

SUGGESTED PACING

SCIENCE INQUIRY AND APPLICATION

Content Statements: During the years of PreK-4, all students must become proficient in the use of the following scientific processes, with appropriate laboratory safety techniques, to construct their knowledge and understanding in all science content areas:

- Observe and ask questions about the natural environment
- Plan and conduct simple investigations
- Employ simple equipment and tools to gather data and extend the senses
- Use appropriate mathematics with data to construct reasonable explanations
- Communicate about observations, investigations and explanations
- Review and ask questions about the observations and explanations of others

STRAND: EARTH AND SPACE SCIENCE (ESS)

Topic: Sun, Energy and Weather

This topic focuses on the sun as a source of energy and energy changes that occur to land, air and water.

Content Statements: The sun is the principal source of energy.

- Sunlight warms Earth's land, air and water.
- The amount of exposure to sunlight affects the amount of warming or cooling of air, water and land
- Quantitative measurements must be used to observe and document the warming and cooling of air, water or soil.

PRINT RESOURCES

ScienceFusion

- Unit 1, TE pages 1A-1M;1-44; TR1-3
- Unit 7, TE pages 255-290
- Unit 7, Inquiry Flip Chart pages 32-35
- Unit 7, Science and Engineering Leveled Readers
 - On-Level/Below Level - *How Can We Observe & Record Weather*
 - Above Level - *Move It!*
- Unit 8, TE pages 291A-322
- Unit 8, Inquiry Flip Chart pages 36-39
- Unit 8, Science and Engineering Leveled Readers
 - On-Level/Below Level - *How Does the Sky Seem to Change?*
 - Above Level - *A Closer Look at Telescopes*

DIGITAL RESOURCES

ScienceFusion

- Unit 1, Digital Lessons
- Unit 7, Lesson 1 Digital Lesson
- Unit 7, Lesson 2 Digital Lesson with Virtual Lab
- Unit 7, Lesson 3 Digital Lesson
- Unit 8, Lesson 1 Digital Lesson
- Unit 8, Lesson 2 Digital Lesson
- Unit 8, Lesson 3 Digital Lesson with Virtual Lab

SCIENCE AND ACADEMIC VOCABULARY

Unit 1: Inquiry Skills, Investigation, Science Tools, Senses

Unit 7: Magnify, Moon, Phases, Season, Shadow, Star, Sun, Telescope, Temperature, Weather, Weather Pattern, Wind

DIFFERENTIATION

Basic (Extra Support)

- Unit 7 Response to Intervention - TE page 255 I
- Unit 7 TE pages 259, 260, 274, 277, 280
- Unit 8 Response to Intervention - TE page 291I
- Unit 8 TE pages 294, 296, 307, 308, 311

Advanced (Enrichment)

- Unit 7 TE pages 259, 260, 274, 277, 280
- Unit 7 STEM - Inquiry Flipchart page 35, TE pages 255G, 285-286B
- Unit 8 TE pages 294, 296, 307, 308, 311
- Unit 8 STEM - Inquiry Flipchart page 39, TE pages 291G, 317-318B

English Language Learners

- Unit 7 TE pages 255J-255-K, 258, 261, 275, 278
- Unit 8 TE pages 291J-291K, 297, 306, 309

FIELD EXPERIENCE CONNECTIONS

INQUIRY SKILLS	
<ul style="list-style-type: none"> • Compare • Draw Conclusions • Experiment • Formulate or Use Models • Gather, Record, Display, and Interpret Data • Infer 	<ul style="list-style-type: none"> • Investigate • Measure • Model • Plan and Conduct a Simple Investigation • Predict
HANDS-ON INQUIRY AND APPLICATION	
<ul style="list-style-type: none"> • “High in the Sky” (Flipchart page 36, TE pages 291D, 293A) • “Hot or Cold?” (Flipchart page 32, TE pages 255D, 257A) • “How Does the Sun Seem to Move?” (Flipchart page 38, TE pages 291F, 315A-316) • “Keeping Warm” (Flipchart page 34, TE pages 255F, 273A) • “Make a Pinwheel” (Flipchart page 32, TE pages 255D, 257A) • “Moon Calendar” (Flipchart page 37, TE pages 291E, 305A) • “Star Fun” (Flipchart page 36, TE pages 291D, 293A) • “Turn Over a New Leaf” (Flipchart page 34, TE pages 255F, 273A) • “What Can We Observe About Weather?” (Flipchart page 33, TE pages 255E, 267A-269) • “What Moves?” (Flipchart page 37, TE Pages 291E, 305A) 	<p>Differentiated Inquiry</p> <ul style="list-style-type: none"> • Unit 7, TE page 270A <ul style="list-style-type: none"> ○ Observe Weather (Easy) ○ Observe Daily Rainfall (Average) ○ Graph Weekly Weather (Average) ○ Predict Weekend Weather (Challenging) • Unit 8, TE page 316A <ul style="list-style-type: none"> ○ Explore a Change in a Nonstandard Unit of Measurement (Easy) ○ Identify the Sun’s Path in the Sky (Average) ○ Explore Changes in Units of Measurement (Average) ○ Explore Shadow Lengths (Challenging)
ASSESSMENTS/PROGRESS MONITORING	ASSESSMENT GUIDE
<ul style="list-style-type: none"> • Sum it Up <ul style="list-style-type: none"> ○ Unit 7, Lesson 1 - SE page 264, TE page 264 ○ Unit 7, Lesson 3 - SE page 282, TE page 282 ○ Unit 8, Lesson 1 - SE page 300, TE page 300 ○ Unit 8, Lesson 2 - SE page 312, TE page 312 • Brain Check and Apply Concepts <ul style="list-style-type: none"> ○ Unit 7, Lesson 1 - SE pages 265-266, TE pages 265-266 ○ Unit 7, Lesson 3 - SE pages 283-284, TE pages 283-284 ○ Unit 8, Lesson 1 - SE pages 301-302, TE pages 301-302 ○ Unit 8, Lesson 2 - SE pages 313-314, TE pages 313-314 • Unit 7 Review - TE pages 287A-290 • Unit 7 Short Option Performance Assessment - TE page 289 • Unit 8 Review - TE pages 319A-322 • Unit 8 Short Option Performance Assessment - TE page 321 	<ul style="list-style-type: none"> • Lesson Quiz <ul style="list-style-type: none"> ○ Unit 7, Lesson 1 - page AG 69 ○ Unit 7, Lesson 2 - page AG 70 ○ Unit 7, Lesson 3 - page AG 71 ○ Unit 8, Lesson 1 - page AG 79 ○ Unit 8, Lesson 2 - page AG 80 ○ Unit 8, Lesson 3 - page AG 81 • Unit 7 Test and Performance Task with Long Option Rubric - pages AG 72-AG 78 • Unit 8 Test and Performance Task with Long Option Rubric - pages AG 82-AG 88
ACADEMIC CONNECTIONS TO OTHER DISCIPLINES: ELA (Journeys)	
<p>Journeys</p> <ul style="list-style-type: none"> • Writing Connection - TE page 262 • Make Connections - TE page 266A <ul style="list-style-type: none"> ○ Writing Connection - Present a Weather Report (Easy) ○ Writing Connection - Write Journal Entries (Average) • Writing Connection - TE page 271 • Writing Connection - TE page 279 • Make Connections - TE page 284A <ul style="list-style-type: none"> ○ Writing Connection - Spin a Season (Challenging) • Writing Connection - TE page 295 • Writing Connection - TE page 299 • Make Connections - TE page 302A <ul style="list-style-type: none"> ○ Writing Connection - Write a Rhyme about Day and Night (Easy) • Writing Connection - TE page 303 • Writing Connection - TE page 310 	<p>Journeys Connections:</p> <p>Lesson 13</p> <ul style="list-style-type: none"> • Whole Group - Read Aloud - The Prickly Pride of Texas (T212) • Whole Group - Anchor Text - Seasons (T222) • Whole Group - Informational Text - Four Seasons for Animals (T262) • Small Group - Vocabulary Reader - Ducks (T288) • Small Group - Struggling Reader - Winter (T294) • Small Group - On Level Readers - Fall Changes (T295) • Small Group - Advanced Reader - Seasons Around the World (T296) <p>Lesson 16</p> <ul style="list-style-type: none"> • Small Group - Advanced Reader - Living and Working in Space (T96)

ACADEMIC CONNECTIONS TO OTHER DISCIPLINES: MATH (Math Expressions)

- Make Connections - TE page 263
- Math Expressions Connections:
 - Unit 4 Lesson 3: Represent and Compare Teen Numbers MX TE page 290
 - Unit 4 Lesson 12: Use Place Value to Compare Numbers MX TE pages 348-350
 - Unit 4 Lesson 16: Practice with 2-Digit Numbers MX TE pages 374-376
 - Unit 4 Lesson 18: Focus on Mathematical Practices MX TE page 387
 - Unit 8 Lesson 6: Focus on Mathematical Practices MX TE page 697
- Make Connections - TE page 266A
- Math Connections - Collect and Compare Temperature Data (Challenging)
- Math Expressions Connections:
 - Unit 4 Lesson 3: Represent and Compare Teen Numbers MX TE page 290
 - Unit 4 Lesson 12: Use Place Value to Compare Numbers MX TE pages 348-350
 - Unit 4 Lesson 16: Practice with 2-Digit Numbers MX TE pages 374-376
 - Unit 4 Lesson 18: Focus on Mathematical Practices MX TE page 387
 - Unit 6 Lesson 1: Explore Representing Data MX TE pages 490-492
 - Unit 6 Lesson 2: Organize Categorical Data MX TE pages 496-500
 - Unit 6 Lesson 3: Use Stair Steps to Represent Data MX TE pages 504-506
 - Unit 6 Lesson 4: Data Sets with Three Categories MX TE pages 510-512
 - Unit 6 Lesson 5: Data Collecting MX TE pages 516-519
 - Unit 8 Lesson 6: Focus on Mathematical Practices MX TE page 697
- Make Connections - TE page 276
- Math Expressions Connections:
 - Unit 7 Lesson 1: Introduction to Time MX TE pages 556-560
 - Unit 7 Lesson 2: Tell and Write Time in Hours MX TE pages 562-566
 - Unit 7 Lesson 3: Time in Our Day MX TE pages 568-572
- Make Connections - TE page 284A
- Math Connection - Research Months in Each Season (Average)
- Make Connections - TE page 314A
 - Math Connection - Interpret a Lunar Calendar (Challenging)
- Math Expressions Connections:
 - Unit 7 Lesson 1: Introduction to Time MX TE pages 556-560
 - Unit 7 Lesson 3: Time in Our Day MX TE pages 568-572