

## **Discovering Newton's Laws of Motion and Gravity through the Solar System**

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### **Synopsis**

This unit is on Newton's three Laws of Motion and Newton's Universal Law of Gravitation. For the Earthbound, gravity and friction are two forces that are difficult to escape. Because of this students consider objects to be acting in their natural state in the presence of gravity and friction and have a hard time visualizing what objects would do in their absence. Their experiences on Earth are not the best examples to pull from when trying to explain these concepts, but examples from the Solar System help to give students the background knowledge needed to comprehend the abstract concepts of inertia and gravity.

In this unit students will explore the unique life of Isaac Newton and learn about his discoveries as they use technology and experimentation to better grasp his laws. As a culminating project students use web 2.0 applications to create presentations that demonstrate their mastery of the content.

Also provided in the unit is the background needed for teachers who are unfamiliar with Newton's laws. Physics can be just as intimidating for adults as it is for students. This unit will help teachers to better understand these concepts and offers resources for those teachers interested in learning more.