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

**Professional Development Plan**

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| **Unit 3 Polygons** | | |
| **Date:** | **Location:** | |
| **Presenters:** | | |
| **Schedule for the day: (3 hours suggested)**  **Start time:**  **End time:**  Feedback from previous workshops (10 minutes)  Introduction to Unit 3 (10 minutes)  Discussion (small groups/whole group) (10 minutes)  Break (5 minutes)  Workshops: (Three workshops, total 120 minutes)  Break (5 minutes)  Closing session (20 minutes) | | |
| **Opening Session**   * If this is part of a sequential series of workshops, presenters should take some time to respond to feedback received on Units 1 and 2, voicing major concerns of the participants. * Introduce Unit 3 (with Power Point) * Questions for Discussion (from Power Point)   We suggest you have teachers meet in small groups during the opening session to discuss these questions for about 5 to 10 minutes. We’ll return to this topic in the closing session.  **Equipment and Materials:**  Unit3\_PD\_overview\_v3.pptx.  Geom\_Unit3\_plan\_v3.docx | | |
| **Workshop 1** | | **Presenter:**  **Room** |
| **Activities**  Activity 3.2.3 Sides and Angles in Triangles  Activity 3.3.2 Parallel Lines Corresponding Angles Converse  Activity 3.3.5. Proof with Parallel Lines | | **Equipment and Materials:**  Unit3\_PD\_Workshop1\_v3.pptx  Paper and pencil |
| **Workshop 2** | | **Presenter:**  **Room** |
| **Activities**  Activity 3.3.4a and 3.3.4b Constructing Parallel Lines  Activity 3.4.4 Constructing Regular Polygons with compass and straightedge  Activity 3.4.6 Lines of Symmetry in Regular Polygons | | **Equipment and Materials**  Unit3\_PD\_Workshop2\_v3.pptx  Compass and straightedge |
| **Workshop 3** | | **Presenter:**  **Room** |
| **Activities**  Activity 3.5.2.b Diagonals of Quadrilaterals with GeoGebra.  Activity 3.6.3 Quadrilaterals in Standard Position | | **Equipment and Materials**  Unit3\_PD\_Workshop3\_v3.pptx  Computer with GeoGebra  GeoGebra files for the 8 quadrilaterals\* |
| **Closing Session**  Share End-of-Unit Assessment via projection onto the screen, one page at a time. (No hard copies of secure materials should be distributed.) Have participants discuss how well these items are aligned with the objectives and activities of the unit. Give participants a partially filled in alignment chart and have them classify each item as you go through the assessment.  **Equipment and Materials:**  Unit3\_End\_of\_Unit\_Assessment\_v3.docx for projection onto the screen.  Unit3\_Assessment\_Check\_List\_PD\_v3.docx. Copy onto two separate pages and hand out to participants. | | |
| **Additional Comments**  Each workshop spans two investigations and focuses on different aspects of the course. The focus in the first workshop is on proof, the second uses compass and straightedge for constructions and the third uses GeoGebra.  Although we cannot give teachers hard copies of the End-of-Unit Assessment, by projecting it onto the screen and asking them to categorize the test items, they will gain some familiarity with the nature of the assessments. | | |

\*The GeoGebra files for Activity 3.5.2b are:

Isosceles Trapezoid with Diagonals.ggb

Kite with Diagonals.ggb

Parallelogram with Diagonals.ggb

Quadrilateral with Diagonals.ggb

Rectangle with Diagonals.ggb

Rhombus with Diagonals.ggb

Square with Diagonals.ggb  
Trapezoid with Diagonals.ggb

All of these are online at [www.geogebratube.com](http://www.geogebratube.com). Search for Activity 5.3.2 Diagonals.