earth ● How they can protect themselves from the sun	*Students will be able to …* ● Make observations to construct an evidence-based account of the effect of sunlight on Earth's surface ● Make observations to collect data that can be used to make comparisons ● Use tools and material provided to design and build a device that protects people from the sun

	● Describe the causes that make observable patterns associated with the effect of sunlight on Earth's surface

Instructional Plan

Suggested Activities	Resources
- Practice counting in order to read a thermometer. - Have students walk outside and describe how they feel on a sunny day v. a cloudy day. - Check the weather report daily. Discuss the different types of weather experiences and track the changes. - Show patterns of weather by creating basic bar graphs. - Watch TV weather reports and discuss the job of a meteorologist. - Role play the job of a meteorologist within a dramatic play center. - Draw picture/models depicting different types of weather. - Pebbles on a plate (one in the shade and one in the sun) to compare how the sun heats the earth's surface - Design and build a shelter to protect earth's surface from the sun	- www.brainpopjr.com - www.newsela.com (leveled texts) - https://www.teachengineering.org/ - www.readworks.org (leveled texts)

Literature

The Meteorologist In Me by Brittany Ship

Websites

- www.brainpopjr.com
- www.newsela.com (leveled texts)
- https://www.teachengineering.org/
- www.readworks.org (leveled texts)

Modifications

Special Education Students / 504 (*These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan***)** reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge.

English Language learners: *use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.*

Students at Risk of Failure: *Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.*

Gifted Students: *provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.*

Suggested Options for Differentiation

English Language Learners

- Plan activities using role play and drama
- Have students present information with illustrations, comic strips, or other visual representations
- Use visuals
- Teacher check-ins
- Provide Word Wall

Gifted and Talented

- Organize and offer flexible small group learning activities
- Teach cognitive and methodological skills
- Use centers
- Organize integrated problem-solving simulations
- Propose interest-based extension activities

Basic Skills/Economically Disadvantaged/Students at Risk

- Graphic organizers
- Highlight key words
- Sentence starters
- Build background knowledge

Special Education

- Follow all IEP modifications
- Provide visual aids to support concepts being taught
- Use anchor charts in the classroom to support the concepts being taught and to use to review these ideas in future lessons
- Use graphic organizers to help students organize important information from a lesson
- Reword Directions

504
- Set time expectations for assignments
- Provide clues such as clock faces indicating beginning and ending times
- Teach study/organizational skills
- Reinforce self-monitoring and self-recording of behaviors
- Utilize a study carrel
- Alter location or personal or classroom supplies for easier access or to minimize distraction
- Provide sensory breaks

	Correlation Key	
Holocaust	Amistad	Financial Literacy

Career Readiness, Life Literacies, and Key Skills Practices

Act as a responsible and contributing community members and employee.	Students understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.
Consider the environmental, social and economic impacts of decisions.	Students understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization.
Demonstrate creativity and innovation.	Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.
Utilize critical thinking to make sense of problems and persevere in solving them.	Students readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

Model integrity, ethical leadership and effective management.	Students consistently act in ways that align personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the directions and actions of a team or organization, and they apply insights into human behavior to change others' action, attitudes and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morals and organizational culture.
Plan education and career paths aligned to personal goals.	Students take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.
Use technology to enhance productivity, increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

Work productively in teams while using cultural/global competence.	Students positively contribute to every team, whether formal or informal. They apply an awareness of cultural differences to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.

Career Readiness, Life Literacies, and Key Skills Core Ideas

Unit 5 will incorporate the following core ideas

- There are ways to keep the things we value safely at home and other places.
- Different types of jobs require different knowledge and skills.
- Brainstorming can create new, innovative ideas
- Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem.
- Digital artifacts can be owned by individuals or organizations.
- Digital tools and media resources provide access to vast stores of information that can be searched.
- Digital tools can be used to display data in various ways.
- Digital tools have a purpose.
- Collaboration can simplify the work an individual has to do and sometimes produce a better product

Standard 8.1 Computer Science Core Ideas

This Unit will include incorporate the following core ideas.

- Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.
- Describing a problem is the first step toward finding a solution when computing systems do not work as expected.
- Individuals collect, use, and display data about individuals and the world around them.
- Data can be used to make predictions about the wor

Standard 8.2 Design Thinking Core Ideas

Unit 5 will incorporate the following core ideas.

- Engineering design is a creative process for meeting human needs or wants that can result in multiple solutions.
- Limitations (constraints) must be considered when engineering designs.
- Human needs and desires determine which new tools are developed.
- Technology has changed the way people live and work.
- Various tools can improve daily tasks and quality of life.
- The use of technology developed for the human designed world can affect the environment, including land, water, air, plants, and animals.
- Technologies that use natural sources can have negative effects on the environment, its quality, and inhabitants.
- Reusing and recycling materials can save money while preserving natural resources and avoiding damage to the environment.
- The availability of technology for essential tasks varies in different parts of the world.

Unit 5 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Analyzing and Interpreting Data Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations. Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (K-ESS2-1) Engaging in Argument from Evidence Engaging in argument from evidence in K–2 builds on prior experiences and progresses to comparing ideas and representations about the natural and designed world(s). Construct an argument with evidence to support a	ESS2.D: Weather and Climate Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. People measure these conditions to describe and record the weather and to notice patterns over time. (K-ESS2-1) ESS2.E: Biogeology Plants and animals can change their environment. (KESS2-2) ESS3.C: Human Impacts on Earth Systems Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts	Patterns Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (K-ESS2-1) Systems and System Models Systems in the natural and designed world have parts that work together. (K-ESS2-2)

| claim. (K-ESS2-2)

Connections to Nature of Science

Science Knowledge is Based on Empirical Evidence Scientists look for patterns and order when making observations about the world. (K-ESS2-1) | on the land, water, air, and other living things. (secondary to K-ESS2-2) | |

Unit 5: Science/Kindergarten **Weather**	**Duration:** 30-40 Days (April-May)
Unit Summary: Students will be exposed to an introduction of weather. This unit has four lessons attached to it and should be completed in about 30-40 Days. They will be able to use observations to describe things, explore observable patterns, use patterns as evidence, ask questions, and explore technologies.	
Standards: **K-PS3-2- Use tools and materials to design and build a structure that will reduce the warming effect of sunlight on an area** **K-ESS2-1- Use and share observations of local weather conditions to describe patterns over time** **K-ESS3-2- Ask questions to obtain information about the purpose of weather forecasting to prepare for, and respond to, severe weather**	
NJ Student Learning Standards **Interdisciplinary Skills**	
RI.K.1 - With prompting and support, ask and answer questions about key details in a text. SL.K.3 - Ask and answer questions in order to seek help, get information, or clarify something that is not understood.	

K.MD.A.1 - Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object. K.MD.B.3 - Classify objects into given categories; count the number of objects in each category and sort the categories by count

<table>
<tr><td colspan="2" align="center">Career Readiness, Life Literacies, and Key Skills</td></tr>
<tr><td colspan="2">9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content.

9.4.2.TL.5: Describe the difference between real and virtual experiences.

9.4.2.TL.6: Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).

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<tr><td align="center">Essential Understandings</td><td align="center">Essential Questions</td></tr>
<tr><td><i>Students will understand that…</i>

Weather patterns are observable
Weather can be measured
There are multiple kinds of severe weather
Forecasts can help us</td><td>How can we observe weather patterns?
How can we measure weather?
What are kinds of severe weather?
How can forecasts help us?</td></tr>
<tr><td colspan="2" align="center">Evidence of Student Learning</td></tr>
<tr><td>Performance Tasks: <i>Activities to provide evidence for student learning of content and cognitive skills.</i></td><td align="center">Other Assessments

Formative Assessments</td></tr>
</table>

● Investigate local weather forecasts	● Teacher Observations ● Interactive Notebook ● Performance Assessments ● Exit Slips ● Response Cards ● Graphic Organizers **Summative Assessments** ● Tests ● Quizzes ● Summary ● Labs ● Hands-On Activities **Benchmark Assessment** ● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark **Alternative Assessments** ● Teacher Observations ● Participation Rubric ● Teacher Observations ● Group Work/Class Work

Vocabulary

Weather pattern/season/temperature/severe weather/weather forecast

Knowledge and Skills	
Content	**Skills**
Students will know…. ● How they can observe weather patterns ● How they can measure weather ● What kinds of severe weather there are ● How forecasts can help them	*Students will be able to …* ● Use observations to describe different kinds of weather ● Explore observable weather patterns ● Use patterns as evidence to describe weather conditions ● Ask questions to find out about different kinds of weather ● Explore technologies meteorologists use to predict weather and severe weather conditions
Instructional Plan	
Suggested Activities	**Resources**
● Practice counting in order to read a thermometer. ● Use demonstration thermometer to learn that the red color symbolizes heat. ● Check the weather report daily. Discuss the different types of weather experiences and track the changes. ● Using a human like model, dress it appropriately for the specific weather. ● Watch TV weather reports and discuss the job of a meteorologist. ● Role play the job of a meteorologist within a dramatic play center. ● Draw picture/models depicting different types of weather. ● Act out different weather situations. ● Make an emergency preparedness kit (ie: Hurricane) and practice what to do during an emergency.	- www.brainpopjr.com - www.newsela.com (leveled texts) - https://www.teachengineering.org/ - www.readworks.org (leveled texts)

Literature
- **May I Come In?** by Marsha Diane Arnold - **. A Year With The Wind** by Hanna Konola

Websites
- www.brainpopjr.com - www.newsela.com (leveled texts) - https://www.teachengineering.org/ - www.readworks.org (leveled texts)

Modifications
Special Education Students / 504 (*These are just suggested ideas to modify instruction. All modifications and accommodations should be specific to each student's IEP or 504 plan*) reduce/revise assignments & assignments as per IEP; provide individual and small group assistance; notes, and study guides; provide background knowledge. **English Language learners:** *use consistent, simplified language; provide bilingual when appropriate; provide cooperative learning opportunities, use modeling, visual aids, and manipulatives.* **Students at Risk of Failure:** *Provide less distracting seating if possible, frequent check-in by teacher, study guides, notes, etc.* **Gifted Students:** *provide additional enrichment activity involving demonstrating knowledge, deeper research to answer a higher level questions, or complimentary assignment.*

Suggested Options for Differentiation
English Language Learners ● Plan activities using role play and drama ● Use visuals

- Teacher check-ins
- Limit Number of Questions
- Speak Slowly

Gifted and Talented

- Use centers
- Organize integrated problem-solving simulations
- Propose interest-based extension activities
- Differentiate Assignments
- Differentiate Texts
- Complete Different Homework than peers

Basic Skills/Economically Disadvantaged/Students at Risk

- Graphic organizers
- Highlight key words
- Sentence starters
- Build background knowledge
- Increased parent communication

Special Education

- Follow all IEP modifications
- Provide visual aids to support concepts being taught
- Provide manipulatives or the opportunity to draw solution strategies
- Allow students to verbalize before beginning an assignment
- Pre-Teach concepts
- Extended Time

504
- Set time expectations for assignments
- Provide clues such as clock faces indicating beginning and ending times
- Teach study/organizational skills
- Reinforce self-monitoring and self-recording of behaviors

● Utilize a study carrel ● Alter location or personal or classroom supplies for easier access or to minimize distraction ● Provide sensory breaks		

	Correlation Key	
Holocaust	Amistad	Financial Literacy

Career Readiness, Life Literacies, and Key Skills Practices	
Act as a responsible and contributing community members and employee.	Students understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.
Consider the environmental, social and economic impacts of decisions.	Students understand the interrelated nature of their actions and regularly make decisions that positively impact and/or mitigate negative impact on other people, organization, and the environment. They are aware of and utilize new technologies, understandings, procedures, materials, and regulations affecting the nature of their work as it relates to the impact on the social condition, the environment and the profitability of the organization.

Demonstrate creativity and innovation.	Students regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.
Utilize critical thinking to make sense of problems and persevere in solving them.	Students readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.
Model integrity, ethical leadership and effective management.	Students consistently act in ways that align personal and community-held ideals and principles while employing strategies to positively influence others in the workplace. They have a clear understanding of integrity and act on this understanding in every decision. They use a variety of means to positively impact the directions and actions of a team or organization, and they apply insights into human behavior to change others' action, attitudes and/or beliefs. They recognize the near-term and long-term effects that management's actions and attitudes can have on productivity, morals and organizational culture.

Plan education and career paths aligned to personal goals.	Students take personal ownership of their own education and career goals, and they regularly act on a plan to attain these goals. They understand their own career interests, preferences, goals, and requirements. They have perspective regarding the pathways available to them and the time, effort, experience and other requirements to pursue each, including a path of entrepreneurship. They recognize the value of each step in the education and experiential process, and they recognize that nearly all career paths require ongoing education and experience. They seek counselors, mentors, and other experts to assist in the planning and execution of career and personal goals.
Use technology to enhance productivity, increase collaboration and communicate effectively.	Students find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.
Work productively in teams while using cultural/global competence.	Students positively contribute to every team, whether formal or informal. They apply an awareness of cultural differences to avoid barriers to productive and positive interaction. They find ways to increase the engagement and contribution of all team members. They plan and facilitate effective team meetings.

Career Readiness, Life Literacies, and Key Skills Core Ideas
Unit 6 will incorporate the following core ideas ● There are ways to keep the things we value safely at home and other places.

- Different types of jobs require different knowledge and skills.
- Brainstorming can create new, innovative ideas
- Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem.
- Digital artifacts can be owned by individuals or organizations.
- Digital tools and media resources provide access to vast stores of information that can be searched.
- Digital tools can be used to display data in various ways.
- Digital tools have a purpose.
- Collaboration can simplify the work an individual has to do and sometimes produce a better product

Standard 8.1 Computer Science Core Ideas

Unit 6 will include incorporate the following core ideas.

- Individuals use computing devices to perform a variety of tasks accurately and quickly. Computing devices interpret and follow the instructions they are given literally.
- Describing a problem is the first step toward finding a solution when computing systems do not work as expected.
- Individuals collect, use, and display data about individuals and the world around them.
- Data can be used to make predictions about the wor

Standard 8.2 Design Thinking Core Ideas

Unit 6 will incorporate the following core ideas.

- Engineering design is a creative process for meeting human needs or wants that can result in multiple solutions.
- Limitations (constraints) must be considered when engineering designs.
- Human needs and desires determine which new tools are developed.
- Technology has changed the way people live and work.
- Various tools can improve daily tasks and quality of life.
- The use of technology developed for the human designed world can affect the environment, including land, water, air, plants, and animals.
- Technologies that use natural sources can have negative effects on the environment, its quality, and inhabitants.
- Reusing and recycling materials can save money while preserving natural resources and avoiding damage to the environment.

● The availability of technology for essential tasks varies in different parts of the world.

Unit 6 Disciplinary Core Ideas Chart

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Asking Questions and Defining Problems Asking questions and defining problems in grades K–2 builds on prior experiences and progresses to simple descriptive questions that can be tested. Ask questions based on observations to find more information about the designed world. (K-ESS3-2) Developing and Using Models Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, storyboard) that represent concrete events or design solutions. Use a model to represent relationships in the natural world. (K-ESS3-1) Obtaining, Evaluating, and Communicating Information Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts	ESS3.A: Natural Resources Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1) ESS3.B: Natural Hazards Some kinds of severe weather are more likely than others in a given region. Weather scientists forecast severe weather so that the communities can prepare for and respond to these events. (K-ESS3-2) ESS3.C: Human Impacts on Earth Systems Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (K-ESS3- 3) ETS1.A: Defining and Delimiting an Engineering Problem Asking questions, making observations,	Cause and Effect Events have causes that generate observable patterns. (K-ESS3-2),(KESS3-3) Systems and System Models Systems in the natural and designed world have parts that work together. (K-ESS3-1) --- Connections to Engineering, Technology, and Applications of Science Interdependence of Science, Engineering, and Technology People encounter questions about the natural world every day. (K-ESS3-2) Influence of Engineering, Technology, and Science on Society and the Natural World People depend on various technologies in their lives; human life would be very different without technology. (K-ESS3- 2)

to communicate new information. Read grade-appropriate texts and/or use media to obtain scientific information to describe patterns in the natural world. (K-ESS3-2) Communicate solutions with others in oral and/or written forms using models and/or drawings that provide detail about scientific ideas. (K-ESS3-3)	and gathering information are helpful in thinking about problems. (secondary to K-ESS3-2) ETS1.B: Developing Possible Solutions Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (secondary to K-ESS3-3)	

Unit 6: Science/Kindergarten **Earth's Resources**	**Duration:** 15-20 Days (June)

Unit Summary: Students will be exposed to an introduction of earth's resources. This unit has two lessons attached to it and should be completed in 15-20 Days. They will be able to use evidence to explain things, describe things, design and communicate, and identify different natural resources.

Standards:
K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive

K-ESS2-2: Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs

K-ESS3-1: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live

K-ESS3-3: Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment

NJ Student Learning Standards
Interdisciplinary Skills
W.K.1 - Use a combination of drawing, dictating, and writing to compose opinion pieces in which they tell a reader the topic or the name of the book they are writing about and state an opinion or preference about the topic or book. W.K.2 - Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. W.K.7 - Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). SL.K.5 - Add drawings or other visual displays to descriptions as desired to provide additional detail. K.MD.A.2 -Directly compare two objects with a measurable attribute in common, to see which object has "more of"/" less of" the attribute, and describe the difference
Computer Science and Design Thinking
8.1.5.DA.1: Collect, organize, and display data in order to highlight relationships or support a claim.. 8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process. 8.2.2.ITH.1: Identify products that are designed to meet human wants or needs. 8.2.2.ITH.2: Explain the purpose of a product and its value.
Career Readiness, Life Literacies, and Key Skills
9.1.2.RM.1: Describe how valuable items might be damaged or lost and ways to protect them 9.1.2.CAP.1: Make a list of different types of jobs and describe the skills associated with each job. 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive)

9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10)

9.4.2.TL.3: Enter information into a spreadsheet and sort the information.

9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content.

9.4.2.TL.6: Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).

9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

Essential Understandings	Essential Questions
Students will understand that… ● Natural resources are anything people can use from nature ● We can save natural resources in many ways	● What are natural resources? ● How can we save natural resources?

Evidence of Student Learning	
Performance Tasks: *Activities to provide evidence for student learning of content and cognitive skills.* ● Reuse a milk carton	**Other Assessments** **Formative Assessments** ● Teacher Observations ● Interactive Notebook ● Performance Assessments ● Exit Slips ● Response Cards ● Graphic Organizers

	Summative Assessments ● Tests ● Quizzes ● Summary ● Labs ● Hands-On Activities **Benchmark Assessment** ● Beginning of the Year Benchmark ● Mid-Year Benchmark ● End of the Year Benchmark **Alternative Assessments** ● Teacher Observations ● Group Work/Class Work
Vocabulary **Natural resource/reduce/reuse/recycle**	
Knowledge and Skills	
Content	**Skills**
Students will know…. ● What natural resources are ● How they can save natural resources	*Students will be able to …* ● Identify air, water, rocks, and soil as natural resources ● Use evidence to explain that living things need water, air, and resources from the land

	● Describe how natural resources work as part of a system in the natural world ● Explain ways people use natural resources and the impact they have on the environment ● Design and communicate solutions to overcome negative impacts on the environment

Instructional Plan

Suggested Activities	Resources
● Collect various clean recycle items and place in a large bag. Gather one clean trash can and 3 clean recycle bins and label bins *paper, plastic* and *glass*. Show students the recycle posters that illustrate the number system within a triangle shape to indicate whether to recycle or not. ● Have students pull a recycle item from the bag, look at the number in the triangle and decide it's a recycle item. If so, which recycle bin (glass, plastic or paper) should the item go in and if not, place in a trash can. ● Show videos of what happens to recycle items at the recycling facility and how recycled items become new items.	- www.brainpopjr.com - www.newsela.com (leveled texts) - https://www.teachengineering.org/ - www.readworks.org (leveled texts)

Literature

Galimoto by Karen Lynn Williams (multicultural)
Magic Trash: A Story of Tyree Guyton and His Art by J.H. Shapiro

Websites

- www.brainpopjr.com

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Suggested Options for Differentiation

English Language Learners

- Use visuals
- Teacher check-ins
- Limit number of questions
- Modified Assignments
- Provide Word Wall

Gifted and Talented

- Organize and offer flexible small group learning activities
- Use centers

- Propose interest-based extension activities
- Create alternate projects or assignments that challenge thinking
- Differentiate test questions

Basic Skills/Economically Disadvantaged/Students at Risk

- Graphic organizers
- Highlight key words
- Frequent breaks
- Sentence starters
- Build background knowledge

Special Education/

- Follow all IEP modifications/504 plan
- Provide visual aids to support concepts being taught
- Allow students to verbalize before beginning an assignment
- Use anchor charts in the classroom to support the concepts being taught and to use to review these ideas in future lessons
- Extended time
- Pre-Teach concepts

504
- Set time expectations for assignments
- Provide clues such as clock faces indicating beginning and ending times
- Teach study/organizational skills
- Reinforce self-monitoring and self-recording of behaviors
- Utilize a study carrel
- Alter location or personal or classroom supplies for easier access or to minimize distraction
- Provide sensory breaks
- Frequent checks for understanding