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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:**   * All of the processes that take place within organisms require energy. * For ecosystems, the major source of energy is sunlight. * Energy entering ecosystems as sunlight is transferred and transformed by producers into energy that organisms use through the process of photosynthesis. That energy then passes from organism to organism as illustrated in food webs. * In most ecosystems, energy derived from the sun is transferred and transformed into energy that organisms use by the process of photosynthesis in plants and other photosynthetic organisms. | | | | | | |
| **PRINT RESOURCES** | | | | **DIGITAL RESOURCES** | | |
| *ScienceFusion*   * Grade 5 Ohio Test Prep Book pages 12-19 * Unit 5, All Lessons * Unit 5, TE pages 201A-236 * Unit 5, Inquiry Flip Chart pages 26-29 * Unit 5, 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 5, Lesson 1 Digital Lesson * Unit 5, Lesson 2 Digital Lesson * Unit 5, Lesson 3 Digital Lesson with Virtual Lab | | |
| **SCIENCE AND ACADEMIC VOCABULARY** | | | | | | |
| Chlorophyll, Consumer, Decomposer, Energy Pyramid, Food Chain, Food Web, Photosynthesis, Producer | | | | | | |
| **DIFFERENTIATION** | | **FIELD EXPERIENCE CONNECTIONS** | | | | |
| Basic (Extra Support)   * Unit 5 Response to Intervention - TE page 199I * Unit 5 TE pages 202, 207, 209, 211, 218, 222   Advanced (Enrichment)   * Unit 5 TE pages 202, 207, 209, 211, 218, 222 * Unit 5 STEM - Flipchart page 28, TE pages 199F, 229-230B   English Language Learners   * Unit 5 TE pages 199J-199K, 204, 208, 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/Order * Compare * Draw Conclusions | * Formulate or Use Models * Gather, Record, Display, or Interpret Data * Infer | | | | | * Observe * Predict |
| **HANDS-ON INQUIRY AND APPLICATION** | | | | | | |
| * “True Colors” (Flipchart page 26, TE pages 199D, 201A) * “A ‘Super” Predator” (Flipchart page 26, TE pages 199D, 201A) * “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 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 5, Lesson 1 - SE page 212, TE page 212   + Unit 5, Lesson 2 - SE page 224, TE page 224 * Brain Check and Apply Concepts   + Unit 5, Lesson 1 - SE pages 213-214, TE pages 213-214   + Unit 5, Lesson 2 - SE pages 225-228, TE pages 225-228 * Unit 5 Review - TE pages 195A-198 * Unit 5 Short Option Performance Assessment - TE page 197 | | | * Lesson Quiz   + Unit 5, Lesson 1 - page AG 46   + Unit 5, Lesson 2 - page AG 47   + Unit 5, Lesson 3 - page AG 48 * Unit 5 Test and Performance Task with Long Option Rubric - pages AG -AG | | | |
| **ACADEMIC CONNECTIONS TO OTHER DISCIPLINES** | | | | | | |
| ELA: Journeys   * Writing Connection - TE page 203 * Writing Connection - TE page 210 * Make Connections - TE page 214A   + Writing Connection - How the Dodo Bird Went Extinct (Average)   + Writing Connection - The Day the Rain Forest Disappeared (Challenging)   Writing Connection - TE page 216   * Writing Connection - TE page 219 * Make Connections - TE page 228A   + Writing Connection - A Letter to Canada (Average) | | | | | | |
| MATH: Math Expressions   * Math Connection - TE page 205 * *Math Expressions Connections:*   + Unit 1 Lesson 2: Explain Equivalent Fractions MX TE pages 8-14   + Unit 1 Lesson 7: Add Unlike Fractions MX TE pages 52-58   + Unit 1 Lesson 9: Solve with Unlike Mixed Numbers MX TE pages 68-72   + Unit 1 Lesson 10: Practice with Unlike Mixed Numbers MX TE pages 76-78 * Math Connection - TE page 206 * *Math Expressions Connections:*   + Unit 8 Lesson 14: Attributes of Quadrilaterals MX TE page 703   + Unit 8 Lesson 15: Attributes of Triangle MX TE pages 708-710   + Unit 8 Lesson 16: Attributes of Two-Dimensional Shapes MX TE page 717 * Make Connections - TE page 214A * Math Connection - Squirrels, Walnut Trees, and Nests (Easy) * *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 | | | | | | |
| **ACADEMIC CONNECTIONS TO OTHER DISCIPLINES *cont.*** | | | | | | |
| MATH: Math Expressions *cont.*   * 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 | | | | | | |