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| **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:*** Most of the cycles and patterns of motion between the Earth and sun are predictable.
* Earth’s revolution around the sun takes approximately 365 days. Earth completes one rotation on its axis in a 24-hour period, producing day and night. This rotation makes the sun, stars and moon appear to change position in the sky. Earth’s axis is tilted at an angle of 23.5°. This tilt, along with Earth’s revolution around the sun, affects the amount of direct sunlight that the Earth receives in a single day and throughout the year. The average daily temperature is related to the amount of direct sunlight received. Changes in average temperature throughout the year are identified as seasons.
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| **PRINT RESOURCES** | **DIGITAL RESOURCES** |
| *ScienceFusion** Grade 5 Ohio Test Prep Book pages 1-11
* Unit 3, Lesson 1
* Unit 3, TE pages 107A-120A
* Unit 3, Inquiry Flip Chart page 17
* Unit 3, Science and Engineering Leveled Readers:
	+ On-Level/Below Level: *How Do the Sun, Earth, and Moon Move In Space?*
	+ Above Level: *To the Moon*
 | *ScienceFusion** Unit 3, Lesson 1 Digital Lesson
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| **SCIENCE AND ACADEMIC VOCABULARY** |
| Axis, Orbit, Revolve, Rotate,  |
| **DIFFERENTIATION** | **FIELD EXPERIENCE CONNECTIONS** |
| Basic (Extra Support)* Unit 3 Response to Intervention - TE page 105K
* Unit 3 TE pages 108, 111, 113, 114, 117

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

English Language Learners* Unit 3 TE pages 105L-105M, 109, 112, 116
 | 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** |
| * Communicate
 | * Draw Conclusions
 | * Gather, Record, Display, or Interpret Data
 | * Observe
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| **HANDS-ON INQUIRY AND APPLICATION** |
| * “Arching Paths” (Flipchart page 17, TE pages 105D, 107A)
* “Our Shadowy Moon” (Flipchart page 17, TE pages 105D, 107A)
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| **ASSESSMENTS/PROGRESS MONITORING** | **ASSESSMENT GUIDE** |
| * Sum it Up
	+ Unit 3, Lesson 1 - SE page 118, TE page 118
* Brain Check and Apply Concepts
	+ Unit 3, Lesson 1 - SE pages 119-120, TE pages 119-120
* Unit 3 Review - TE pages 155A-158
* Unit 3 Short Option Performance Assessment - TE page 157
 | Lesson Quiz* Unit 3, Lesson 1 - page AG 25
* Unit 3 Test and Performance Task with Long Option Rubric - pages AG-AG
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| **ACADEMIC CONNECTIONS TO OTHER DISCIPLINES**  |
| ELA: Journeys* Writing Connection - TE page 115
* Make Connections - TE page 120A
	+ Writing Connection - Sun, Earth, Moon Booklet (Average)
 | 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
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