

Fifth Grade Unit 4

Code	Statements & Expectations	Page	Learning Targets
E.ES.M.6	Seasons – Seasons result from annual variations in the intensity of sunlight and length of day due to the tilt of the axis of the Earth relative to the plane of its yearly orbit around the sun.	3	
E.ES.05.61	Demonstrate and explain seasons using a model.	3	E.ES.05.61.a – I can use a model to demonstrate what causes seasons.
E.ES.05.62	Explain how the revolution of the Earth around the sun defines a year.	4	E.ES.05.62.a – I can identify how one revolution of the Earth around the sun equals a year.
E.ST.M.1	Solar system – The sun is the central and largest body in our solar system. Earth is the third planet from the sun in a system that includes other planets and their moons, as well as smaller objects, such as asteroids and comets.	5	
E.ST.05.11	Design a model of the solar system that shows the relative order and scale of the planets, dwarf planets, comets and asteroids to the sun.	5	E.ST.05.11.a – I can design a model of our solar system.
E.ST.M.2	Solar System Motion – Gravity is the force that keeps most objects in the solar system in regular and predictable motion.	6	
E.ST.05.21	Describe the motion of planets and moons in terms of rotation on axis and orbits due to gravity.	6	E.ST.05.21.a – I can explain the motion of the planets and moons. E.ST.05.21.b – I can explain how gravity affects the motion of the planets and moons.
E.ST.05.22	Explain the phases of the moon.	7	E.ST.05.22.a - I can describe the phases of the moon and how the phases relate to its position in orbit.
E.ST.05.23	Explain the apparent motion of the stars (constellations) and the sun across the sky.	8	E.ST.05.23.a - I can explain how the sun and stars appear to move across

			the sky.
E.ST.05.24	Explain lunar and solar eclipses.	8	E.ST.05.24.a - I can describe how a lunar eclipse occurs. E.ST.05.24.b - I can describe how a solar eclipse occurs.
E.ST.05.25	Explain the tides of the oceans as they relate to the gravitational pull and orbit of the moon.	9	E.ST.05.25.a - I can describe how tides are related to the moons gravitational pull and orbit of the moon.

Inquiry Process	Learning Targets
S.IP.05.11 Generate scientific questions based on observations, investigations, and research concerning the position and motion of objects in the sky.	S.IP.05.11.a - I can create a scientific question based on observations. S.IP.05.11.b – I can form a hypothesis based on observations and prior knowledge. S.IP.05.11.c – I can plan an investigation to prove my hypothesis. S.IP.05.11.d – I can prove or disprove my hypothesis based on the results of my investigation.
S.IP.05.13 Use tools and equipment (models) appropriate to scientific investigations for the position and motion of objects in the sky.	S.IP.05.13.a - I can accurately use tools to take measured observations during an investigation.
S.IP.05.15 Construct charts and graphs from data and observations dealing with the position and motion of objects in the sky.	S.IP.05.15.a – I can construct charts and graphs using the data from my investigation to prove or disprove my hypothesis.
S.IP.05.16 Identify patterns in data dealing with the position and motion of objects in the sky.	S.IP.05.16.a – I can identify patterns in data.
Inquiry Analysis and Communication	
S.IA.05.12 Evaluate data, claims, and personal knowledge through collaborative science discourse about the position and motion of objects in the sky.	S.IA.05.12.a – I can use data, prior knowledge, and observations to discuss the results of my investigation.

S.IA.05.13 Communicate and defend findings of observations and investigations about the position and motion of objects in the sky using evidence.	S.IA.05.13.a – I can support my hypothesis by using data collected from my investigation.
S.IA.05.15 Use multiple sources of information on the position and motion of objects in the sky to evaluate strengths and weaknesses of claims, arguments, or data.	S.IA.05.15.a - I can use multiple sources of data collected to support or confirm my own results.
Reflection and Social Implications	
S.RS.05.11 Evaluate the strengths and weaknesses of claims, arguments, and data regarding the reasons for the position and motion of objects in the sky.	S.RS.05.11.a – I can identify strengths and weaknesses in my results by comparing them to others results.
S.RS.05.13 Identify the need for evidence in making scientific decisions about the position and motion of objects in the sky.	S.RS.05.15.a – I can show my understanding through illustrations, performances, models, exhibits, and activities.
S.RS.05.15 Demonstrate scientific concepts concerning the position and motion of objects in the sky through various illustrations, performances, models, exhibits, and activities.	S.RS.05.17.a – I can describe the impact humans or any other organisms have on the balance of the natural world.