

Name: \_\_\_\_\_

Date: \_\_\_\_\_



## GENIUSCHALLENGE

### BALANCED & UNBALANCED FORCES

1. What 2 things do all forces have? \_\_\_\_\_
2. When playing tug of war and neither side moves, forces are...  
**a.** unbalanced      **b.** balanced      **c.** multiplied      **d.** unequal
3. In tug of war, when one team moves toward the other, what can be said about the forces?  
\_\_\_\_\_
4. When floating a ping-pong ball with a hairdryer, which two forces are balanced?  
Force pulling down: \_\_\_\_\_ Force pushing up: \_\_\_\_\_
5. If the hairdryer was put on full power, what would happen? Why?  
\_\_\_\_\_  
\_\_\_\_\_
6. When Dr. Jeff jumps on a skateboard and uses the fire extinguisher to move, which of these does he change to move BACK to where he started?  
**a.** amount of force      **b.** type of force      **c.** direction of force      **d.** skateboard wheels
7. True or false: balanced forces are important for a hover board to float. \_\_\_\_\_
8. In Zoe's egg drop experiment, which two forces are balanced that keep the egg from moving before she hits the pan?  
**1.** \_\_\_\_\_ **2.** \_\_\_\_\_
9. True or false: the downward motion of the egg in Zoe's experiment is due to unbalanced forces.  
\_\_\_\_\_
10. When Izzy applied a force to the golf ball, it went in the right direction, so why didn't it go in the hole?  
\_\_\_\_\_