STEM Growth Plan

**Team Name:** Clintondale High School: Dragon Warriors  
**Start Date:** March 09, 2015  
**End Date:** June 11, 2015  
**Vision:** Collaborate with the day school teacher to assist students in becoming proficient in Geometry by learning more about Tessellations.

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| Students will become familiar with Tessellations by making use of Polygons | 1) Place students in groups  
   2) Distribute Attribute blocks  
   3) Explain Tessellations  
   4) Model  
   5) Ask students to create | Students will be able to create their own tessellations and present their final project to the class. | 3/2/2015-3/9/2015      | Day school Math Teacher: Mr. Batanjski  
   After school Coordinator: Mrs. Hall | Math Standards:  
   - Geometry  
   - Operations and Algebraic Thinking  
   - Measurement Data |
| Students will incorporate the use of Technology by creating Tessellations with basic CAD software and polygons | 1) Groups will remain the same  
   2) Groups will take their journal/log book to computer lab to assist in designing  
   3) Model with students on how to use CAD software  
   4) Ask students to create | Students will create their tessellations by making use of technology (CAD Software) | 3/16/2015-4/13/2015   | Day school Math Teacher: Mr. Batanjski  
   After school Coordinator: Mrs. Hall | Math Standards:  
   - Geometry  
   - Operations and Algebraic Thinking  
   - Measurement Data |
| Students will become familiar with how to safely and effectively use the 3D-Printer in order to create their own tessellations base3d off of their groups original | 1) Have student groups sit in their assigned area  
   2) Students will be instructed on how to use the 3D-Printer | Students will be able to make use of the 3D - Printer by printing out a polygon | 4/20-5/18             | Day school Math Teacher: Mr. Batanjski  
   After school Coordinator: Mrs. Hall | Math Standards:  
   - Geometry  
   - Operations and Algebraic Thinking  
   - Measurement Data |
| Design | 3) Student groups will begin to utilize printers |  | 5/25 – 6/1 | Math Standards:  
- Geometry  
- Operations and Algebraic Thinking  
- Measurement Data |
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<td>Art Standard: Students will begin to prepare for their art show</td>
<td>1) Students will begin to compile their tessellations from their journal/log to first tessellation (hand drawn) to CAD design – to 3D Printer Design; which will be displayed in an end of the year Art Show</td>
<td>Students will be able to explain to their audience what at tessellation is and what shapes and/or designs they used. They should also be able to explain and display their CAD designs as well as their 3D Printer designs.</td>
<td>Day school Math Teacher: Mr. Batanjski After school Coordinator: Mrs. Hall</td>
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STEM Growth Plan

Team Name: Warren Mott
Start Date: 02/23/2015
End Date: 06/11/2015

Vision: Create a shared learning experience that builds skill and confidence in science and math.

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<td>Chemical Reactions (Chemistry) -Differentiate between 5 types of Chemical Reactions -Create/model and provide example of each.</td>
<td>In Class~ -Introduce Chemical Reactions C2~ -Labs -compare, analyze, and record chemical reactions by combining various materials.</td>
<td>In class~ -Written tests, quizzes, and lab assignments. C2~ -Experiments and reflections</td>
<td>02/23/2015</td>
<td>Oldenhouse &amp; Christenson</td>
<td>-Critical thinking -Designing a chemical system -Explain outcomes -Teambuilding -Cooperative learning</td>
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<td>Balancing Chemical Equations using Mathematical Representation (Chemistry)</td>
<td>In class~ -step-by-step procedure C2~ -Games -Practical Application</td>
<td>In class~ -Written tests, quizzes, and lab assignments. C2~ -Experiments and reflections</td>
<td>03/05/2015</td>
<td>Oldenhouse &amp; Christenson</td>
<td>-Critical thinking -Using math &amp; computational thinking to support conservation of mass.</td>
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<td>Stoichiometry -Converting everyday calculations into chemistry equations</td>
<td>In class~ -Define Stoichiometry C2~ -Practical Application</td>
<td>In class~ -Written tests, quizzes, and lab assignments. C2~ Experiments and reflections</td>
<td>03/19/2015</td>
<td>Oldenhouse &amp; Christenson</td>
<td>Critical thinking -Using math &amp; computational thinking to build</td>
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