

Rendezvous with a Comet
The Earth in the Solar System

Summary Page

Performance Task Title: Is Pluto Really a Planet?

Grade Level(s): MA 6-8 Nat'l 5-8	Discipline: Earth/Space Science
Enduring Understanding: Gravity is the force that holds all the parts of the solar system together and affects the motions of its members. Gravity cannot be seen, but its predictable effects on the motions of the planets can be depicted through the creation of models. Scientific models are developed to accurately predict behavior in nature.	
Unifying Concept: systems, order, organization, evidence, models, explanation.	
Essential Question: How does gravity affect the motion of a planet or a comet? How can we distinguish between the orbits of planets and comets?	
National Standard: <i>Gravity is the force that keeps planets in orbit around the sun and governs the rest of the motion in the solar system.</i>	
Massachusetts Framework: <i>Gravity plays a major role in the formation of the planets, stars, and solar system and in determining their motions.</i>	
Thinking Skills:	Focus Questions Connecting Content to the Thinking Skills:
Prior Ideas: journal entry Using evidence to support and defend a claim.	What arguments can you make to support the claim that Pluto is (or is not) a planet?
Problem Solving: Research, use of a comparison matrix to gather evidence to support a claim. Use of models to support a claim.	
Work Habit(s): Teamwork, organizational skills, attention to detail.	
Format of Performance: Written scientific explanation with accompanying diagrams, models, and matrix.	
Audience: Scientists	Purpose: Argue a debatable issue.
Role of the Learner in this Task: Research scientist, astronomer.	