

## Product Experiments

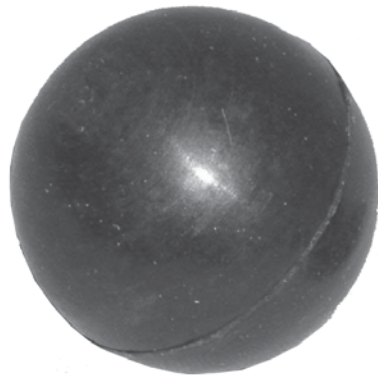
### **HAPPY/SAD BALLS**

**Can be used to enrich and satisfy Common Core State Standards.  
Common Core State Standards ELA.Literacy.RST.6-8.2, ELA.Literacy. RST.6-8.8,  
and ELA.Literacy.RST.6-8.9 can all be met.**

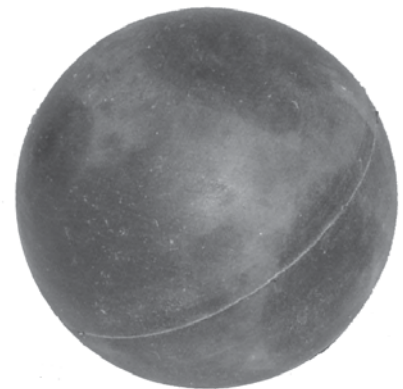
Educators of both middle school and upper elementary level can help students better understand how collisions work with the use of Happy/Sad Balls.

Both of the balls look the same but when students hold the balls they will notice the difference in weight. Instructors may have students gather around as they demonstrate the Happy/Sad balls or they can break up into small groups where they can perform their own experiments.

The Happy and then Sad balls are dropped from table level on to the ground. Students will then be able to observe the in-elasticity and elasticity of each of the balls. One ball absorbs energy while the other uses the energy to propel upward. Formulas are included in the product instructions.



#611-0380



- **Bounce the happy ball back and forth about a central location. Release from a given height with both a spin and a horizontal speed.**
- **Throw the happy ball off a smooth horizontal surface and then under a table. Note the ball usually comes back to you, like a boomerang. Why?**