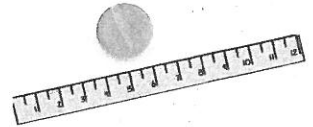


Name \_\_\_\_\_ Date \_\_\_\_\_

## Let's Investigate!



**Question: How do balanced and unbalanced forces affect the motion of a ball?**

1. Place the ball on the floor. What forces are acting on it?
2. Are the forces balanced or unbalanced? How do you know?
3. Push the ball gently with one finger while your partner pushes back gently with one finger in the opposite direction. What happens to the ball? What forces are acting on it?
4. Are the forces balanced or unbalanced? How do you know?
5. Push the ball gently when your partner is not pushing back. What happens to the ball? What forces are acting on it?
6. Are the forces balanced or unbalanced? How do you know?

7. What forces eventually cause the ball to stop?

8. Try balancing the ball on a ruler. What forces are acting on it?

9. Are the forces balanced or unbalanced? How do you know?

10. What changes when you tilt the ruler?

11. I can conclude that balanced forces cause a ball to \_\_\_\_\_,  
and unbalanced forces cause a ball to \_\_\_\_\_.

12. Think about the game of bowling. Explain an example of balanced and unbalanced forces that we could observe during a game of bowling. You may even draw a diagram if you choose.