**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.pptxGeometry\_Unit4\_plan\_v3.docx |
| **Workshop 1** | **Presenter:** **Room**  |
| **Activities**Activity 4.1.1. Properties of DilationsActivity 4.1.2 Dilation GeoGebra Investigation | **Equipment and Materials:**Pencil and paperCompass and StraightedgeComputers with GeoGebra |
| **Workshop 2** | **Presenter:** **Room**  |
| **Activities**Activity 4.3.1 Triangle Similarity ConjecturesActivity 4.3.2 AA and SAS Similarity TheoremsActivity 4.5.2a and Activity 4.5.2b Proving the Right Triangle Similarity Theorem | **Equipment and Materials**Pencil and Paper Protractor and RulerZip lock bag with pre-made sticks of given lengths |
| **Workshop 3** | **Presenter:** **Room**  |
| **Activities**Activity 4.6.1Ratios in Right TrianglesActivity 4.7.2 Special Right Triangles Discovery | **Equipment and Materials**Computer with GeoGebraGeoGebra 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 clinometerHave participants discuss the reflective questions.**Equipment and Materials:**Unit4\_PD\_overview\_v3.pptxUnit 4 Performance TaskClinometer (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.  |