

Prentice Hall Conceptual Physics - Chapters 10,11,12, 20

**Due: 12/13/19**

1. **WRITE YOUR NAME**, first and last name, on top of this cover sheet.
2. **COMPLETE ALL THE WORK** as assigned.
3. **BOTH THE STUDENT AND A PARENT MUST SIGN** here before turning in the monthly work.
4. **COVER SHEET**: Put this cover sheet on top of the work when you turn it in.
5. **THE EXPECTATION IS THAT**: You will turn in your work in the order shown.
6. **TURN IN THIS WORK ON TIME** to your supervising teacher.
7. **Students must submit at least two lab works/reports for month 4.**

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Parent Signature

\_\_\_\_\_  
Date

### **Chapter 10 - Center of Gravity**

- 1) Define: center of gravity, center of mass, neutral equilibrium, stable equilibrium, and unstable equilibrium.
- 2) Chapter Review - #1-5, 7-9, 12, 15, 18-20
- 3) Think and Explain - #21-25, 29, 31-34

### **Chapter 11 - Rotational Mechanics**

- 4) Define: angular momentum, law of conservation of angular momentum, lever arm, linear momentum, rotational inertia, rotational velocity, torque.
- 5) Chapter Review - #, 1, 3, 5, 7, 8, 10, 14, 17-20
- 6) Plug and Chug - #22
- 7) Think and Explain - #23, 26, 30, 31

### **Chapter 12 - Universal Gravitation**

- 8) Define: inverse-square law, law of universal gravitation, perturbation, universal gravitational constant.
- 9) Chapter Review - #1-4, 6-12, 14
- 10) Plug and Chug - #15-17
- 11) Think and Explain - #21-24, 26-27, 29
- 12) Think and Solve - #31-33

### **Chapter 20 - Gases**

- 13) Define: barometer, Bernoulli's principle, eddy, lift, streamline
- 14) Chapter Review - #1-6, 8-10, 14-17
- 15) Think and Explain - #22-26, 28, 33
- 16) Summary of the progress you have made on your Semester Science Fair Project so far.  
(Please see the complete list of what is expected for the final turn in at the end of the first Semester, Friday, January 24, in the Cafeteria, at the Mt. Everest Website, under Staff, N. Negus: Physics.)

11/21/19 - Center of Gravity and Rotational Experiments Labs

12/5/19 - Gravitational Concepts Lab + Gases Lab