

## Research Question Sheet

1. How long does it take the average fast ball to reach home plate? What factors do you think could affect the balls speed?
2. How does the wind affect the hitting of the ball?
3. How does the atmospheric pressure affect hitting the ball? (What is ‘atmospheric pressure’?)
4. What is meant by the trajectory of the ball?
5. What is meant by the density of the air and can this affect the movement of the ball?
6. What is meant by the viscosity of the air and can this affect the movement of the ball?
7. Why is the density of the air different at Denver’s Coors Stadium than at Boston’s Fenway Park?
8. What is humidity? How does this affect the air?
9. When will a ball travel further: on a dry day or a humid day? Why?
10. What is meant by the “sweet spot”?
11. How do scientists describe the sweetspot?
12. What is meant by momentum? How does this relate to hitting a baseball?
13. Which has greater momentum: a slow moving heavy object or a fast moving light object? Explain.
14. What does the law for “The Conservation of Matter” state? Briefly describe how this law relates to hitting the baseball.
15. What is meant by the elasticity of the ball?
16. In your own words write a brief description of something new you have learned from this research that shows a relationship between science and baseball.