

I. Curriculum Area

Mathematics

II. Courses

5140 Secondary Math II
5141 Secondary Math II Honors
5142 Secondary Math II Honors - Accelerated

III. Goal Summary Statement

Students will demonstrate learning from a pre to a post assessment in a chosen domain using at least one of the eight Mathematical Practice Standards

IV. Full Goal Description

The teacher will identify a low scoring domain from pre-assessment data. Looking at the standards within the domain, the teacher will incorporate good teaching strategies to teach, reteach and extend learning throughout the year.

Student growth will be measured by using a pre and post assessment with equal rigor and Depth of Knowledge levels.

Teachers must incorporate one or more of the 8 Mathematical Practice Standards as it applies to the chosen domain.

V. Connection to DESK Standards

*Teachers will select a domain from the DESK Standards.

Number and Quantity

- A. The Real Number System
- B. Number and Quantity – The Complex Number System

Algebra

- A. Seeing Structure in Expression
- B. Arithmetic with Polynomials and Rational Expressions
- C. Reasoning with Equations and Inequalities

Functions

- A. Building Functions
- B. Linear, Quadratic and Exponential Models
- C. Interpret Functions
- D. Trigonometric Functions

Geometry

- A. Congruence
- B. Similarity, Right Triangles, and Trigonometry
- C. Circles

- D. Expressing Geometric Properties with Equations
- E. Geometric Measurement and Dimension

Statistics

- A. Interpreting Categorical and Quantitative Data
- B. Conditional Probability and the Rules of Probability

*In the action plan, teachers will indicate how the Mathematical Practice Standards will be used to facilitate the goal.

Step 1	Step 2	Step 3
Choose a Domain	Choose a Fundamental Concept from DESK	Choose one or more Mathematical Practice Standards

Examples:

Domain Example	Fundamental Concept from DESK	Mathematical Practice Standard
Geometry – Circles	3. Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.	4. Model with mathematics. 5. Use appropriate tools strategically.
Number and Quantity – The Complex Number System	1. Know there is a complex number i such that $i^2 = -1$, and every complex number has the form $a + bi$ with a and b real.	1. Make sense of problems and persevere in solving them. 7. Look for and make use of structure.
Functions – Linear, Quadratic, and Exponential Models	1. Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function. Compare linear and exponential growth to quadratic growth.	3. Construct viable arguments and critique the reasoning of others. 6. Attend to precision.

VI. Assessment Tool/Rubric/Evidence

Teachers will use or create quality pre and post assessment to show evidence of student growth. Questions in the assessments should isolate and focus on each fundamental mathematical standard listed in the action plan with equal rigor and Depth of Knowledge levels. Teachers are highly encouraged to use traditional assessment methods coupled with a project-based assessment (rubric, a collection of student artifacts, portfolios, etc.) so that all aspects of student growth can be captured.