***Lesson Plans for the Week of: 2/27/17 Teacher: Hough Course: Physics Period: 3***

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| Elements of  a Lesson | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Objective/  Focus/  Essential  Question | PH.11b; 12a,c,e  a) Discuss Einstein video  b) understand how the factors in a series circuit are impacted by changes in voltage and/or current  c) calculate equivalent resistance for a series circuit  d) Calculate current and voltage across components in series circuit | PH.11b  a) finish lesson from previous day  b) understand how the factors in a parallel circuit are impacted by changes in voltage and/or current  c) calculate equivalent resistance for a parallel circuit | PH.11b  Wrap up loose ends from previous 2 days  Practice questions with circuits | PH.10a;11a-c;12i  Review for test | PH.10a;11a-c;12i  test |
| Lesson/Act.  Type of Presentation | whole group:  a) Review series circuit and what the class observed last week  b) use Phet simulation to confirm some observations: note how I and /\V change in series circuit  c) Define Req for any circuit  d) Model how to calculate Req for series circuit, plus resulting I and /\V  Individual:  e) Students will answer question 1 (all parts) about current, voltage, and voltage (individual and equivalent) for a series circuit | Whole group:  a)Finish any material leftover from previous lesson  b) Clarify the factors which make a parallel circuit; also, how current and voltage are affected in a parallel circuit  c) Model how to calculate Req for parallel circuit (highlight math skills)  Individual:  e) Students will answer question 1 (all parts) about current, voltage, and voltage (individual and equivalent) for a parallel circuit | Complete material from previous 2 days and additional practice as necessary | Whole group:  Go over inverse square law principles, Ohm’s Law, ciruits, and affiliated principles | Individual:  Test about Inverse square law, Ohm’s Law, and electrical circuits |
| Evaluation | Results of completed worksheet | Results of completed worksheet |  |  |  |
| Extension/  Homework | p. 638#2,3,4,6 (show work) | p. 643#4; p. 644#3-4; p. 655#18 (show work; justify) |  |  |  |

Materials:

Monday: Concept review worksheet from Holt: parallel and series Circuits; batteries, wires w/alligator clips, light bulbs, voltmeter, ammeter, whiteboard, markers

Tuesday: circuit worksheet; Phet circuit simulation <https://phet.colorado.edu/en/simulation/legacy/circuit-construction-kit-dc>

Wednesday: circuit worksheet; Phet circuit simulation <https://phet.colorado.edu/en/simulation/legacy/circuit-construction-kit-dc>; review guide

Thursday: review guide

Friday: test