***Lesson Plans for the Week of: 8/28/17 Teacher: Hough Course: Chemistry Period: 9***

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| Elements of  a Lesson | **Monday** | **Tuesday** | **Wednesday** | **Thursday** | **Friday** |
| Objective/  Focus/  Essential  Question | CH.1a,b,f,g,i  --correctly measure the volume of a liquid, to the degree of precision appropriate to the measuring instrument | Chemistry Pre-assessment | CH.1a,b,c  cm3 vs mL lab | CH.1e,f,i  --Review importance of repeated trials and use of mean  --Recognize the difference between accuracy and precision  --correctly apply relative error equation | CH.1.b,g  --Write measurements using the correct number of significant figures  --Correctly count the number of significant figures in a measurement (without the measuring instrument) |
| Lesson/Act.  Type of Presentation | Whole group  Go over test from last week  Remind group how to measure a liquid  Small groups:  Groups given beaker containing water and graduated cylinder containing same amount of water. Have them write the volume of water in the container.  Discuss why the degree of precision is important when measuring liquid and is written differently when different containers are used (same skill is used to measure length) | Whole group  Administer teacher-adapted chemistry pre-assessment via IA | Teacher-assigned small group  Volume Units Activity: Modeling Unit1 part 4  Where students calculate the volumes of various containers and measure the volume of water that each of the containers hold (repeat measurements, calculate mean), then write the results on a class-wide mL of liquid vs cm3 of space graph (for future reference), present those results, and draw conclusions from the graphs | Whole group:  Teacher explains how to graph data from Friday’s lab and how to find the line of best fit  Small groups:  Student lab groups will complete calculations and graphs, then present their results  Discuss sources of error—bring up repeated trials, if the students don’t  How many decimal places should have been used?  Whole group  Discuss previous day’s activity:  2) Note the difference between the accepted value and their calculated values; note differences between different groups who had the same type of container; Define accuracy and precision  3) Teach the error analysis equation  a) Practice on their activity | Whole group  Bellwork: Utilize worksheet U1ws2 from Chemistry modeling to begin today’s concept of counting significant figures  (and review how to read measurements)  Define the concept of significant figures  Explain how to count the number of significant figures in a given number (Refer to textbook p. 67);  Individual practice  Practice with sample values |
| Evaluation |  |  | Group presentations; Student graphs, including correct use of .0 for measurements which are on the whole number |  | p. 68 #4-5 |
| Extension/  Homework |  |  | Subsequent discussion | Page 95 #56 |  |

MATERIALS:

Monday:

Tuesday:

Wednesday:

Thursday:

Friday: materials: