

TEXT – Prentice Hall Conceptual Physics - Chapters 35, 36, 37, 38

**Due 5/15/2020**

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.
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.

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**Student Signature****Date**

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**Parent Signature****Date***I have completed the monthly work as required.**I have checked my student's work for completeness.***Chapter 35 – Electric Circuits****15%**

- 1) Define: circuit, in parallel, in series, parallel circuit, series circuit
- 2) Chapter Review #1-2, 4-15
- 3) Think and Explain #18-24
- 4) Think and Solve #31, 33

**Chapter 36- Magnetism****20%**

- 5) Define: electromagnet, magnetic domain, magnetic field, and magnetic pole
- 6) Chapter Review #1-3, 5, 7-9, 12-14, 18-20
- 7) Think and Explain #21-22, 24-25, 28-29, 31, 32
- 8) Summarize Maglev Transportation p. 569

**Chapter 37- Electromagnetic Induction****20%**

- 9) Define: electromagnetic induction, Faraday's law, generator, and transformer
- 10) Chapter Review #1-3, 7-16, 19-22
- 11) Think and Explain #23-31, 33, 34, 37, 38
- 12) Think and Solve #40-42
- 13) Summarize Metal Detectors, p. 582

**Chapter 38 – The Atom and the Quantum****15%**

- 14) Define: photoelectric effect, photon, Planck's constant, quanta (singular quantum), quantum mechanics, quantum physics
- 15) Chapter Review #1-2, 5, 7-10, 12-15, 17, 20
- 16) Think and Explain #21, 23-26, 28, 30
- 17) Draw and label Figure 38.3 and 38.4, pp. 597 and 598.

A list of recommended experiments to do on your own will be provided on the next page. **15%**  
Pick out at least two of those that you find interesting to do, and your parents give their approval for you doing those experiments at home.

A list of real inventions will be provided for you to view in a separate file. Look **15%**  
them over to fill out a chart provided that will indicate your top 10 favorites, down to your top 3 inventions, down to your top 2 inventions, to finally your favorite invention.

A list of recommended Physics experiments from our text:

Conceptual Physics by Paul Hewitt, 2006, Prentice-Hall.

Doing Physics Activity	Page 21 – Reaction Time
Doing Physics Activity	Page 94 – Skateboards and Momentum
Doing Physics Activity	Page 106 – Doing Work on Sand
Doing Physics Activity	Page 125 – Comparing Rolls
End of Chapter 10 Activity	Page 149 - #35 or #36 or #37 (Center of Gravity)
Doing Physics Activity	Page 155 – Applying Torque to a Spool
Doing Physics Activity	Page 157 – Flip Your Pencil
Doing Physics Activity	Page 177 – Illusion Check
Doing Physics Activity	Page 309 – Can You Trust Your Senses?
Doing Physics Activity	Page 316 – Brain over Brawn
Doing Physics Activity	Page 329 – Cool Hand
Doing Physics Activity	Page 331 – Blocking Infrared Radiation
Doing Physics Activity	Page 344 – You Can't See Steam
Physics in the Kitchen	Page 345 – The Egg Test
Doing Physics Activity	Page 376 – Making Waves
Doing Physics Activity	Page 395 – Water Taps
Doing Physics Activity	Page 411 – Water is Darker
Doing Physics Activity	Page 425 – Reflections
Doing Physics Activity	Page 446 – Multiplying Money
Doing Physics Activity	Page 476 – Pinhole Image
Doing Physics Activity	Page 486 – Seeing Diffraction Fringes
Doing Physics Activity	Page 493 – Swirling Colors
Doing Physics Activity	Page 513 – Charging
Physics in the Kitchen	Page 514 – Microwave Cooking
Doing Physics Activity	Page 567 – Magnetism in the Pantry