

| SUGGESTED PACING | |
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| <p>SCIENCE INQUIRY AND APPLICATION</p> <p>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:</p> <ul style="list-style-type: none"> • 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 <p>STRAND: EARTH AND SPACE SCIENCE (ESS)</p> <p>Topic: Earth's Resources</p> <p>This topic focuses on Earth's resources. While resources can be living and nonliving, within this strand, the emphasis is on Earth's nonliving resources, such as water, air, rock, soil and the energy resources they represent.</p> <p>Content Statements:</p> <ul style="list-style-type: none"> • Earth's nonliving resources have specific properties. • Soil is composed of pieces of rock, organic material, water and air and has characteristics that can be measured and observed. • Rocks have unique characteristics that allow them to be sorted and classified. • Rocks form in different ways. Air and water are nonliving resources. | |
| PRINT RESOURCES | DIGITAL RESOURCES |
| <p><i>ScienceFusion</i></p> <ul style="list-style-type: none"> • Unit 1, TE pages 1A-1M; 1-52 • Unit 3, Lessons 3-4 • Unit 3, TE pages 109A-134A • Unit 3, Inquiry Flip Chart pages 20-21 | <p><i>ScienceFusion</i></p> <ul style="list-style-type: none"> • Unit 1, Digital Lessons • Unit 3, Lesson 3 Digital Lesson • Unit 3, Lesson 4 Digital Lesson |
| SCIENCE AND ACADEMIC VOCABULARY | |
| <p>Unit 1: Bar Graph, Chart, Data Table, Data, Empirical Evidence, Experiment, Graduated Cylinder, Hypothesis, Infer, Investigation, Map, Microscope, Model, Observe, Predict, Temperature, Variable</p> <p>Unit 3: Clay, Humus, Mineral, Nutrients, Rock, Sand, Silt, Soil</p> | |
| DIFFERENTIATION | FIELD EXPERIENCE CONNECTIONS |
| <p>Basic (Extra Support)</p> <ul style="list-style-type: none"> • Unit 3 Response to Intervention - TE page 89K • Unit 3 TE pages 115, 116, 122, 125, 127 <p>Advanced (Enrichment)</p> <ul style="list-style-type: none"> • Unit 3 TE pages 115, 116, 122, 125, 127 <p>English Language Learners</p> <ul style="list-style-type: none"> • Unit 3 TE pages 89L-89M, 112, 113, 124, 128, 131 | <p>Greater Cleveland Aquarium's N.E.M.O: Nurturing the Environment by Maintaining Ohio Program.</p> <p>Program details: Aquatic animal adaptation investigation. Use STEM design to build a model fish to live in a specific habitat, Predict how environmental changes may affect fish. To prepare in advance-attend two professional development sessions to receive Classroom Aquarium and a flash drive with year-long curriculum connections.</p> <p>For information contact: Ray Patacca & Erin Bauer 216-862-8803 x7703 or education@greaterclevelandaquarium.com</p> |
| INQUIRY SKILLS | |
| <ul style="list-style-type: none"> • Compare • Draw Conclusions • Formulate or Use Models • Gather, Record, Display, or Interpret Data | <ul style="list-style-type: none"> • Infer • Observe • Plan and Conduct a Simple Investigation • Predict |
| HANDS-ON INQUIRY AND APPLICATION | |
| <ul style="list-style-type: none"> • "Making Rocks" (Flipchart page 20, TE pages 89G, 109A) • "Test-A-Rock" (Flipchart page 20, TE 89G, 109A) | <ul style="list-style-type: none"> • "Forming Soil" (Flipchart page 21, TE page 89H, 121A) • "Compost It!" (Flipchart page 21, TE page 89H, 121A) |

| ASSESSMENTS/PROGRESS MONITORING | ASSESSMENT GUIDE | | |
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| <ul style="list-style-type: none"> • Sum it Up <ul style="list-style-type: none"> ○ Unit 3, Lesson 3 - SE page 118, TE page 118 ○ Unit 3, Lesson 4 - SE page 132, TE page 132 • Brain Check and Apply Concepts <ul style="list-style-type: none"> ○ Unit 3, Lesson 3 - SE pages 119-120, TE pages 119-120 ○ Unit 3, Lesson 3 - SE pages 133-134, TE pages 133-134 | <ul style="list-style-type: none"> • Lesson Quiz <ul style="list-style-type: none"> ○ Unit 3, Lesson 3 - page AG 27 ○ Unit 3, Lesson 4 - page AG 28 | | |
| ACADEMIC CONNECTIONS TO OTHER DISCIPLINES: ELA | | | |
| <p>Journeys</p> <table border="0" style="width: 100%;"> <tr> <td style="vertical-align: top; width: 50%;"> <ul style="list-style-type: none"> • Writing Connection - TE page 117 • Make Connections - TE page 120A <ul style="list-style-type: none"> ○ Language Arts Connection - Rock Collecting (Average) • Writing Connection - TE page 123 • Writing Connection - TE page 126 </td> <td style="vertical-align: top; width: 50%;"> <ul style="list-style-type: none"> • Writing Connection - TE page 129 • Make Connections - TE page 134A <ul style="list-style-type: none"> ○ Writing Connection - Picture Dictionary (Easy) ○ Writing Connection - A Worm's Tale (Average) • Writing Connection - TE page 138 </td> </tr> </table> | | <ul style="list-style-type: none"> • Writing Connection - TE page 117 • Make Connections - TE page 120A <ul style="list-style-type: none"> ○ Language Arts Connection - Rock Collecting (Average) • Writing Connection - TE page 123 • Writing Connection - TE page 126 | <ul style="list-style-type: none"> • Writing Connection - TE page 129 • Make Connections - TE page 134A <ul style="list-style-type: none"> ○ Writing Connection - Picture Dictionary (Easy) ○ Writing Connection - A Worm's Tale (Average) • Writing Connection - TE page 138 |
| <ul style="list-style-type: none"> • Writing Connection - TE page 117 • Make Connections - TE page 120A <ul style="list-style-type: none"> ○ Language Arts Connection - Rock Collecting (Average) • Writing Connection - TE page 123 • Writing Connection - TE page 126 | <ul style="list-style-type: none"> • Writing Connection - TE page 129 • Make Connections - TE page 134A <ul style="list-style-type: none"> ○ Writing Connection - Picture Dictionary (Easy) ○ Writing Connection - A Worm's Tale (Average) • Writing Connection - TE page 138 | | |
| ACADEMIC CONNECTIONS TO OTHER DISCIPLINES: MATH | | | |
| <p>Math Expressions</p> <ul style="list-style-type: none"> • Math Connection - TE page 111 • Math Expressions Connections: <ul style="list-style-type: none"> ○ Unit 1 Lesson 2: Multiplication as Equal Groups MX TE pages 13-15 ○ Unit 1 Lesson 6: Building Fluency with 2s and 5s MX TE page 60 ○ Unit 1 Lesson 9: Building Fluency with 2s, 5s, 9s, and 10s MX TE page 85 ○ Unit 1 Lesson 14: Building Fluency with 2s, 3s, 4s, 5s, 9s, and 10s MX TE pages 85-86 ○ Unit 1 Lesson 16: Solve and Create Word Problems MX TE pages 147-148 ○ Unit 1 Lesson 18: Building Fluency with 0s, 1s, 2s, 3s, 4s, 5s, 9s, and 10s MX TE pages 159-160 ○ Unit 2 Lesson 4: Write Word Problems and Equations MX TE pages 204-208 ○ Unit 2 Lesson 7: Practice with 6s, 7s, and 8s MX TE page 230 ○ Unit 3 Lesson 10: Solve Word Problems Involving Time MX TE pages 367-368 ○ Unit 3 Lesson 14: Use Graphs to Solve Time and Measurement Word Problems MX TE pages 396-398 ○ Unit 4 Lesson 3: Place Value in Word Problems MX TE pages 432-434 ○ Unit 4 Lesson 4: Practice with Place Value MX TE page 439 ○ Unit 4 Lesson 8: Discuss Addition Methods MX TE page 468 ○ Unit 4 Lesson 9: The Grouping Concept in Addition MX TE page 478 ○ Unit 4 Lesson 17: Solve Word Problems MX TE pages 538-542 ○ Unit 5 Lesson 1: Addition and Subtraction Situations MX TE pages 556-561 ○ Unit 5 Lesson 2: Word Problems with Unknown Addends or Unknown Factors MX TE pages 568-572 ○ Unit 5 Lesson 3: Word Problems with Unknown Starts MX TE pages 576-580 ○ Unit 5 Lesson 4: Comparison Problems MX TE pages 587-594 ○ Unit 5 Lesson 5: Comparison Problems with Misleading Language MX TE pages 598-600 ○ Unit 5 Lesson 6: Word Problems with Extra, Hidden, and Not Enough Information MX TE pages 604-608 • Math Connection - TE page 130 • Math Expressions Connections: <ul style="list-style-type: none"> ○ Unit 3 Lesson 11: Read and Create Pictographs and Bar Graphs MX TE pages 374-378 ○ Unit 3 Lesson 12: Read and Create Bar Graphs with Multidigit Numbers MX TE pages 382-386 ○ Unit 3 Lesson 14: Use Graphs to Solve Time and Measurement Word Problems MX TE pages 396-398 ○ Unit 5 Lesson 1: Addition and Subtraction Situations MX TE pages 556-561 ○ Unit 5 Lesson 2: Word Problems with Unknown Addends or Unknown Factors MX TE pages 568-572 ○ Unit 5 Lesson 3: Word Problems with Unknown Starts MX TE pages 576-580 | | | |