

# FORCE AND MOTION

## UNIT QUESTION:

*How do forces affect motion?*

## Chapter Questions:

- 1. What caused the pod to change direction?*
- 2. The thrusters on the ACM pod exerted the same strength force as thrusters on other pods, so why did this pod move differently?*
- 3. After the collision, how does the pod's motion compare to the motion of the space station?*
- 4. What is the difference between Claire's test of the collision scene where Vehicle 2 fell off the cliff and the film, Iceworld Revenge, where it did not?*

## Key Concepts:

1. A force is required to change the velocity of an object.
2. How an object changes velocity depends on the direction of the force exerted on that object.
3. A stronger force can cause a greater change in velocity.
4. Understanding a cause-and-effect relationship can help you infer what led to a particular result.
5. If the same strength force is exerted on two objects but the objects have different masses, the object with less mass will have a greater change in velocity.
6. When two objects collide, a force is exerted on each object. The two forces are exerted in opposite direction, but they are the same strength.
7. Even though the force exerted on each object in a collision is the same strength, if the objects have different masses, their changes in velocity will be different.