

DISCOVERY PARK OF AMERICA

Field Trip Programs

2020

**Multi
Level
Elementary**



Stars: Science and Culture

Standards Covered:

- 1.ESS2: #2) Observe natural objects in the sky that can be seen from Earth with the naked eye and recognize that a telescope, used as a tool, can provide greater detail of objects in the sky.
- 2.ETS2: #1) Use appropriate tools to make observations, record data, and refine design ideas.
- 3.SSP05 #2) Recognize how past events and issues might have been experienced by the people of that time, with historical context and empathy rather than present-mindedness #3) Identify patterns of continuity and change over time, making connections to the present
- 4.ESS1: #2) Use a model to explain how the orbit of the Earth and sun cause observable patterns: a. day and night; b. changes in length and direction of shadows over a day.
- 4.ETS2: #3) Explain how engineers have improved existing technologies to increase their benefits, to decrease known risks, and to meet societal demands (artificial limbs, seatbelts, cell phones).
- 5.ESS1: #1) Explain that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from the Earth.
- 6.PS3: #1) Analyze the properties and compare sources of kinetic, elastic potential, gravitational potential, electric potential, chemical, and thermal energy.
- 6.PS#: #4) Conduct an investigation to demonstrate the way that heat moves among objects through radiation, conduction, or convection.

This lesson focuses on the phenomenon of stars and explains why so much of human history and culture is centered around them. Topics covered include the sizes and distances inherent in studying stars, various breakthroughs scientists have made in studying them, and what being an astronomer truly means. Students will get the chance to

look through a handmade telescope, form and observe their own constellations, make notecards that simulate starlight in daytime, form a swirling galaxy in a bowl of water, and make a paper disk that explains perceived motions of stars. Students will learn how people's observations and interpretations of stars make the night sky so special.



**DISCOVERY PARK
OF AMERICA**
See beyond.

830 Everett Blvd
Union City, TN 38261
731.885.5455
discoveryparkofamerica.com