<table>
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<th>Goal Setting Conference</th>
<th>SLG GOAL 1</th>
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| **Content Standards/Skills** | **F.IF.1** Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If \( f \) is a function and \( x \) is an element of its domain, then \( f(x) \) denotes the output of \( f \) corresponding to the input \( x \). The graph of \( f \) is the graph of the equation \( y = f(x) \).  
**F.IF.4** For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*  
**F.IF.7** Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. |
| **Assessments** | **Category 2** – district developed common assessment |
| **Goal-Setting Conference** |  
**Context/Students**  
College Algebra is a semester long college-level course that meets for 63 minutes per day. The course ends in January. At that point Trigonometry, another college level course, begins. It is a course for Juniors and Seniors who have successfully completed Algebra 2.  
Students who are enrolled in College Algebra earn HS credit and have the option to enroll through Chemeketa Community College for college credit. |
| **Baseline Data** |  
The fall 2014 pretest assessment scores were evaluated to yield the following results in the area of functions (based on a 4 point rubric):  
**F.IF.1** – 50 students scored a 1, 18 scored a 2  
**F.IF.4** – 68 (all students) scored a 1  
**F.IF.7** - 68 (all students) scored a 1 |
| **Student Growth Goal (Targets)** |  
For the 2014-15 school year, 100% of students will make measureable progress toward understanding the concept of a function, analyzing a function for its features, and distinguishing between the types of basic function families.  
Specifically, a student with 1s in all categories (no real initial knowledge of functions) |
will improve by at least two performance levels in two of the dimensions, and become at least a 2 (nearly meets) in the other dimension (defining a function, analyzing its features, comparing the basic 12 function types). Students who scored a 2 will also grow by at least 1 performance level (meets).

**Rationale**

College Algebra is the study of functions. Toward the beginning of the course we focus on the term “function” and analyze various functions for their properties. The rest of the course entails students studying function families one-by-one in more depth. So, to be successful for the rest of the course, students need to establish a solid foundation of knowledge regarding what a function is, how to analyze its features, and how to distinguish one function family from another using the key features of its graph.

Furthermore, the majority of the material in this unit on functions will be brand new to students. Since it is an expectation for them to know this material on the Smarter Balanced test, using this as the basis for my goal will doubly help students (throughout the rest of the course and on standardized tests).

Even though students covered by this SLG had no previous knowledge of functions, as exhibited by their pretest scores, I feel they should be able to raise their level of knowledge to a 3 (meets) for at least two of the standards. This is a college-level class and they are diligent and motivated students.

**Strategies**

- Analysis of pre-test data with peers (I hope to analyze post-test data with peers as well)
- Modeling a variety of note-taking strategies for students
- Repeated practice with daily work assignments
- Practice through “mathercises”, dry erase board games, clicker activities, graphing calculator explorations
- Self-assessment using the practice test

**Professional Learning and Support**

- PLC time to discuss data and ideas with colleagues
- NW math conference
- Monthly district Leadership Academy meetings