**Connecticut Core Curriculum for High Schools - Geometry**

**Professional Development Plan**

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| **Unit 4 Similarity and Trigonometry** | | |
| **Date:** | **Location:** | |
| **Presenters:** | | |
| **Schedule for the day: (3 hours suggested)**  **Start time:**  **End time:**  Opening session (20 minutes)  Break (5 minutes)  Rotation of three workshops (120 minutes total)  Break (5 minutes)  Closing session (30 minutes) | | |
| **Opening Session**  Check-in: How are things going? What are your major concerns?  Overview of Unit 4  **Equipment and Materials:**  Unit4\_PD\_overview\_v3.pptx  Geometry\_Unit4\_plan\_v3.docx | | |
| **Workshop 1** | | **Presenter:**  **Room** |
| **Activities**  Activity 4.1.1. Properties of Dilations  Activity 4.1.2 Dilation GeoGebra Investigation | | **Equipment and Materials:**  Pencil and paper  Compass and Straightedge  Computers with GeoGebra |
| **Workshop 2** | | **Presenter:**  **Room** |
| **Activities**  Activity 4.3.1 Triangle Similarity Conjectures  Activity 4.3.2 AA and SAS Similarity Theorems  Activity 4.5.2a and Activity 4.5.2b Proving the Right Triangle Similarity Theorem | | **Equipment and Materials**  Pencil and Paper  Protractor and Ruler  Zip lock bag with pre-made sticks of given lengths |
| **Workshop 3** | | **Presenter:**  **Room** |
| **Activities**  Activity 4.6.1Ratios in Right Triangles Activity 4.7.2 Special Right Triangles Discovery | | **Equipment and Materials**  Computer with GeoGebra  GeoGebra File: Unit 4\_ActivityGGB\_4\_6\_1.ggb  Scientific or graphing calculators (for values of trigonometric functions |
| **Closing Session**  Discuss formative assessment using the exit slips and journal entries from this unit.  Describe the performance task and demonstrate the use of a clinometer  Have participants discuss the reflective questions.  **Equipment and Materials:**  Unit4\_PD\_overview\_v3.pptx  Unit 4 Performance Task  Clinometer (made with straw, string, protractor, and weight. Instructions in Activity 4.8.1) | | |
| **Additional Comments**  Participants in the workshops will use a variety of tools. In addition be sure to highlight the progression from dilations to similarity transformations to theorems about similar triangles and then to the trigonometric ratios. | | |