

Pan Canadian Curriculum: Common Framework of Science Learning Outcomes

Grade 9 Earth and Space Science

- 312-1 Theories on the formation of the Solar System
- 312-2 Describe and classify major components of the Universe
- 312-3 Describe theories on the origin and evolution of the Universe
- 312-4 Describe and explain the apparent motion of celestial bodies
- 312-5 Describe the composition and characteristics of the Solar System
- 312-6 Describe the effects of solar phenomena on Earth

Section	Lesson Plan	312-1	312-2	312-3	312-4	312-5	312-6
Earth, Moon and Sun	A1 Day and Night Cycle				■		
	A2 The Year and Seasons				■		
	A3 The Moon				■		
	A4 Phases of the Moon				■		
	A5 Eclipses					■	
The Solar System	B1 Overview of the Solar System	■	■		■	■	
	B2 Size and Scale of the Solar System	■				■	
	C1 The Inner and Outer Planets of the Solar System	■			■	■	
The Planets	C2 Motion of the Planets	■			■	■	
	C3 The Moons of the Planets	■			■	■	
Asteroids, Comets and Meteors	D1 Asteroids and the Main Belt	■			■	■	
	D2 Comets and Meteors	■			■	■	
	D3 Impact: Near Earth Objects	■			■	■	
Star Finding and Constellations	E1 Finding Your Way Around the Sky				■		
	E2 Constellations and Star Lore				■		
	E3 Seasonal Constellations				■		
The Sun as a Star	F1 The Sun as a Source of Energy	■	■			■	■
	F2 Solar Weather	■				■	■
	F3 The Formation of the Sun and Solar System	■	■		■	■	
The Stars	G1 The Solar Neighborhood		■		■		
	G2 The Stars		■	■	■		
Galaxies and the Universe	H1 The Milky Way Galaxy		■	■			
	H2 The Universe		■	■	■		
	H3 The Origin and Evolution of the Universe		■	■	■		
Space Exploration and Technology	I1 Tools of the Astronomer		■	■			
	I2 Artificial Satellites and the Space Environment						

Pan Canadian Curriculum: Common Framework of Science Learning Outcomes

Grade 11-12	Earth and Space Science
333-1	Compare and contrast theories on the origin of the Universe
333-2	Describe tools and methods used to observe and measure the Universe
333-3	Identify and compare components of the Universe
333-4	Compare characteristics of galaxies
333-5	Describe the life cycle of stars
333-6	Compare the composition of stars at different stages of their life cycles

Section	Lesson Plan						
		333-1	333-2	333-3	333-4	333-5	333-6
Earth, Moon and Sun	A1 Day and Night Cycle						
	A2 The Year and Seasons						
	A3 The Moon						
	A4 Phases of the Moon						
	A5 Eclipses			■			
The Solar System	B1 Overview of the Solar System			■			
	B2 Size and Scale of the Solar System		■				
The Planets	C1 The Inner and Outer Planets of the Solar System						
	C2 Motion of the Planets		■				
Asteroids, Comets and Meteors	C3 The Moons of the Planets						
	D1 Asteroids and the Main Belt						
	D2 Comets and Meteors						
Star Finding and Constellations	D3 Impact: Near Earth Objects						
	E1 Finding Your Way Around the Sky		■				
	E2 Constellations and Star Lore						
The Sun as a Star	E3 Seasonal Constellations						
	F1 The Sun as a Source of Energy		■	■			■
	F2 Solar Weather						
The Stars	F3 The Formation of the Sun and Solar System			■		■	■
	G1 The Solar Neighborhood		■	■			
	G2 The Stars	■	■	■		■	■
Galaxies and the Universe	H1 The Milky Way Galaxy	■		■	■		
	H2 The Universe	■	■	■	■		
	H3 The Origin and Evolution of the Universe	■	■	■	■		
Space Exploration and Technology	I1 Tools of the Astronomer	■	■	■		■	■
	I2 Artificial Satellites and the Space Environment		■				

Pan Canadian Learning Outcomes Earth and Space Science

Pan Canadian Grade 9		Starry Night Lesson Plans <i>In order of relevance</i>
312-1:	Describe theories on the formation of the Solar System.	F3 B1 C2 D1 D2 D3
312-2:	Describe and classify the major components of the Universe.	F1 G1 G2 H1 H2
312-3:	Describe theories on the origin and evolution of the Universe.	H3 H2 I1
312-4:	Describe and explain the apparent motion of celestial bodies.	A1 A2 A4 C2 D2 E3
312-5:	Describe the composition and characteristics of the components of the Solar System.	B1 B2 C1 C2 C3 D1 D2 D3 F3
312-6:	Describe the effects of solar phenomena on Earth.	F1 F2
Pan Canadian Grade 11		
333-1	Compare and contrast theories on the origin of the Universe.	H3 H2
333-2	Describe tools and methods used to observe and measure the Universe.	I1 I2 G2 G1
333-3	Identify and compare components of the Universe.	F3 F1 G1 G2 H1 H2
333-4	Compare characteristics of galaxies.	H2 H1
333-5	Describe the life cycle of stars.	G2 F3
333-6	Compare the composition of stars at different stages of their life cycles.	G2 F3