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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.
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| **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
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| **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 |
| **INQUIRY SKILLS** |
| * Classify
* Compare
* Draw Conclusions
 | * Formulate or Use Models
* Gather, Record, Display, or Interpret Data
* Infer
 | * Observe
* Plan and Conduct a Simple Investigation
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| **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)
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| **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
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| **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
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