



**Daily Instructional Lesson Plan Worcester County Public Schools**

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| Content Area(s)/Course/Grade:<br>Mathematics/Geometry/ 9-12         | Unit:Chapter 3: <u>Discovering Geometry</u><br>Using Tools of Geometry |
| Lesson Topic: Lessons 3.7-3.8<br>Constructing Points of Concurrency | Date: September 27, 2005<br>Salisbury University/ Math 590             |
| Teacher: Ken Watson   | School: Snow Hill High School  |

Indicator(s)/Sub-Outcome(s)/Expectation(s):

Core Learning Goal 2: The student will demonstrate the ability to solve mathematical and real-world problems using measurement and geometric models and will justify solutions and explain processes used.

2.1: The student will represent and analyze two- and three-dimensional figures using tools and technology when appropriate.

2.1.4: The student will construct and/or draw and/or validate properties of geometric figures using appropriate tools and technology.

Student Outcome(s):

- \*Students will construct points of concurrency (centroid, incenter, circumcenter, orthocenter), for triangles using technology (Geometer's Sketchpad) and tools of geometry (compass and straight edge).
- \* Students will solve real world problems using points of concurrency.

**Context for Learning**

Students have previously learned (Chapter 3: Lessons 3.1-3.7) how to construct angle bisectors, perpendicular bisectors, altitudes and medians which are required to construct points of concurrency.

**Instructional Delivery**

Opening Activity/Motivation:

Students will be given a warm up (handout) whereby they will try to discover the best location equidistant from three locations. They will work cooperatively in small groups. Groups will be given a compass and ruler.

Student answers and methods for determining those answers will be discussed. A transparency of the problem will be used on the overhead projector to review answers and methods used.

Teacher will tell students that a construction exists to find the best location without trial and error or guessing, and that construction and others will be discovered in today's lesson.