CURRICULUM MAP **Science: Grade 5**

THIRD QUARTER

Performance Expectations	Disciplinary Core Ideas	Science and Engineering Practices	Crosscutting Concepts
• **5-ESS1-1:** Support an argument that differences in the apparent brightness of the Sun compared to other stars is due to their relative distances from the Earth. • **5-ESS1-2:** Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. • **5-PS2-1:** Support an argument that the gravitational force exerted by Earth on objects is directed down.	**ESS1.A: The Universe and Its Stars** • **The Sun is a star that appears larger and brighter than other stars because it is closer. Stars range greatly in their distance from Earth.** **ESS1.B: Earth and the Solar System** • **The orbits of Earth around the Sun and of the Moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns. These include day and night; daily changes in the length and direction of shadows; and different positions of the Sun, Moon, and stars at different times of the day, month, and year.** **PS2.B: Types of Interactions** • **The gravitational force of Earth acting on an object near Earth's surface pulls that object toward the planet's center.** **ETS1.A: Defining and Delimiting Engineering Problems** • **Possible solutions to a problem are limited by available materials and resources (constraints). The success of a designed solution is determined by considering the desired features of a solution (criteria). Different proposals for solutions can be compared on the basis of how well each one meets the specified criteria for success or how well each takes the constraints into account.** **ETS1.C: Optimizing the Design Solution*** • **Different solutions need to be tested in order to determine which of them best solves the problem, given the criteria and the constraints.**	**Focal:** • Developing and using models • Analyzing and interpreting data • Constructing explanations • Engaging in argument from evidence • Obtaining, evaluating, and communicating information **Supporting:** • Defining problems • Planning and carrying out investigations • Using mathematics and computational thinking • Designing solutions	**Focal:** • Patterns • Cause and effect • Scale, proportion, and quantity **Supporting:** • Systems and system models