

TEXT – Prentice Hall Conceptual Physics - Chapters 31, 32, 33, 34

Due 4/17/2020

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 below**.
6. **TURN IN THIS WORK ON TIME** to your supervising teacher if possible.

Student Signature

Date

I have completed the monthly work as required.

Parent Signature

Date

I have checked my student's work to ensure it is complete.

Chapter 31 – Diffraction and Interference

25%

1) Define coherent, diffraction, incoherent, iridescence, laser, monochromatic

2) Review Questions - #2-6, 9-10, 16

3) Think and Explain - #23, 25, 26

Chapter 32 – Electrostatics

25%

4) Define charge, conductor, conservation of energy, coulomb, Coulomb's law, electrical force, electrically polarized, electrostatics, grounding, induced, induction, insulator, semiconductor, superconductor

5) Chapter Review - #1-14, 16, 17, 18-22, 25

6) Think and Explain – #26-29, 32-36

Chapter 33 - Electric Fields and Potential

25%

7) Define: capacitor, electric field, electric potential, electrical potential energy, volt, voltage

8) Chapter Review - #1-10, 13, 16, 19

9) Think and Explain - #21-22, 24-25, 30

Chapter 34- Electric Current

25%

10) Define: alternating current, ampere, diode, direct current, electric power, electric resistance, ohm, Ohm's law, potential difference, voltage source

11) Chapter Review – #1-4, 8-9, 11, 13-18, 21, 25

12) Plug and Chug - #28, 30, 32, 33

13) Think and Explain - #34-42

14) Think and Solve - #46, 48

The second page of this month's directions will have to take the place of in class demonstrations and lab work. Please view and learn from a collection of good videos from the Internet about these topics.

Second Page of the Physics Month 8 Cover Sheet

Please take some time to view these short videos and learn as you go. Some of them go faster than I like, and I have to stop them and play that part back again. You are not expected to know all the information in these videos. We hope you come to enjoy the thinking and learning that is involved. (Click on the blue print to activate these videos.)

You should try to skip the short advertisements at the start of a couple of these please.

CH 31 - Diffraction and Interference:

Light diffraction and interference are investigated as we observe light going through single and double slits. We then apply these ideas as we learn about holograms. For extra resources, teacher toolkits, and more check out our website

at: <https://www.bing.com/videos/search?q=physics+videos+diffraction+and+interference&view=detail&mid=B4C82C43E9BB3F48D06BE4C82C43E9BB3F48D06&FORM=VIRE>

CH 32 – Electrostatics:

Coulomb's Law:

<https://www.bing.com/videos/search?q=physics+electric+fields+and+potential&ru=%2fvideos%2fsearch%3fq%3dphysics%2belectric%2bfields%2band%2bpotential%26FORM%3dHDRSC3&view=detail&mid=E4ED34F0435981A9D2EAE4ED34F0435981A9D2EA&rvsmid=58CEA170ADB0D158B2ED58CEA170ADB0D158B2ED&FORM=VDRVRV>

Fun experiment with cloth and a toothbrush:

<https://www.bing.com/videos/search?q=physics+videos+elctrostatics+funny&view=detail&mid=B2CF2D19C009131982F9B2CF2D19C009131982F9&FORM=VIRE>

CH 33 – Electric Fields and Potential:

10 Ways to see an Electric Fields:

<https://www.bing.com/videos/search?q=physics+electric+fields+and+potential&ru=%2fvideos%2fsearch%3fq%3dphysics%2belectric%2bfields%2band%2bpotential%26FORM%3dHDRSC3&view=detail&mid=5BC289A1A31DF1B7099E5BC289A1A31DF1B7099E&rvsmid=B1A4FB50013337D416FFB1A4FB50013337D416FF&FORM=VDQVAP>

Electric Fields:

<https://www.bing.com/videos/search?q=physics+electric+fields+and+potential&ru=%2fvideos%2fsearch%3fq%3dphysics%2belectric%2bfields%2band%2bpotential%26FORM%3dHDRSC3&view=detail&mid=58CEA170ADB0D158B2ED58CEA170ADB0D158B2ED&&FORM=VDRVRV>

CH 34 – Electric Current:

[physics electric fields and potential - Bing video](#)