***Lesson Plans for the Week of: 1/16/17 Teacher: Hough Course: Physics Period: 3***

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| Elements ofa Lesson | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Objective/Focus/Essential Question | No School | PH.2a,6a,7aApply Conservation of Mechanical Energy (CME) | PH.2a;5gApply the concept of Work | PH.2a;5g;6aUnderstand the Work-Kinetic Energy Theorem and apply it in appropriate word problems | PH.2a;5g--Define Power and know its units--use Power in word problems |
| Lesson/Act.Type of Presentation |  | Continued from previous dayStudents will complete CME Individual:Students will use textbook to define the science concept of work and describe necessary conditions for work to be done; work equation and units | Whole group:Review the concept of work from previous day’s research, and then address the concept of positive and negative work; use textbook p. 156 Figure 1.3 as a graphic model, promptModel Sample problem p. 156#3Review concepts of kinetic and potential energies | Whole group:Have students hypothesize reasons why work and energy have the same unitsReview work and kinetic energyNote that the change in kinetic energy equals net work Describe the Work-kinetic energy theorem; emphasize the importance of the angle—often it is zero, but students will have to state so when they are solving the problemsModel Sample problem p. 162 #1Individual:CW: do worksheet containing an adapted version of textbook p. 162 problem #3 where the net force is given as 3046 N and the driveway is flat | Individual:Students will look up the definition, equations and SI units for power in the textbook p. 173-174 and write them in their notesWhole group:Explain power and give example of how work and force can be the same in two situations, but power is differentSample: problem on p. 175#2Individual:Independent practice using the power equations |
| Evaluation |  | Same as previous day | Results of Student practice | p. 162 # 2,4 due tomorrow, but grade is included with the next day’s homework due to the low number of questions |  |
| Extension/Homework |  |  | p. 156#1,2; 180#8,10a |  | p. 175#1,2,5 all with scaffolding: in vertical movement, the force is the weight of the object; also be willing to use the equations of motion to find acceleration and displacementextension: Adapt subsequent power lesson to include movement of water, per FA request |

Materials:

Monday:

Tuesday: :

Wednesday:

Thursday: practice questions for WKE Theorem

Friday: Will need power/water questions for Monday