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| **SUGGESTED PACING** | | | | | | | |
| **STRAND: LIFE SCIENCE (LS)**  **Topic: Interconnections within Ecosystems**  This topic focuses on foundational knowledge of the structures and functions of ecosystems.  **Content Statements:**   * Organisms perform a variety of roles in an ecosystem. * Populations of organisms can be categorized by how they acquire energy. * Food webs can be used to identify the relationships among producers, consumers and decomposers in an ecosystem. | | | | | | | |
| **PRINT RESOURCES** | | | | | | **DIGITAL RESOURCES** | |
| *ScienceFusion*   * Grade 5 Ohio Test Prep Book pages 12-19 * Unit 4, All lessons * Unit 4, TE pages 161A-198 * Unit 4, Inquiry Flip Chart pages 22-25 * Unit 5, Lessons 2-3 * Unit 5, TE pages 217A-232A * Unit 5, Inquiry Flip Chart pages 27, 29 * Science and Engineering Leveled Readers:   + On-Level/Below Level: *How Do Organisms and Their Environments Form an Ecosystem?*   + Above Level: *Predators of Shark River* | | | | | | *ScienceFusion*   * Unit 4, Lesson 1 Digital Lesson * Unit 4, Lesson 2 Digital Lesson with Virtual Lab * Unit 4, Lesson 3 Digital Lesson * Unit 5, Lesson 2 Digital Lesson * Unit 5, Lesson 3 Digital Lesson with Virtual Lab | |
| **SCIENCE AND ACADEMIC VOCABULARY** | | | | | | | |
| Adaptation, Community, Ecosystem, Energy Pyramid, Environment, Food Chain, Food Web, Habitat, Instinct, Niche, Population | | | | | | | |
| **DIFFERENTIATION** | | | **FIELD EXPERIENCE CONNECTIONS** | | | | |
| Basic (Extra Support)   * Unit 4 Response to Intervention - TE page 159I * Unit 4 TE pages 163, 166, 169, 179, 184, 186, 188 * Unit 5 Response to Intervention - TE page 199I * Unit 5 TE pages 218, 222   Advanced (Enrichment)   * Unit 4 TE pages 163, 166, 169, 179, 184, 186, 188 * Unit 4 STEM - Flipchart page 25, TE pages 159G, 193-194B * Unit 5 TE pages 218, 222 * Unit 5 STEM - Flipchart page 28, TE pages 199F, 229-230B   English Language Learners   * Unit 4 TE pages 159J-159K, 162, 165, 178, 180, 183 * Unit 5 TE pages 199J-199K, 221, 223 | | | Cleveland Metroparks Zoo: Connections to Africa Program.  ***Program Details***: Students will explore African Elephant Crossing, focusing on how living things, including people, must share resources around them. The Zoo provides scientific tools that students can use during this inquiry-driven program. To prepare in advance please locate the Metroparks Zoo Trunk and Biomimicry Kits that are present in each CMSD K-8 building. Then attend the professional development session and complete teacher and student pre- and post-visit surveys.  For information contact: Sandy Hadgis 216-635-3379 or email: [sjh2@clevelandmetroparks.com](mailto:sjh2@clevelandmetroparks.com) | | | | |
| **INQUIRY SKILLS** | | | | | | | |
| * Classify * Compare * Draw Conclusions | * Formulate or Use Models * Gather, Record, Display, or Interpret Data * Infer | | | | | | * Observe * Plan and Conduct a Simple Investigation |
| **HANDS-ON INQUIRY AND APPLICATION** | | | | | | | |
| * “The Population Puzzle” (Flipchart page 22, TE pages 159D, 161A) * “Compare Climates” (Flipchart page 22, TE pages 159D, 161A) * “What Makes Up a Land Ecosystem?” (Flipchart page 23, TE pages 159e, 175A-176A) * “Gobbling Up Your Greens” (Flipchart page 24, TE pages 159F, 177A) * “Animal Adaptations” (Flipchart page 24, TE pages 159F, 177A) * “Model a Food Web” (Flipchart page 27, TE pages 199E, 217A) * “Bring It Home” (Flipchart page 27, TE pages 199E, 217A) * “What Role Do Decomposers Play?” (Flipchart page 29, TE pages 199G, 231A-232A) | | | | | *Differentiated Inquiry*   * Unit 4, TE page 176A   + Native Plant Garden (Easy)   + Animal Population (Average)   + Population Estimates (Challenging)   + Invasive Plants (Challenging) * Unit 5, TE page 232A   + Further Observations of Mold (Easy)   + Find the Decomposer (Average)   + Composting (Average)   + Growing Mushrooms (Challenging) | | |
| **ASSESSMENTS/PROGRESS MONITORING** | | | | **ASSESSMENT GUIDE** | | | |
| * Sum it Up   + Unit 4, Lesson 1 - SE page 170, TE page 170   + Unit 4, Lesson 3 - SE page 190, TE page 190   + Unit 5, Lesson 2 - SE page 224, TE page 224 * Brain Check and Apply Concepts   + Unit 4, Lesson 1 - SE pages 171-172, TE pages 171-172   + Unit 4, Lesson 3 - SE pages 191-192, TE pages 191-192   + Unit 5, Lesson 2 - SE pages 225-228, TE pages 225-228 * Unit 4 Review - TE pages 195A-198 * Unit 4 Short Option Performance Assessment - TE page 197 | | | | * Lesson Quiz   + Unit 4, Lesson 1 - page AG 37   + Unit 4, Lesson 2 - page AG 38   + Unit 4, Lesson 3 - page AG 39   + Unit 5, Lesson 2 - page AG 47   + Unit 5, Lesson 3 - page AG 48 * Unit 4 Test and Performance Task with Long Option Rubric - pages AG 39 -AG 45 | | | |
| **ACADEMIC CONNECTIONS TO OTHER DISCIPLINES** | | | | | | | |
| ELA: Journeys   * Writing Connection - TE page 167 * Make Connections - TE page 172A   + Writing Connection - Ecosystem Research (Average) * Writing Connection - TE page 173 * Writing Connection - TE page 181 * Writing Connection - TE page 182 * Writing Connection - TE page 187 | | * Make Connections - TE page 192A   + Writing Connection - Structure and Function Fill in the Blank (Average) * Writing Connection - TE page 219 * Make Connections - TE page 228A   + Writing Connection - A Letter to Canada (Average) | | | | | |
| MATH: Math Expressions   * Math Connection - TE page 164 * *Math Expressions Connections:*   + Unit 4 Lesson 1: Shift Patterns in Multiplication MX TE pages 294-302   + Unit 4 Lesson 2: Patterns with Fives and Zeros MX TE pages 306-308   + Unit 4 Lesson 3: Sharing Methods for Multiplication MX TE pages 312-314   + Unit 4 Lesson 4: Multiply Two-Digit Numbers MX TE pages 318-322   + Unit 4 Lesson 5: Practice Multiplication MX TE page 326   + Unit 6 Lesson 2: Situation and Solution Equations for Multiplication and Division MX TE pages 482-486 * Math Connection - TE page 168 * *Math Expressions Connections:*   + Unit 1 Lesson 12: Real World Problems MX TE pages 88-90   + Unit 3 Lesson 8: Solve Real World Problems MX TE pages 244-246   + Unit 3 Lesson 13: Review Operations with Fractions MX TE pages 278-280 * Math Connection - TE page 185 * *Math Expressions Connections:*   + Unit 2 Lesson 9: Graph with Decimal Numbers MX TE page 174   + Unit 6 Lesson 11: Focus on Mathematical Processes MX TE page 549 * Math Connection - TE page 189 * *Math Expressions Connections:*   + Unit 2 Lesson 9: Graph with Decimal Numbers MX TE page 174   + Unit 6 Lesson 11: Focus on Mathematical Processes MX TE page 549 * Make Connections - TE page 192A * Math Connection - Word Problem (Average) | | | | | | | |
| **ACADEMIC CONNECTIONS TO OTHER DISCIPLINES *cont.*** | | | | | | | |
| MATH: Math Expressions *cont.*   * *Math Expressions Connections:*   + Unit 1 Lesson 12: Real World Problems MX TE pages 88-90   + Unit 3 Lesson 8: Solve Real World Problems MX TE page 246   + Unit 3 Lesson 11: Solve Division Problems MX TE pages 265-266   + Unit 3 Lesson 12: Distinguish Multiplication from Division MX TE pages 270, 273   + Unit 4 Lesson 8: Multiply with Decimals Greater Than 1 MX TE page 349   + Unit 4 Lesson 11: Multiplication Practice MX TE pages 371-372   + Unit 5 Lesson 4: Interpret Remainders MX TE pages 410-412   + Unit 5 Lesson 5: Division Practice MX TE pages 419-420   + Unit 6 Lesson 1: Situation and Solution Equations for Addition and Subtraction MX TE pages 474-477   + Unit 6 Lesson 2: Situation and Solution Equations for Multiplication and Division MX TE pages 482-486   + Unit 6 Lesson 5: Language of Comparison Problems MX TE pages 504-508   + Unit 6 Lesson 6: Multiplicative Comparison Problems MX TE pages 512-516   + Unit 6 Lesson 7: Types of Comparison Problems MX TE pages 520-524   + Unit 8 Lesson 1: Convert Metric Units of Length MX TE pages 612-614   + Unit 8 Lesson 2: Metric Units of Liquid Volume MX TE pages 619-620   + Unit 8 Lesson 3: Metric Units of Mass MX TE pages 625-626   + Unit 8 Lesson 4: Customary Units of Length MX TE page 632   + Unit 8 Lesson 5: Customary Measures of Liquid Volume MX TE page 638   + Unit 8 Lesson 6: Customary Units of Weight MX TE page 644 * Math Connection - TE page 220 * *Math Expressions Connections:*   + Unit 4 Lesson 1: Shift Patterns in Multiplication MX TE pages 294-302   + Unit 4 Lesson 2: Patterns with Fives and Zeros MX TE pages 306-308   + Unit 4 Lesson 3: Sharing Methods for Multiplication MX TE pages 312-314   + Unit 4 Lesson 4: Multiply Two-Digit Numbers MX TE pages 318-322   + Unit 4 Lesson 5: Practice Multiplication MX TE page 326   + Unit 6 Lesson 2: Situation and Solution Equations for Multiplication and Division MX TE pages 482-486 * Make Connections - TE page 228A * Math Connection - Feeding Fractions (Average) * *Math Expressions Connections:*   + Unit 1 Lesson 12: Real World Problems MX TE pages 88-90   + Unit 3 Lesson 8: Solve Real World Problems MX TE pages 244-246   + Unit 3 Lesson 13: Review Operations with Fractions MX TE pages 278-280 | | | | | | | |