

Lesson Plans – Kovalcin
SE Physics - G201 - Pd 1 [Lab Thu]

Week
Beginning ⇨

May 18, 2009

SE Physics - Daily Activities

Content Covered - Unit Plan

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NO CLASS!

There will be no class held today due to the state required Biology Exit Exam

Proficiencies addressed:

28. Demonstrate an understanding of the wave nature of light including its ability to reflect, refract, diffract, interfere, and to be polarized. (CCCS #5.2), (CCCS#5.7)
31. Demonstrate an understanding of the conflicting evidence [Michelson-Morley Interferometer, Photoelectric Effect and Blackbody Radiation] regarding light, its interaction with the environment and the resulting wave-particle duality theory. (CCCS #5.2)

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Review: HW 9:2#14-19 Diffraction Limit
Announce: [Quiz 9:2 Wave Properties of Light](#) for Wednesday
Give: Essay "Light as a Wave"
Assign: Oral Presentations - Wave Properties of light x8 - Maximum time 5 min per presentation! We will be using the stop clock and I **WILL** stop you when the buzzer sounds! For Wednesday/Thursday! Each student will do one oral and one written report!

State Science Day Testing!
10:05-11:35 AM
G201

Written assignments: Light Waves
 HW 9:1 #1-16 Refraction of Light
 HW 9:2 #1-19 Wave Properties of Light
 1-2 Single & Double Slits 3-8 Thin Films
 9-13 Polarization 14-19 Diffraction Limit
 HW 9:3 #1-4 Interferometer
 HW 9:3 #5-15 Photoelectric Effect
 HW 9:3 #16-21 DeBroglie Matter Waves

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Review: HW 9:2#1-19 Wave Properties of Light
Give: [Quiz 9:2 Wave Properties of Light](#)
Collect, Grade & Return: HW 9:2#1-19 Wave Properties of Light
Introduce: Michelson-Morley Interferometer
Demonstrate: Michelson-Morley Interferometer
Assigned Reading: 9:10a-d Michelson Interferometer
Begin: Oral Presentations - Wave Properties of Light Lab Maximum time 5 min per presentation! We will be using the stop clock and I **WILL** stop you when the buzzer sounds! Wednesday/Thursday!
Assign: HW 9:3 #1-4 Interferometer

Assigned Reading: Light Waves
 9:10a-d Michelson Interferometer
 9:11a-d Blackbody Radiation
 9:12a-g Photoelectric Effect
 9:13a-d Light – Wave or Particle?
 9:14a-h Matter Waves – Louis de Broglie

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Double Lab - Period 2

Review: HW 9:3 #1-4 Interferometer
Introduce/Demonstrate: Black Body Radiation & Photoelectric Effect
Assigned Reading: 9:11a-d Blackbody Radiation 9:12a-g Photoelectric Effect
Complete: Oral Presentations - Wave Properties of Light Lab Maximum time 5 min per presentation! We will be using the stop clock and I **WILL** stop you when the buzzer sounds! Wednesday/Thursday!
Assign: HW 9:3 #5-15 Photoelectric Effect

Evaluations: Light as a Wave/Particle
[Quiz -9:1 Refraction of Light](#)
[Quiz 9:2 Wave Properties of Light](#)
[Quiz 9:4 Particle Properties of Light](#)

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Review: HW 9:2#9-13 Polarization
Introduce/Demonstrate: Wave-Particle Duality - Electron Diffraction
Assigned Reading: 9:13a-d Light – Wave or Particle? 9:14a-h Matter Waves – Louis de Broglie
Assign: HW 9:3 #16-21 DeBroglie Matter Waves
Announce: [Quiz 9:4 Particle Properties of Light](#) for Next Wednesday

The primary goals this week will be to:

- Complete Light as a Wave
- Develop Light as a Particle