

Wilson Area School District Planned Course Guide

Title of planned course: Elevate Science

Subject Area: Science

Grade Level: First Grade

Course Description: Provide all students with science experiences appropriate to their cognitive development that will serve as a solid foundation for more advanced ideas in the future. Through guided inquiry experiences, content exploration, and research, students will gain an understanding of introductory topics related to Physical Science, Life Sciences, and Earth Sciences.

Time/Credit for this Course: One Academic Year

Curriculum Writing Committee: Allison Yarko and Sarah McKitish
Updated STEEL Standards Summer 20204 Kayla Lohrman and Megan Vogel

Curriculum Map

Science topics are aligned with related topics within HMH Into Reading scope and sequence

August: N/A

September: Topic 1: Sound - 3 weeks (HMH Module 1)

October: Topic 6: Parents and Offspring - last two weeks of October (HMH Module 3)

November: Topic 6 Parents and Offspring - 1 week (HMH Module 3 cont.)

December: Topic 2: Light - 3 weeks (HMH Module 5)

January: Topic 3: Sky and Earth - last week of January - 1 week (HMH Module 7)

February: Topic 3: Sky and Earth - 2 weeks (HMH Module 7 cont.)

March: Topic 5: Living Things - second week of March - 3 weeks (HMH Module 9)

April: Topic 5: Living Things - first week of April - 1 week (HMH Module 9)

April: Topic 4: Weather and Seasons - last week of April - 1 week (HMH Module 11)

May: Topic 4: Weather and Seasons - 1 week (HMH Module 11 cont.)

May/June: Extension/Review as needed

Wilson Area School District Planned Course Materials

Course Title: Science

Textbook: Pearson Elevate Science Grade 1

Teacher Resources: Teacher Manual Grade 1, Pearson Elevate Science Website

Curriculum Scope & Sequence

Planned Course: First Grade Science

Unit: Topic 1: Sound

Time frame: 3 weeks

K-12 STEEL Standards:

Grade 1: 3.2 Physical Science

- Wave Properties
 - 3.2.1.A- Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.
- Information Technologies and Instrumentation
 - 3.2.1.D- Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.

Grades K-2: Technology and Engineering

- Applying, Maintaining, and Assessing Technological Products and Systems, Impacts of Technology, Influence of Society on Technological Development
 - 3.5.K-2.B- Describe qualities of everyday products.
 - 3.5.K-2.C- Explain that technology helps with everyday tasks.
 - 3.5.K-2.K- Safely use tools to complete tasks.
 - 3.5.K-2.L- Explore how technologies are developed to meet individual needs and societal needs and wants.
- Design and Design Thinking in Technology and Engineering Education
 - 3.5.K-2.N- Analyze how things work.
 - 3.5.K-2.Q- apply skills necessary for making in design.
- Integration of Knowledge, Technologies, and Practices
 - 3.5.K-2.X- Develop a plan in order to complete a task.
- Nature and Characteristics of Technology and Engineering, Core Concepts of Technology and Engineering, History of Technology
 - 3.5.K-2.CC- Discuss roles of scientists, engineers, technologists, and others who work with technology.
 - 3.5.K-2.DD- Collaborate effectively as a member of a team.

Essential content/objectives: At the end of the unit, students will be able to:

- Explain what happens when objects vibrate
 - Lesson 1: SWBAT describe sound
 - Lesson 2: SWBAT vibrate objects to make sounds. SWBAT show that sounds can make objects vibrate.
 - Lesson 3: SWBAT identify how people use sounds.

Core Activities: Students will complete/participate in the following:

- Week 1: Complete all readings and activities for Lesson 1
 - Day 1: Topic Opener, uConnect Lab: How can a ruler make a sound?, Literacy Connection - Draw Conclusions, Game (Website) (p. 4-5)
 - Day 2: Introduce vocab, uInvestigate Lab: How does size affect sound? (p. 6-7)
 - Day 3: Read Lesson 1, Interactivity- Digital activity Sound of Sounds (p. 8-9)
 - Day 4: Quest Kick Off, Video, Quest Check-In: Sounds of the World pul (p. 2-3. 10)

- Day 5: Extreme Science: Echolocation, Whole Group Check In (use digital Lesson 1 Quiz) (p. 11)
- Week 2: Complete all readings and activities for Lesson 2
 - Day 1: Introduce Vocab, Video, uInvestigate Lab: How can you see sound? (p. 12-13)
 - Day 2: Read Lesson 2, Interactivity - Digital activity Length and Sound (p. 14-15)
 - Day 3: Finish Reading Lesson 2, Quest Check In Lab: How can instruments talk? - Whole Group, Step 1: Make a Plan (p. 16-19)
 - Day 4: Finish Quest Check In Lab - Whole Group (p. 18-19)
 - Day 5: Whole Group Check In (use Digital Lesson 2 Quiz)
- Week 3: Complete all readings and activities for Lesson 3
 - Day 1: Introduce vocab, Video, uInvestigate Lab: What does that sound say? - Instead of a message, have students spell their name using Morse Code. (p. 20-21)
 - Day 2: Read Lesson 3 (p. 22-24)
 - Day 3: Interactivity - Digital Activity Sending Sounds to Communicate (p. 24)
 - Day 4: Quest Check-In Lab: How can an instrument send a secret? (p. 25)
 - Day 5: Topic 1 Assessment, Review Quest Findings: Sending Sound Messages (p. 28, 30-33)

Extensions:

- See Website for additional Enrichment Activities & Digital copies of Leveled Phenomena Readers, STEM Engineering Readers
- uEngineer It!: Alert! Alert! (p. 26-27)
- Interactivity - Digital activity Notify the Residents (website)
- Career Connection: Orchestra Conductor (p. 29)
- uDemonstrate Lab: Which Instrument can you use to make sound? (p.34-35)

Remediation:

- Follow ELD Support in Teacher Manual
- Follow Differentiated Instruction Plan in Teacher Manual
- See Website for additional Remediation Activities & Digital copies of Leveled Phenomena Readers

Instructional Methods:

- Inquiry
- Hands On Active Learning
- Multi Sensory Methods
- Student to Student Interaction
- Discourse and Reflective Thinking
- Reading and Research
- Digital Literacy Skills through use of Website

Materials & Resources:

- Student Consumable Text
- Teacher Manuals
- Pearson Elevate Website
- Lab Kits
- Classroom technology and student chromebooks

Assessments:

- Week 1: Whole Group Check In - Lesson 1 Digital Quiz
- Week 2: Whole Group Check In - Lesson 2: Digital Quiz
- Week 3: Topic 1 Assessment

Curriculum Scope & Sequence

Planned Course: First Grade Science

Unit: Topic 6 - Parents and Offspring

Time frame: 3 weeks

K-12 STEEL Standards:

Grade 1: 3.1 Life Science

- Structure and Function
 - 3.1.1.A-Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.
- Growth and Development
 - 3.1.1.B- Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.
- Inheritance of Traits
 - 3.1.1.C- Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

Grades K-2: Technology and Engineering

- Applying, Maintaining, and Assessing Technological Products and Systems, Impacts of Technology, Influence of Society on Technological Development
 - 3.5.K-2.H- Explain the needs and wants of individuals and societies.
 - 3.5.K-2.K- Safely use tools to complete tasks.
- Design and Design Thinking in Technology and Engineering Education
 - 3.5.K-2.N- Analyze how things work.
 - 3.5.K-2.P-Discuss that all designs have different characteristics that can be described.
 - 3.5.K-2.S- Apply design concepts, principles, and processes through play and exploration.
- Integration of Knowledge, Technologies, and Practices
 - 3.5.K-2.X- Develop a plan in order to complete a task.
- Nature and Characteristics of Technology and Engineering, Core Concepts of Technology and Engineering, History of Technology
 - 3.5.K-2.DD- Collaborate effectively as a member of a team.

Essential content/objectives: At the end of the unit, students will be able to:

- Explain how parents and their young are alike and different.
 - Lesson 1: SWBAT observe and describe the life cycles of some plants and animals.
 - Lesson 2: SWBAT observe and describe that young plants and animals are like, but not exactly like their parents.
 - Lesson 3: SWBAT identify what animals need. SWBAT explain how the behaviors of parents and their young help the young survive.

Core Activities: Students will complete/participate in the following:

- Week 1: Complete all readings and activities for Lesson 1
 - Day 1: Topic Opener, uConnect Lab: Which mouse is longer?, Literacy Connection - Main Idea and Details, Game (Website) (p. 184-185, 188-189)
 - Day 2: Introduce vocab, uInvestigate Lab: How do plants grow and change? (p. 190-191)

- Day 3: Read Lesson 1, Interactivity- Digital activity Compare Life Cycles of Animals (p. 192-193)
- Day 4: Quest Kick Off, Video, Quest Check-In: How are the life cycles alike and different? (p. 186-187. 194-195)
- Day 5: Whole Group Check In (use digital Lesson 1 Quiz), Finish up Quest Check In if needed.
- Week 2: Complete all readings and activities for Lesson 2
 - Day 1: Introduce Vocab, uInvestigate Lab: What do young plants look like? (p. 196-197)
 - Day 2: Read Lesson 2, Video (p. 198-199)
 - Day 3: Continue Reading Lesson 2, Interactivity - Digital activity Alike and Different Living Things (p. 200-201)
 - Day 4: Finish Reading Lesson 2, Quest Check In - Alike and Different (Whole Group) (p. 202-203)
 - Day 5: Whole Group Check In (use Digital Lesson 2 Quiz)
- Week 3: Complete all readings and activities for Lesson 3
 - Day 1: Introduce vocab, uInvestigate Lab: How do nests protect eggs? (p. 206-207)
 - Day 2: Read Lesson 3, Video (p. 208-210)
 - Day 3: Finish Reading Lesson 3, Interactivity - Digital Activity Animal Behaviors (p. 212-213)
 - Day 4: Quest Check-In: Parents Help Young Learn. Math Connection, Quest Findings, (p. 214-216)
 - Day 5: Topic 1 Assessment, Interactivity - Digital Activity Quest Findings: Find the Parents (p. 216, 218-221)

Extensions:

- See Website for additional Enrichment Activities & Digital copies of Leveled Phenomena Readers, STEM Engineering Readers
- uEngineer It!: Code the Way (p. 204-205)
- Interactivity - Digital activity Code to Find the Treasure (website)
- Career Connection: Nature Scientist (p. 217)
- uDemonstrate Lab: How do living things change as they grow? (p.222-223)

Remediation:

- Follow ELD Support in Teacher Manual
- Follow Differentiated Instruction Plan in Teacher Manual
- See Website for additional Remediation Activities & Digital copies of Leveled Phenomena Readers

Instructional Methods:

- Inquiry
- Hands On Active Learning
- Multi Sensory Methods
- Student to Student Interaction
- Discourse and Reflective Thinking
- Reading and Research
- Digital Literacy Skills through use of Website

Materials & Resources:

- Student Consumable Text
- Teacher Manuals
- Pearson Elevate Website
- Lab Kits
- Classroom technology and student chromebooks

Assessments:

- Week 1: Whole Group Check In - Lesson 1 Digital Quiz
- Week 2: Whole Group Check In - Lesson 2: Digital Quiz
- Week 3: Topic 6 Assessment

Curriculum Scope & Sequence

Planned Course: First Grade Science

Unit: Topic 2 - Light

Time frame: 3 weeks

K-12 STEEL Standards:

Grade 1: 3.2 Physical Science

- Electromagnetic Radiation
 - 3.2.1.B- Make observations to construct an evidence-based account that objects can be seen only when illuminated.
 - 3.2.1.C- Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.
- Information Technologies and Instrumentation
 - 3.2.1.D- Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.

Grades K-2: Technology and Engineering

- Applying, Maintaining, and Assessing Technological Products and Systems, Impacts of Technology, Influence of Society on Technological Development
 - 3.5.K-2.A- Identify and use everyday symbols.
 - 3.5.K-2.H- Explain the needs and wants of individuals and societies.
 - 3.5.K-2.K- Safely use tools to complete tasks.
- Design and Design Thinking in Technology and Engineering Education
 - 3.5.K-2.M- Demonstrate essential skills of the engineering design process.
 - 3.5.K-2.N- Analyze how things work. .
 - 3.5.K-2.S- Apply design concepts, principles, and processes through play and exploration.
- Integration of Knowledge, Technologies, and Practices
 - 3.5.K-2.X- Develop a plan in order to complete a task.
 - 3.5.K-2.Y- Discuss how the way people live and work has changed throughout history because of technology.
- Nature and Characteristics of Technology and Engineering, Core Concepts of Technology and Engineering, History of Technology
 - 3.5.K-2.CC- Discuss the roles of scientists, engineers, technologists, and others who work with technology.
 - 3.5.K-2.DD- Collaborate effectively as a member of a team.

Essential content/objectives: At the end of the unit, students will be able to:

- Explain how to use light
 - Lesson 1: SWBAT observe and explain that light is needed to see objects. SWBAT identify objects that give off light.
 - Lesson 2: SWBAT describe how light interacts with different materials.
 - Lesson 3: SWBAT explain how people use light. SWBAT identify how people use light to communicate with others who are far away.

Core Activities: Students will complete/participate in the following:

- Week 1: Complete all readings and activities for Lesson 1
 - Day 1: Topic Opener, uConnect Lab: What do you need to see objects?, Literacy Connection - Cause & Effect, Game (Website) (p. 36-37, 40-41)

- Day 2: Introduce vocab, Video, uInvestigate Lab: What happens when an object blocks light? (p. 42-43)
- Day 3: Read Lesson 1, Interactivity- Digital activity Light Helps Us See (p. 44-46)
- Day 4: Quest Kick Off, Video, Quest Check-In: Give off Light (p. 38-39, 47)
- Day 5: Whole Group Check In (use digital Lesson 1 Quiz)
- Week 2: Complete all readings and activities for Lesson 2
 - Day 1: Introduce Vocab, Video, uInvestigate Lab: How do materials affect light? - Complete Whole Group (p. 48-49)
 - Day 2: Read Lesson 2 (p. 50-53)
 - Day 3: Interactivity - Digital activity Shine Light on Matter
 - Day 4: Quest Check In - Materials for a Light Signal, Solve it with Science: How can you see what is behind you? (p. 54-55)
 - Day 5: Whole Group Check In (use Digital Lesson 2 Quiz)
- Week 3: Complete all readings and activities for Lesson 3
 - Day 1: Introduce vocab, Video, uInvestigate Lab: How can you use light to see? (p. 58-59)
 - Day 2: Read Lesson 3, Interactivity - Digital Activity Light Keeps Us Safe (p. 60-63)
 - Day 3: Quest Check-In Lab: How can you send secret messages (p. 64-65)
 - Day 4: Finish Quest Check-In Lab: How can you send secret messages, Quest Findings: Help Send a Message (p. 64-66)
 - Day 5: Topic 2 Assessment, Interactivity - Digital Activity Quest Findings (p. 67)

Extensions:

- See Website for additional Enrichment Activities & Digital copies of Leveled Phenomena Readers, STEM Engineering Readers
- uEngineer It!: Windshield Safety (p. 56-57)
- Interactivity - Digital activity Engineering Activity (website)
- Career Connection: Game Designer (p. 67)
- uDemonstrate Lab: How can I change a transparent material? (p.72-73)

Remediation:

- Follow ELD Support in Teacher Manual
- Follow Differentiated Instruction Plan in Teacher Manual
- See Website for additional Remediation Activities & Digital copies of Leveled Phenomena Readers

Instructional Methods:

- Inquiry
- Hands On Active Learning
- Multi Sensory Methods
- Student to Student Interaction
- Discourse and Reflective Thinking
- Reading and Research
- Digital Literacy Skills through use of Website

Materials & Resources:

- Student Consumable Text
- Teacher Manuals
- Pearson Elevate Website
- Lab Kits
- Classroom technology and student chromebooks

Assessments:

- Week 1: Whole Group Check In - Lesson 1 Digital Quiz
- Week 2: Whole Group Check In - Lesson 2: Digital Quiz
- Week 3: Topic 2 Assessment

Curriculum Scope & Sequence

Planned Course: First Grade Science

Unit: Topic 3 - Sky and Earth

Time frame: 3 weeks

K-12 STEEL Standards:

Grade 1: 3.3-Earth and Space Science:

- The Universe and Its Stars
 - 3.3.1.A- Use observations of the sun, moon, and stars to describe patterns that can be predicted.
- Earth and the Solar System
 - 3.3.1.B- Make observations at different times of the year to relate the amount of daylight to the time of year.

Grades K-2: Technology and Engineering

- Applying, Maintaining, and Assessing Technological Products and Systems, Impacts of Technology, Influence of Society on Technological Development
 - 3.5.K-2.B- Describe qualities of everyday products.
 - 3.5.K-2.K- Safely use tools to complete tasks.
- Design and Design Thinking in Technology and Engineering Education
 - 3.5.K-2.N- Analyze how things work. .
 - 3.5.K-2.S- Apply design concepts, principles, and processes through play and exploration.
- Integration of Knowledge, Technologies, and Practices
 - 3.3.K-2.V- Explain that materials are selected for use because they possess desirable properties and characteristics
 - 3.5.K-2.X- Develop a plan in order to complete a task.
- Nature and Characteristics of Technology and Engineering, Core Concepts of Technology and Engineering, History of Technology
 - 3.5.K-2.Z- Illustrate how systems have parts or components that work together to accomplish a goal.
 - 3.5.K-2.DD- Collaborate effectively as a member of a team.

Essential content/objectives: At the end of the unit, students will be able to:

- Explain what objects are in the sky and how they move.
 - Lesson 1: SWBAT describe the sun, the moon, and the stars.
 - Lesson 2: SWBAT tell what causes day and night and moon phases.
 - Lesson 3: SWBAT explain why days have different lengths during different seasons.

Core Activities: Students will complete/participate in the following:

- Week 1: Complete all readings and activities for Lesson 1
 - Day 1: Topic Opener, uConnect Lab: Which way will it point?, Literacy Connection - Picture Clues, Game (Website) (p. 74-75, 78-79)
 - Day 2: Introduce vocab, Video, ulInvestigate Lab: Why is it hard to see stars during the day? - Whole Group (p. 80-81)
 - Day 3: Read Lesson 1, Interactivity- Digital activity Day Sky (p. 82-84)
 - Day 4: Quest Kick Off, Video, Quest Check-In: Stars in the Sky (p. 76-77, 85)
 - Day 5: Whole Group Check In (use digital Lesson 1 Quiz)

- Week 2: Complete all readings and activities for Lesson 2
 - Day 1: Introduce Vocab, Video, ulnvestigate Lab: How can you observe sun patterns? - Introduce at morning meeting and pause through the day to look out the window and discuss, can be spread through the week if needed (p. 86-87)
 - Day 2: Read Lesson 2 (p. 88-90)
 - Day 3: Finish Reading Lesson 2, Interactivity - Digital activity Patterns in the Night Sky (p. 91)
 - Day 4: Quest Check In - Moon Patterns, STEM Math Connection: Use a Calendar (p. 92-93)
 - Day 5: Whole Group Check In (use Digital Lesson 2 Quiz)
- Week 3: Complete all readings and activities for Lesson 3
 - Day 1: Introduce vocab, Video (p. 94)
 - Day 2: ulnvestigate Lab: How does the sun cause seasons? - Whole Group (p. 95)
 - Day 3: Interactivity - Digital activity Seasons Around the World, Read Lesson 3 (p. 96-97)
 - Day 4: Quest Check-In Lab: How can you model the motions of Earth? (p. 98-99)
 - Day 5: Topic 3 Assessment, Quest Findings: Sky Watchers, Interactivity - Digital Activity Quest Findings: Sky Watchers (p. 102)

Extensions:

- See Website for additional Enrichment Activities & Digital copies of Leveled Phenomena Readers, STEM Engineering Readers
- uEngineer It!: Design a Code (p. 100-101)
- uEngineer It! Follow Up Video (website)
- Career Connection: Space Scientist (p. 103)
- uDemonstrate Lab: How do shadows change? (p.108-109)

Remediation:

- Follow ELD Support in Teacher Manual
- Follow Differentiated Instruction Plan in Teacher Manual
- See Website for additional Remediation Activities & Digital copies of Leveled Phenomena Readers

Instructional Methods:

- Inquiry
- Hands On Active Learning
- Multi Sensory Methods
- Student to Student Interaction
- Discourse and Reflective Thinking
- Reading and Research
- Digital Literacy Skills through use of Website

Materials & Resources:

- Student Consumable Text
- Teacher Manuals
- Pearson Elevate Website
- Lab Kits
- Classroom technology and student chromebooks

Assessments:

- Week 1: Whole Group Check In - Lesson 1 Digital Quiz
- Week 2: Whole Group Check In - Lesson 2: Digital Quiz
- Week 3: Topic 3 Assessment

Curriculum Scope & Sequence

Planned Course: First Grade Science

Unit: Topic 5 - Living Things

Time frame: 4 weeks

K-12 STEEL Standards:

Grade 1: 3.1: Life Science

- Structure and Function
 - 3.3.1.A- Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.

Grades K-2: Technology and Engineering

- Applying, Maintaining, and Assessing Technological Products and Systems, Impacts of Technology, Influence of Society on Technological Development
 - 3.5.K-2.B- Describe qualities of everyday products.
 - 3.5.K-2.E- Illustrate helpful and harmful effects of technology.
 - 3.5.K-2.F- Investigate the use of technologies in the home and community.
 - 3.5.K-2.K- Safely use tools to complete tasks.
- Design and Design Thinking in Technology and Engineering Education
 - 3.5.K-2.N- Analyze how things work.
 - 3.5.K-2.O- Illustrate that there are different solutions to a design and that none are perfect.
 - 3.5.K-2.S- Apply design concepts, principles, and processes through play and exploration.
- Integration of Knowledge, Technologies, and Practices
 - 3.3.K-2.V- Explain that materials are selected for use because they possess desirable properties and characteristics
 - 3.5.K-2.X- Develop a plan in order to complete a task.
- Nature and Characteristics of Technology and Engineering, Core Concepts of Technology and Engineering, History of Technology
 - 3.5.K-2.Z- Illustrate how systems have parts or components that work together to accomplish a goal.
 - 3.5.K-2.DD- Collaborate effectively as a member of a team.

Essential content/objectives: At the end of the unit, students will be able to:

- Identify how parts of plants and animals help them survive.
 - Lesson 1: SWBAT identify the major parts of plants. SWBAT explain how plant parts help plants.
 - Lesson 2: SWBAT identify the major parts of animals. SWBAT explain how animal parts help animals.
 - Lesson 3: SWBAT demonstrate how people can learn from plant and animal parts.
 - Lesson 4: SWBAT use the senses to observe living things in their environments.

Core Activities: Students will complete/participate in the following:

- Week 1: Complete all readings and activities for Lesson 1
 - Day 1: Topic Opener, uConnect Lab: How can you make a model of a plant?, Literacy Connection - Compare and Contrast, Game (Website) (p. 142-143, 146-147)

- Day 2: Introduce vocab, uInvestigate Lab: What do the parts of a plant look like? (p. 148-149)
- Day 3: Read Lesson 1, Video: Plant Parts (p. 148, 150-152)
- Day 4: Quest Kick Off and Video: Nature Copycats, Quest Check In: Roots Help Plants Survive, Interactivity (p. 144-145, 153)
- Day 5: Whole Group Check In (use digital Lesson 1 Quiz)
- Week 2: Complete all readings and activities for Lesson 2
 - Day 1: Introduce Vocab, uInvestigate Lab: How do whiskers help a cat? (p. 154-155)
 - Day 2: Video: Animal Parts, Read Lesson 2 (p. 154, 156-158)
 - Day 3: Quest Check In: Different Shapes, Different Uses (p. 159)
 - Day 4: Interactivity: What are some parts of animals? (p. 157)
 - Day 5: Whole Group Check In (use Digital Lesson 2 Quiz)
- Week 3: Complete all readings and activities for Lesson 3
 - Day 1: Introduce Vocab, uInvestigate Lab: How can people learn from an acorn shell? (p. 162-163)
 - Day 2: Video: People Learn From Plant and Animal Parts, Read Lesson 3 (p. 162, 164-165)
 - Day 3: Quest Check In: A Sticky Invention, Interactivity: How People Mimic Living Things (p. 165-166)
 - Day 4: Math Connection: Order Objects by Length (p. 167)
 - Day 5: Whole Group Check In (use Digital Lesson 3 Quiz)
- Week 4: Complete all readings and activities for Lesson 4
 - Day 1: Introduce Vocab, uInvestigate Lab: what happens to a water plant out of water? (p. 168-169)
 - Day 2: Video: Where Plants and Animals Live, Read Lesson 4 (p. 168, 170-171)
 - Day 3: Read Lesson 4 (cont.), Interactivity: Land and Water Environments (p. 172-173)
 - Day 4: Quest Check In Lab: How do snowshoe hares stay safe?, Quest Findings: Nature Copycats (p. 174-176)
 - Day 5: Topic 5 Assessment

Extensions:

- See Website for additional Enrichment Activities & Digital copies of Leveled Phenomena Readers, STEM Engineering Readers
- uEngineer It!: Design a Tool (p. 160-161)
- Interactivity: Plant Parts and Human Objects (p. 160)
- Interactivity: Nature Copycats (p. 176)
- Career Connection: Bioengineer (p. 177)
- uDemonstrate Lab: How do the spines of cacti help them? (p. 182-183)

Remediation:

- Follow ELD Support in Teacher Manual
- Follow Differentiated Instruction Plan in Teacher Manual
- See Website for additional Remediation Activities & Digital copies of Leveled Phenomena Readers

Instructional Methods:

- Inquiry
- Hands On Active Learning
- Multi Sensory Methods
- Student to Student Interaction
- Discourse and Reflective Thinking

- Reading and Research
- Digital Literacy Skills through use of Website

Materials & Resources:

- Student Consumable Text
- Teacher Manuals
- Pearson Elevate Website
- Lab Kits
- Classroom technology and student chromebooks

Assessments:

- Week 1: Whole Group Check In - Lesson 1 Digital Quiz
- Week 2: Whole Group Check In - Lesson 2: Digital Quiz
- Week 3: Whole Group Check In - Lesson 3: Digital Quiz
- Week 4: Topic 5 Assessment

Curriculum Scope & Sequence

Planned Course: First Grade Science

Unit: Topic 4 - Weather and Seasons

Time frame: 2 weeks

K-12 STEEL Standards:

Grade 1: 3.3-Earth and Space Science:

- The Universe and Its Stars
 - 3.3.1.A- Use observations of the sun, moon, and stars to describe patterns that can be predicted.
- Earth and the Solar System
 - 3.3.1.B- Make observations at different times of the year to relate the amount of daylight to the time of year.

Grades K-2: 3.4 Environmental Literacy & Sustainability

- Sustainability and Stewardship, Environmental Sustainability
 - 3.4.K-2.C- Explain ways that places differ in their physical characteristics, their meaning, and their values and/or importance.
 - 3.4.K-2.D- Plan and carry out an investigation to address an issue in the local environment and community.

Grades K-2: Technology and Engineering

- Applying, Maintaining, and Assessing Technological Products and Systems, Impacts of Technology, Influence of Society on Technological Development
 - 3.5.K-2.B- Describe qualities of everyday products.
 - 3.5.K-2.G- Explain the tools and techniques that people use to help them do things.
 - 3.5.K-2.I- Compare simple technologies to evaluate their impacts.
 - 3.5.k-2.J- Design new technologies that could improve their daily lives.
 - 3.5.K-2.K- Safely use tools to complete tasks.
- Design and Design Thinking in Technology and Engineering Education
 - 3.5.K-2.N- Analyze how things work. .
 - 3.5.K-2.S- Apply design concepts, principles, and processes through play and exploration.
- Integration of Knowledge, Technologies, and Practices
 - 3.3.K-2.V- Explain that materials are selected for use because they possess desirable properties and characteristics
 - 3.5.K-2.X- Develop a plan in order to complete a task.
- Nature and Characteristics of Technology and Engineering, Core Concepts of Technology and Engineering, History of Technology
 - 3.5.K-2.Z- Illustrate how systems have parts or components that work together to accomplish a goal.
 - 3.5.K-2.DD- Collaborate effectively as a member of a team.

Essential content/objectives: At the end of the unit, students will be able to:

- Describe different types of weather and seasons.
 - Lesson 1: SWBAT observe and measure weather.
 - Lesson 2: SWBAT describe how weather changes from day to day. SWBAT describe seasons.

Core Activities: Students will complete/participate in the following:

- Week 1: Complete all readings and activities for Lesson 1
 - Day 1: Topic Opener, uConnect Lab: What is it like outside today?, Literacy Connection - Sequence, Game (Website) (p. 110-111, 114-115)
 - Day 2: Introduce vocab, uInvestigate Lab: Which way is the wind blowing? (p. 116-117)
 - Day 3: Video - Types of Weather, Read Lesson 1, (p. 118-121)
 - Day 4: Interactivity- Tools for Measuring the Weather, Quest Kick Off and Video, Quest Check-In: Hot and Cold (p. 112-113, 121-122)
 - Day 5: Extreme Science: Winter Storm Jonas, Whole Group Check In (use digital Lesson 1 Quiz) (p. 123)
- Week 2: Complete all readings and activities for Lesson 2
 - Day 1: Introduce Vocab, uInvestigate Lab: How can you make it rain? (p. 126-127)
 - Day 2: Read Lesson 2, Video: Weather Changes and Seasons (p. 126, 128-129)
 - Day 3: Finish Reading Lesson 2, Interactivity: The Four Seasons (p. 130-131)
 - Day 4: Quest Check In Lab: How does the season affect the amount of daylight? (p. 132-133)
 - Day 5: Topic 4 Assessment; Quest Findings: Plan a Trip! (p. 134)

Extensions:

- See Website for additional Enrichment Activities & Digital copies of Leveled Phenomena Readers, STEM Engineering Readers
- uEngineer It!: Design a Cooler! (p.124-125)
- Career Connection - Meteorologist (p. 135)
- uDemonstrate Lab: How does weather change in a week? (p. 140-141)

Remediation:

- Follow ELD Support in Teacher Manual
- Follow Differentiated Instruction Plan in Teacher Manual
- See Website for additional Remediation Activities & Digital copies of Leveled Phenomena Readers

Instructional Methods:

- Inquiry
- Hands On Active Learning
- Multi Sensory Methods
- Student to Student Interaction
- Discourse and Reflective Thinking
- Reading and Research
- Digital Literacy Skills through use of Website

Materials & Resources:

- Student Consumable Text
- Teacher Manuals
- Pearson Elevate Website
- Lab Kits
- Classroom technology and student chromebooks

Assessments:

- Week 1: Whole Group Check In - Lesson 1 Digital Quiz
- Week 2: Topic 4 Assessment