***Lesson Plans for the Week of: 4/3/17 Teacher: Hough Course: Physics Period: 3***

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| Elements of  a Lesson | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Objective/  Focus/  Essential  Question | PH.9a,b;12a  apply wave speed equation to make calculations about electromagnetic (E/M) waves | PH.8b,c;9a,b;12a  Review for test | PH.8b,c;9a,b;12a  Test | PH.8c  Students will understand the meaning of a material’s index of refraction  Students will understand the two types of lenses, their parts, and apply the thin lens equation | PH.12f,j  a) calculate the number of neutrons in a given isotope  b) identify the four known forces in the universe |
| Lesson/Act.  Type of Presentation | a) review types of E/M waves and a list of applications  b) model use of wave speed equation sample p. 445#1  A) Review the particles which make up an atom, particularly the fact that protons and neutrons are quarks and that electrons are elementary particles  B) Review the definition of isotope and the notation used to identify different isotopes, plus protons, neutrons, and electrons  classswork: p. 445 #2-6 | Review for test | Test  Define Terms: refraction, index of refraction | a) explain refraction and index of refraction; compare index of refraction for air, water, diamond (refer to p. 484 chart)  b) lenses refract light; define converging and diverging lenses; position of image can be predicted using thin lens equation (emphasize importance of negatives and positives—table in textbook outlines this)  c) model use of thin lens equation, with magnification | a) Review the definition of isotope and the notation used to identify different isotopes, plus protons, neutrons, and electrons  b) label the forces (interactions) which occur in an atom; focus on their ranges and relative strengths |
| Evaluation | Accuracy of classwork |  |  |  | Formative assessment: calculate the number of neutrons in given isotopes |
| Extension/  Homework |  |  |  | Homework: p. 495#2-4 |  |
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Materials:

Monday: Teacher-made notes; sound meter; multiple tuning forks

Tuesday: concave and convex mirrors

Wednesday:

Thursday: refraction tank; converging and diverging lenses

Friday: