

## Study Guide Chapter 17

1. What is projectile motion? Name 3 examples.
2. How do parachutes slow down skydivers?
3. What is the net force on an object as when it reaches terminal velocity?
4. What happens when a rocket engine is ignited?
5. Which of Newton's laws does it illustrate?
6. What two motions combine to form orbital motion?
7. What is momentum? How does mass effect it?
8. How does mass effect the speed of dropped objects?
9. What does an object's acceleration depend on?
10. To what kind of objects does Newton's first law apply? (Ex. Moving? etc.)
11. What did Galileo prove about falling objects?
12. What does acceleration of  $9.8 \text{ m/s/s}$  mean about an object's speed?
13. If a falling object's net force is not zero, what is it doing?
14. What factors cause the shuttle to be in orbit?
15. What is a measure of inertia?
16. Which of Newton's laws explains conservation of momentum?
17. What is the net force of unbalanced force pairs (negative, positive, zero?)
18. Which of Newton's laws are illustrated by laying in bed?
19. Do force pairs act on the same object?
20. Is motion necessary for force pairs to exist?
21. What is air resistance? What effects it?
22. Describe Newton's 3 Laws of motion:
23. How does projectile motion effect the path of an arrow or dart?
24. Are orbiting objects weightless?
25. How do the components of projectile motion effect each other?
26. What is free fall? Name 3 examples.
27. What is terminal velocity?