IB Physics - cut 1 day Currents and Circuits

Chapter 18&19 Syllabus

| Block | Chapter 18&19 | Due on this class |
|---------------|--|--|
| 1 | -Batteries and electric current | Read: 18.1-4 |
| Oct 22 | -Ohm's Law (Student Lesson: 18.3) | Keau. 10.1-4 |
| OCI 22 | -Resistivity | |
| 2 | -Electric Power (Student Lesson: 18.5) | Charle(#1): 19:1 2(1 2E5 C) 5 7 12(0 47 mm) 12 |
| | -Alternating Current and RMS | Check(#1): 18:1,2(1.2E5 C), 5, 7, 12(0.47 mm), 13 |
| Oct 28 | | Read: 18.5-9 |
| | -Circuits - How to think about them | |
| | -Note guides for Series/Parallel (handout) | Y'I FI G : C' 'A |
| 3 | -Circuit Exercises (handout) | Video Flip: Series Circuits |
| Oct 30 | -Work on Circuit Ex. Page 1 and 2 and 18:40 in class | Video Flip: Parallel Circuits |
| | -Resistances in series and parallel -Resistance Networks | Check(#2): 18:26(17 Ω), 27, 41 |
| | | Read: 19.1 |
| 22/ | -Note guides for networks (handout) | h |
| 33/4 | -Electric Currents in slide projectors | Bring a ceramic mug |
| Nov 3 | -Beverages | 00000000000000000 |
| 4 | -Pre-Quiz 19.1 (simple series and parallel) | Video Flip: Reducible Networks – Single Popper |
| Nov 5 | -Work on CE #3A, and 19:1, 3 in class | Check(#3): Circuit Ex. page #1 and page #2 + |
| | -Terminal Voltage | 18:40(0.13 kg/s) |
| | -Voltages and currents in circuits | Read: 19.2 |
| 5 | -Work on CE #3B and 19:5,7 in class | Video Flip: Reducible Networks – Double Popper |
| Nov 7 | -Skill Set 19.1 | Check(#4): Circuit Exercise #3A, 3B (the first one), 19:1, 3 |
| 6 | -Pre-Quiz 18 (current, voltage, power, AC) | Video Flip: Kirchhoff's Laws |
| Nov 13 | -Spreadsheets of circuits lab Intro | Check(#5): Circuit Exercise #4A, 19:5, 7 |
| | -Work on Matrices and Kirchhoff's Laws in class | Read: 19.3 |
| | -Intro to Light bulb and Diode (handout) | |
| | -Graphing PreLab (handout) | |
| 7 | -Skill Set 18 | Video Flip: Graphing Prelab (optional) |
| Nov 17 | -Intro to Oscilloscope lab (no handout) | Check: Graphing Prelab |
| | -Intro to Resistance of a Wire lab (no handout) | Check(#5EC): CE #3A, and 19:27, 32a(.77A, .71A, |
| | -Lab Work | .055A) |
| 8 | -Pre-Quiz 19.2 (networks) | Video Flip: PQ 19.2 2 different ways (optional) |
| Nov 19 | -Lab Work | Turn In: Graphing Pre-Lab |
| 9 | -Skill Set 19.2 | Check(#6): Circuit Exercise #4B, 19:17, 20(4.55kΩ) |
| Nov 21 | -Lab Work | |
| Nov 25 | Show and Tell – Setup Presentations | |
| 10 | -Lab Work | |
| Dec 2 | | |
| 11 | -Lab Work | |
| Dec 4 | | |
| 12 | -Lab Work | |
| Dec 8 | | |
| 13 | | Turn In: Resistance of a Light bulb and Diode |
| Dec 10 | Mock IB Paper II | Turn In: Resistance of a Wire |
| | _ | Turn In: Oscilloscope Lab |
| | on Currents and Circuits | Turn In: Circuit Spreadsheet |
| | | Turn In: Homework (7 stamps) |
| | | 1 |

Assignments

- 5 Labs/Pre Lab
 - **Graphing Prelab** 0
 - Resistance of wire You design the DCP 0
 - 0 Resistance of light bulb and diode
 - Oscilloscope Lab Quick thing with the oscilloscope
 - Circuit Spreadsheet An Excel Spreadsheet that models a circuit
- 3 PreQuizzes/Skill sets
 - 18 Ohm's law, current, power 0
 - 19.1 Simple series and parallel circuits
 - 19.2 Networks of circuits
- Homework from 6 days

A Mock IB HL paper II test on the two chapters - You will need to study for this especially for the essay questions.

Handouts:

Syllabus-18-19-CurrentsAndCircuits NoteGuide-SeriesParallel Worksheet-CircuitExercises PreQuiz-18 NoteGuide-NetExamples

PreQuiz-19.1 Lab-GraphingPreLab Lab-LightBulbAndDiode PreQuiz-19.2