



## Unit 5 Earth's Place in the Universe

### Grade 5 Science

#### Unit Description:

Students will support an argument that the apparent brightness of the sun and stars is due to their relative distances from the Earth. Also, students will explain the patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. Students will also explain that the gravitational force exerted by Earth on objects is directed down.

#### Science Standards:

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| <b>5-ESS1-1</b> | Support an argument that the apparent brightness of the sun and stars is due to their relative distances from the Earth.  |
| <b>5-ESS1-2</b> | 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. |
| <b>5-PS2-1</b>  | Support an argument that the gravitational force exerted by Earth on objects is directed down.  |

#### Enduring Understandings- Unit Anchor Phenomenon:

Dung Beetles can navigate using the starry sky and the glow of the Milky Way Galaxy.

#### Essential Questions- Reflective Summaries:

- Make a claim supported by evidence that the differences in the brightness of the sun compared to other stars is due to their relative distance from the Earth. How does the brightness of stars help dung beetles navigate?
- Explain how patterns of day and night and seasonal appearance of stars impact dung beetles.
- Construct an argument supported by evidence that the gravitational force exerted by the Earth is directed down.