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

**Professional Development Plan**

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| **Unit 2: Congruence, Constructions, and Proof** | | |
| **Date:** | **Location:** | |
| **Presenters:** | | |
| **Schedule for the day: (3 hours suggested)**  **Start time:**  **End time:**  Overview of Unit 2 (20 minutes)  Discussion about Role of Proof (15 minutes)  Break (5 minutes)  Workshops (Three Workshops, total 120 minutes)  Break (5 minutes)  Closing Session (15 minutes) | | |
| **Opening Session**  Overview of Unit 2  Discussion about Role of Proof  **Equipment and Materials:**  Unit2\_PD\_overview\_v3.pptx  Geom\_Unit2\_plan\_v3.docx | | |
| **Workshop 1** | | **Presenter:**  **Room** |
| **Activities**  Activity 2.2.1 SAS Congruence  Activity 2.2.3 ASA Congruence  Activity 2.2.5 Posing Problems with Congruent Triangles | | **Equipment and Materials:**  Power point: Unit2\_Investigation2.pptx  Paper and pencil |
| **Workshop 2** | | **Presenter:**  **Room** |
| **Activities**  Activity 2.4.4 Rigid Structures | | **Equipment and Materials**  Tape and straws or toothpicks and mini-marshmallows |
| **Workshop 3** | | **Presenter:**  **Room** |
| **Activities**  Activity 2.6.1a and 2.6.1b Euclidean Constructions  Activity 2.6.2a and 2.6.2b Constructing an Equilateral Triangle | | **Equipment and Materials**  Compass  Straightedge  Computers with GeoGebra  ctcoregeomACT262.gbb |
| **Closing Session** Briefly show the end of unit assessment and the performance task.  Solicit Feedback from participants.  **Equipment and Materials:**  Overhead projection to show End-of-Unit Assessment and Performance Task | | |
| **Additional Comments:** Elicit teacher opinions about the role of proof in a geometry course in the initial discussion. The first workshop introduces them to two transformational proofs and illustrates a group activity in which students pose problems for proof and check each others’ solutions. The second workshop illustrates an important property of triangles: their rigidity, a consequence of the SSS Congruence Theorem. The third workshop involves Euclidean constructions and pairs of alternative activities (one with physical tools, one with software.)  If this session is given the same day as the opening session, this is a good time to solicit feedback from the participants. One way to do this is to give them red, yellow, and green sticky notes. On the green note they indicate something they really like or are excited about. On the yellow note they indicate a question, something they are unsure of. On the red note they express and concerns or discomfort they have with the curriculum. Before leaving have participants post these in three different locations on a wall. Presenters gather the sticky notes and summarize them so they can give feedback to the group at the next session. | | |