Foundations of Algebra Pacing Guide

**Rationale**:

*Students will take pre-assessments to identify areas of strength and need.* *Students in this course will participate in three stages of learning: concrete (hands on), algorithmic (procedural), and application (real life) to develop foundational algebra skills including number sense, simplifying expressions, solving equations and inequalities, modeling functions & linear equations.* **This course is an elective credit and does not count towards the four math credits required for graduation.**

**Intended course participants:**

*This course is designed for students with a pattern of deficiency in math as identified by examining test history, soliciting teacher input, and considering specific learning disabilities.*

**Purpose:**

*The purpose of Foundations of Algebra is to provide students with experiences that enhance students’ strengths and prepare them for success in Algebra1.*

**Pre-Assessment, Mid-term Assessment, and Post-Assessment**:

*Teachers will use the assessments (or modification of) provided with the Algebra Readiness curriculum materials. These are for diagnostic purposes.*

*Midterms or final exams should be a separate assessment.*

**Units & Resources:**

***Unit Topics*** *will follow the Algebra Readiness curriculum as: Number Sense & Operations; Algebraic Expressions & Integers; Linear Equations; Probability, Percents, Proportions; Graphing; Inequalities & Systems; Symbolic Notation*

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| **Days required** | **Unit of Active Algebra Readiness** |
| 8-12 days | Unit 1: Number Sense |
| 14-17 | Unit 2: Algebraic Expressions & Integers |
| 12-13 | Unit 3: Linear Equations |
| 9 - 11 | Unit 4: Probability, Percent, Proportion |
| 22-26 | Unit 5: Graphing  – *add in basic transformations & solving for y* |
| 3-6 days | Unit 6: Inequalities  – *no compound & absolute value*  *Keep systems if time allows* |
| 6-8 | Unit 7: Symbolic Representation  - *Exponents & distributive property reversibility*  *Skip square roots & rational expressions* |

***Resources:***

*This course outline references* ***Algebra Readiness curriculum set****. Use the Teacher Resource Guide & the CD found at the back of the teacher resource guide! The CD has quizzes, power points, ready for you to use.*

*Online resources:*

[http://www.education.com/activity/middle-school+high-school/math/](http://mail.onslow.k12.nc.us/exchweb/bin/redir.asp?URL=http://www.education.com/activity/middle-school%2Bhigh-school/math/)

The website above has hands on activities for Measurement, Fractions, Decimals, Graphing and Data, Probability and Statistics, Algebra and Functions.

[https://wikis.uit.tufts.edu/confluence/display/EarlyAlgebraResources/](http://mail.onslow.k12.nc.us/exchweb/bin/redir.asp?URL=https://wikis.uit.tufts.edu/confluence/display/EarlyAlgebraResources/)

Welcome to the Early Algebra Teacher Resources Site. This site collects different kinds of information that teachers may find useful as they begin to think about implementing early algebra activities in their classrooms:

1.     Implementations carried out by other teachers

2.     Classroom activities with detailed lesson plans, handouts, and overheads

3.     Our project videos, illustrating some of the activities described on this site

[http://www.ilovemath.org/index.php?option=com\_docman&Itemid=31](http://mail.onslow.k12.nc.us/exchweb/bin/redir.asp?URL=http://www.ilovemath.org/index.php?option=com_docman%26Itemid=31)

The website above has hands on activities for Algebra and Geometry.  The website is organized by topic.

***Other Suggestions***:

Avoid using the graphing calculator until reaching unit 5. This is in order to provide time & motivation to develop skill with basic operations.