### Suggested Pacing

**Strand: Earth and Space Science (ESS)**  
**Topic: Cycles and Patterns in the Solar System**  
This topic focuses on the characteristics, cycles, and patterns in the solar system and within the universe.

**Content Statements:**
- The sun is one of many stars that exist in the universe.
- The sun appears to be the largest star in the sky because it is the closest star to Earth. Some stars are larger than the sun and some stars are smaller than the sun.

### Print Resources

- **ScienceFusion**
  - Unit 3, Lessons 1 and 4
  - Unit 3, TE pages 107A-120A, 143A-152A
  - Unit 3, Inquiry Flip Chart pages 17, 20
- **Grade 5 Ohio Test Prep Book pages 1-11**

### Digital Resources

- **ScienceFusion**
  - Unit 3, Lesson 1 Digital Lesson
  - Unit 3, Lesson 4 Digital Lesson

### Science and Academic Vocabulary

- Astronomy, Axis, Galaxy, Orbit, Revolve, Rotate, Star, Universe

### Differentiation

#### Basic (Extra Support)
- Unit 3 Response to Intervention - TE page 105K
- Unit 3 TE pages 123, 124, 129, 131, 133

#### Advanced (Enrichment)
- Unit 3 TE pages 108, 111, 113, 114, 117, 145, 146
- Unit 3 STEM - Flipchart page 21, TE pages 105H, 153-154B

### English Language Learners
- Unit 3 TE pages 105L-105M, 109, 112, 116, 144, 148

### Field Experience Connections

- **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/Order
- Communicate
- Compare
- Draw Conclusions
- Formulate or Use Models
- Gather, Record, Display, or Interpret Data
- Observe

### Hands-On Inquiry and Application

- “Arching Paths” (Flipchart page 17, TE pages 105D, 107A)
- “Our Shadowy Moon” (Flipchart page 17, TE pages 105D, 107A)
- “Colorful Stars” (Flipchart page 20, TE pages 105G, 143A)
- “A Small Slice of the Universe” (Flipchart page 20, TE pages 105G, 143A)

### Assessments/Progress Monitoring

- **Sum it Up**
  - Unit 3, Lesson 1 - SE page 118, TE page 118
  - Unit 3, Lesson 4 - SE page 150, TE page 150
- **Brain Check and Apply Concepts**
  - Unit 3, Lesson 1 - SE pages 119-120, TE pages 119-120
  - Unit 3, Lesson 4 - SE pages 151-152, TE pages 151-152

### Assessment Guide

- **Lesson Quiz**
  - Unit 3, Lesson 1 - page AG 25
  - Unit 3, Lesson 4 - page AG 28
# ACADEMIC CONNECTIONS TO OTHER DISCIPLINES

**ELA: Journeys**
- Writing Connection - TE page 115
- Make Connections - TE page 120A
  - Writing Connection - Sun, Earth, Moon Booklet (Average)
- Writing Connection - TE page 149
- Make Connections - TE page 152A
  - Language Arts Connection - Name the Brightest Stars (Challenging)

**MATH: Math Expressions**
- Math Connection - TE page 110
- Math Expressions Connections:
  - Unit 2 Lesson 9: Graph with Decimal Numbers MX TE page 173
  - Unit 7 Lesson 6: Graph Ordered Pairs MX TE pages 595-596
  - Unit 8 Lesson 7: Read and Make Line Plots MX TE pages 648-650
- Make Connections - TE page 120A
- Math Connection - Predict Tides (Average)
- Math Expressions Connections:
  - Unit 7 Lesson 4: Patterns and Relationships MX TE page 579
  - Unit 7 Lesson 6: Graph Ordered Pairs MX TE pages 595-596
  - Unit 8 Lesson 7: Read and Make Line Plots MX TE pages 648-650
- Math Connection - TE page 147
- 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 152A
- Math Connection - Compare Light-Years (Average)
- Math Expressions Connections:
  - Unit 7 Lesson 5: The Coordinate Plane MX TE pages 584-590
  - Unit 7 Lesson 6: Graph Ordered Pairs MX TE pages 594-596