

**New Brunswick**  
High School

**Starry Night Lesson Plans**  
*In order of relevance*

**Grade 9**

**Earth and Space Science: Space Exploration**

312-1 describe theories on the formation of the solar system	F3	B1-B2	C1		
312-2 describe and classify the major components of the universe (nebulae, galaxies, giant stars, dwarf stars, quasars, black holes (312-2))	C1-C4	F1-F3	G1-G3	H1-H3	
calculate the travel time to a distant star at a given speed: define and explain a light year (210-9)	G1				
explain how data provided by technologies contribute to our knowledge of the universe (109-3)	I1-I3	F1-F3	G1-G3	H1-H3	C1-C4
prepare a comparative data table on various stars, and design a model to represent some of these stars relative to our solar system (209-4, 211-1, 211-3)	G1-G3				
312-3 describe theories on the origin and evolution of the universe (big bang theory, oscillating theory (312-3))	H2	H3	I3		
312-4 describe and explain the apparent motion of celestial bodies (moon, sun, planets, comets, asteroids (312-4))	A1-A5	B1-B2	C2	D1-D3	
312-5 describe the composition and characteristics of the components of the solar system (terrestrial and gas planets and Pluto, periodicity of comets, asteroids/meteors (312-5))	C1-C4	D1-D3			
312-6 describe the effects of solar phenomena on Earth (sunspots, solar flares, solar radiation (312-6))	F1-F3				

**Nature of Science and Technology**

109-3 describe and explain the role of experimentation, collecting evidence, finding relationships, proposing explanations, and imagination in the development of scientific knowledge	All Starry Night Lesson Plans				
explain how data provided by technologies contribute to our knowledge of the universe(109-3)	I1-I3	C1-C4	F2	G1-G3	H1-H3
110-6 explain the need for new evidence in order to continually test existing theories	C4	E4	F3	H1-H3	
explain the need for new evidence in order to continually test existing theories about the composition and origin of our solar system and galaxies (110-6)	C4	E4	F3	H1-H3	

**Relationships Between Science and Technology**

111-5 describe the science underlying particular technologies designed to explore natural phenomena, extend human capabilities, or solve practical problems	I1-I3	C1-C4	G1-G3	H1-H3	F1-F3
identify new questions and problems that arise from the study of space exploration (210-16)	C1-C4	G1-G3	H1-H3	F1-F3	
describe the science underlying three technologies designed to explore space (109-11, 111-5)	I1-I3				