

Force and Motion

Jan. 21, 2020

Day 2/86

At the end of today's lesson you will be able to determine;

- How do forces affect motion?

Classwork-

- Force and Motion 2.1
- Students begin to investigate mass. An official message from NASA lets students know that this pod's thrusters exerted the same force as other ACM pods, so a new explanation is proposed: Could the failure to dock have been a result of this pod collecting a different number of asteroid samples than pods on other missions? To investigate this idea, students first work with physical materials to plan and conduct an investigation about how exerting the same force affects objects of different mass.
- This investigation also serves as an assessment that is designed to reveal students' facility with the practices of Planning and Conducting Investigations and Analyzing and Interpreting Data, and with their understanding of unit-specific science concepts and the crosscutting concept of Cause and Effect.
- Students build on their observations by conducting tests on stationary and moving objects in the Simulation. By the end of the lesson, students begin thinking that if the pod's mass was different in this mission, then the thruster force would have caused a different-than-expected velocity change.
- The purpose of this lesson is to introduce students to the relationship between force, mass, and change in velocity.

Homework-

- Finish up all of the activities in the Force and Motion section 2.1
- Review the vocabulary terms we will use in this unit. Force and Motion Quizlet.

