

Name _____

Period _____

Electric Current Contract

Homework

- ___ HW 34A: Read 34.1 - 34.5 R 3,4,11 PC 3,4,7 TS 1 (*Current, Voltage*)
- ___ HW 34B: Read 34.6, 34.7, 34.9 R 15,16,17,18,23 (*Ohm's Law*)
- ___ HW 35A: Read 35.1 - 35.4, 35.7 R 4,5,6,7,9 TE 3 (*Series & Parallel Circuits*)
- ___ Ohm's Law Practice Problem Set
- ___ A&B: Electric Circuits Problem Set
- ___ CD 34-1 Skip Problem 2 (Ohm's Law review - HIGHLY RECOMMENDED)
- ___ CD 34-2
- ___ CD 35-1
- ___ CD 35-2
- ___ **Concept Map**
- ___ **Class Notes**
- ___ **Current Events**
- ___

Labs

- ___ **Flashlight Activity**
- ___ **Ohm's Law Activity**
- ___ **Series/Parallel Lights Activity**
- ___

Self Teacher

CONTRACT GRADE _____ _____

Grade is based on a total of 12 items. **Number of items completed:** _____

Essential Questions:

What is electric current? What are the conditions that cause current to flow? What is voltage? What are some voltage sources? What are direct current and alternating current? Where do the electrons in a circuit come from? What is electrical resistance? What factors increase the resistance in a wire?

What is Ohm's Law? How is it stated mathematically? What do you know about electric shocks? Why is it dangerous to work with electricity when you are wet? What safety features are built into some appliances to prevent shocks?

What is a series circuit? What are the characteristics of a series circuit? Why are they not useful for wiring in your home? What happens to the total current when resistors are added in series?

What is a parallel circuit? What are the characteristics of a parallel circuit? Why are they useful for the wiring in your home? What is the main disadvantage to parallel circuits? What happens to the total current when resistors are added in parallel? What is electrical overloading? How does it occur? What is the purpose of fuses and circuit breakers? How and why are circuits grounded?

Things You Should be Able to Do

Use the following equations: $I = V/R$

Series: $I_{\text{batt}} = I_1 = I_2$ $V_{\text{batt}} = V_1 + V_2$

Parallel: $I_{\text{batt}} = I_1 + I_2$ $V_{\text{batt}} = V_1 = V_2$

Monday	Tuesday	Wednesday	Thursday	Friday
3/30	3/31	4/1 HW 34A	4/2	4/3 HW 34B
4/13	4/14 HW 35A	4/15	4/16 REVIEW ALL OPTIONAL WORK DUE	4/17 TEST