

Texts: Physics (Cutnell & Johnson) 6th Edition Due 11-17-17
Openstax College Physics for AP Courses (Free electronic version)
Edvantage Science AP Physics 1

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 below.
6. **TURN IN THIS WORK ON TIME** to your supervising teacher.
7. **Students must submit at least two lab works/report for month 3.**

Student Signature

Date

Parent Signature

Date

- 1) Cutnell Ch. 5 – **Dynamics of Uniform Circular Motion**
Conceptual (P. 142) #2, 3, 5, 9, 11, 14; Problems (P. 143) #1-3, 5, 9, 11, 27, 39, 44, 52.
- 2) Cutnell Ch. 6 – **Work and Energy**
Conceptual (P. 173) 1, 2, 8, 14, 18; Problems (P. 174) #1-3, 5, 13, 14, 18, 27-29, 32-34, 63, 64
- 3) OpenStax Ch. 6 – **Gravitation and Uniform Circular Motion**
 Problems & Exercises (P. 257) #1-4, 10, 13, 16, 21, 23, 28, 31, 44
- 4) OpenStax Ch. 7 – **Work, Energy, and Energy Resources**
 Problems & Exercises (P. 308) #1a, 2, 5, 6, 9, 27, 36, 56
- 5) Edvantage Ch. 3 – **Circular Motion and Gravity**
 P159 #3, P160 #3, P161 #6, 8, P167 #6, P168 #7, P178 #6, P183 #13, P184 #19
- 6) Edvantage Ch. 4 – **Energy**
 P197 #5, P198 #10, P. 205 #5, P206 #7, P209 #3, P223 #1, 4, P224 #6, P228 #16
- 7) **Laboratory Experiments/Exercises**
 - a) 10/26/17 - Circular Motion Lab On Wheel Sizes and Distances Traveled
 - b) 11/2/17 – Friction Lab
 - c) 11/9/17 – Centripetal Acceleration Lab
- 8) **Good progress toward your Semester Independent Science Project:**
 - a) Project idea approved by your parents and Mr. Negus (nnegus@cox.net).
 - b) Statement of the Problem the project will attempt to answer.
 - c) Hypothesis – Your guess as to what the measured values might likely show.
 - d) Materials List (Mainly the set up materials and the measurement tools).
 - e) Procedures – Clearly list the steps, in order, that you will take to set up for the Independent Variable and Dependent Variable data that will answer Step b.
[No testing should be done until we approve your project idea and procedures.]
- 9) Definitions OpenStax Ch. 6 – **Gravitation and Uniform Circular Motion**
 (P. 251) angular velocity, arc length, center of mass, centrifugal force, centripetal acceleration, centripetal force, gravitational constant G, ideal speed, Newton’s universal law of gravitation, radians, radius of curvature, rotation angle, uniform circular motion.
- 10) Definitions OpenStax Ch. 7 – **Work, Energy, and Energy Resources**
 (P. 303) conservation of mechanical energy, efficiency, energy, friction, gravitational potential energy, horsepower, joule, kinetic energy, law of conservation of energy, mechanical energy, net work, potential energy, potential energy of a spring, power, renewable forms of energy, watt, work.