Noble Planetarium Classroom Companion
5,000 Eyes

SHOW OVERVIEW
What does our universe look like? This is what DESI is trying to figure out. Using 5,000 tiny robots, DESI can measure the distances of 5,000 galaxies at once. Be amazed as we transport you to the far reaches of our universe.

Length: 25 minutes
Grade level: 6-12

EXTENSION IDEAS FOR TEACHERS:
Galaxy Mapping Model – Students create a visual map showing the distribution of galaxies to understand how scientists study the structure of the universe.
Build a Telescope Model – Students design a simple telescope model and explain how technology helps scientists observe distant objects in space.
Classify Stars Activity – Students use a simplified Hertzsprung-Russell diagram to classify stars by brightness and temperature.
Scale of the Universe Model – Students create a scale comparison showing the relative sizes of planets, stars, galaxies, and the universe.
Electromagnetic Spectrum Sort – Students sort examples of electromagnetic waves such as visible light, radio waves, and infrared to understand how scientists gather information about distant objects.
Milky Way Location Map – Students identify the position of our Sun within the Milky Way galaxy and compare its location to other stars.
Technology in Astronomy Match – Students match tools such as telescopes, satellites, and robotic instruments to their role in studying space.

PROGRAM TEKS
6.11(B) understand that gravity is the force that governs the motion of our solar system

8.8(A) describe components of the universe, including stars, nebulae, and galaxies, and use models such
as the Hertzsprung-Russell diagram for classification

8.8(B) recognize that the Sun is a medium-sized star located in a spiral arm of the Milky Way galaxy and
that the Sun is many thousands of times closer to Earth than any other star

8.8(C) identify how different wavelengths of the electromagnetic spectrum such as visible light and radio waves are used to gain information about components in the universe

Critical Thinking Questions:

Ask students, *"Based on what you learned in the show, how does technology help scientists observe distant galaxies?"*
Ask students, *"Based on what you learned in the show, why do scientists want to measure distances between galaxies?"*
Ask students, *"Based on what you learned in the show, how do robots help scientists gather information about the universe?"*
Ask students, *"Based on what you learned in the show, how does gravity influence the motion of galaxies?"*
Ask students, *"Based on what you learned in the show, what are the main components of the universe?"*