

1. **Essential Standard: Universe #5:** Describe how the planets' gravitational pull keeps satellites and moons in orbit around them. (*Astronomy* 1.2 pg. 16-19, *Motion, Forces and Energy* 1.5, pg. 65-66) 6.2.D.b

Course: ___ Science		Grade Level: 7th
<u>Score 4.0</u> More Complex Learning Goal	In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.	
	<u>Score 3.5</u>	In addition to score 3.0 performance, the student demonstrates in-depth inferences and applications with partial success.
<u>Score 3.0</u> TARGET! "Challenging but Attainable"	<p>The student demonstrates an understanding of how the planets' gravitational pull keeps satellites and moons in orbit around them by....</p> <ul style="list-style-type: none"> • defining Newton's 1st law (inertia) • defining gravity and how it is related to distance and size • identifying that a moon is a satellite of a planet (any object that revolves around another object is a satellite: Earth to sun) • describe that the orbit of an object will not change if inertia and gravity do not change <p>The student exhibits no errors or omissions on proficient questions.</p>	
	<u>Score 2.5</u>	The student exhibits no major errors or omissions regarding the score 2.0 elements and partial knowledge of the score 3.0 elements.
<u>Score 2.0</u> Simpler Learning Goal	<p>The student exhibits <i>no major errors or omissions regarding the simpler details and processes, such as...</i></p> <ul style="list-style-type: none"> • identifying Newton's 1st law (inertia) • identifying that gravity decreases as distance increases • identifying that gravity increases as mass increases • identifying that a moon is a satellite of a planet (any object that revolves around another object is a satellite: Earth to sun) • identifying that the orbit of an object will move in a straight line if gravity stops • identifying that the orbit of an object will be pulled in if inertia decreases <p>However, the student exhibits major errors or omissions with score 3.0 elements.</p>	
	<u>Score 1.5</u>	The student demonstrates partial knowledge of the score 2.0 elements but major errors or omissions regarding the score 3.0 elements.
<u>Score 1.0</u>	With help, the student demonstrates partial understanding of some of the score 2.0 elements and some of the score 3.0 elements.	
	<u>Score 0.5</u>	With help, the student demonstrates partial understanding of some of the score 2.0 elements but not the score 3.0 elements.