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?

    _____

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