

MODULE

Forces

- Understand that gravity is a force of attraction between massive objects.
- Experiment with and explain the difference between a balanced force and an unbalanced force acting on an object.
- Experiment with and determine the average velocity of an object.
- Experiment with and determine the acceleration of an object.

SESSION FOCUS

- 1 Air Table Experiments
- 2 Inclined Ramp Experiment
- 3 Elevated Air Table Experiment
- 4 Spinning Disk
- 5 Elevated Air Table Experiment
- 6 Inclined Ramp Experiment
- 7 Newton’s Laws

Dear Parent,

As parents and teachers, we realize it can be hard to get a child to discuss what he or she is learning in school. We hope the information provided on this page will assist you in communicating with your child about what he or she is learning.

Your participation in the learning process is extremely important, as you are your child’s best teacher.

For the next few days, your child will be learning about forces and how they affect the motion of objects by completing the *Forces* Module.

Words students will learn in this Module include:

- acceleration
- balanced force
- centripetal force
- deceleration
- friction
- inertia
- inert object
- momentum
- unbalanced force
- velocity

Questions for Discussion

During the course of this Module, your child will be assessed on key concepts and activities. You might want to discuss these concepts and activities with your child. He or she will be asked to:

- State Newton’s first law and explain what it means. (*The law is, “An object in motion tends to stay in motion and an object at rest tends to stay at rest unless acted upon by an unbalanced force.” This means that it takes a force to cause something to begin moving or to change its speed.*)
- Provide examples of natural forces. (*Answers will vary but might include friction, gravity, wind, and/or air resistance.*)
- Explain centripetal acceleration. (*It is the acceleration necessary to keep an object moving in a curved path and is directed inward toward the center of rotation.*)

Student: _____

Parent: _____