Kentucky
Middle School

Starry Night Lesson Plans
In order of relevance

Grade 5 Enduring Knowledge – Understandings						
· Observations, models and diagrams of the solar system illustrate the position and relationship of the Earth, sun and moon within the larger system of planets and other celestial bodies. Even though they are all parts of the same system, a comparison of their properties reveals great differences among celestial bodies.	A1-A5	B1-B2	C1-C4	D1-D3	E1-E4	F1-F3
Technology extends the ability of people to understand the universe. Most tools of today are different than those of the past, but may also be modifications of much older tools.	G1-G2	H1-H2	I1-I2	F2		
Grade 6 Enduring Knowledge – Understandings						
· Regular and predictable movements of the sun, moon and Earth are responsible for many observed phenomena on Earth, (e.g. day/night, year, moon phases, eclipses). The regular patterns of these phenomena can be predicted using data or models.	A1-A5	E1-E4				
· Complex systems like the Earth or solar system are difficult to comprehend or explain without depending on averages and ranges of data. Technology is essential for helping to collect and analyze this data.	B1-B2	C1-C4	I1-I2			
Grade 7 Enduring Knowledge – Understandings						
· Regular and predictable movement is not limited to our solar system. New technologies, coupled with an understanding of the laws of motion, allow for the discovery of celestial bodies that cannot be directly observed.	I1-I2	C2	G2	G3	H1-H2	D3
· Our solar system is part of a larger collection of millions of stars (Milky Way Galaxy), any of which may be the center of its own system of orbiting planets.	G1-G3	H1-H2				
· Gravitational interactions within the Earth, sun and moon system impact phenomena and organisms on the surface of the Earth.	A3	C2				
Grade 8 Enduring Knowledge – Understandings (Physical Science)						
· Isaac Newton developed a set of rules that can be used to describe and predict virtually all observed motion on Earth and in the universe. These Laws of Motion demonstrate that the rules governing the Earth are the same as those controlling the rest of the observed universe.	C2	F3	G3	H1-H2	I2	
· Preconceived expectations can influence what people actually observe, preventing them from detecting other results. In order to maintain objectivity, different investigators should investigate the same question independently. For example, Newton's Laws are widely accepted because they have been verified by so many different observers.	E4	C4				