Eighth Grade Pre-Algebra Syllabus
2011 – 2012

Instructor
Mrs. Melissa Stirling
School Phone: 481-1111 x203
Email: mstirling@hollandhall.org
Homework Page: http://go.hollandhall.org/8thgrade

Course Description
The goal of this course is to develop fluency with rational numbers and proportional relationships. Students will extend their elementary skills and begin to learn algebra concepts that serve as a transition into formal Algebra and Geometry. Students will learn to think flexibly about relationships among fractions, decimals, and percents. Students will learn to recognize and generate equivalent expressions and solve single-variable equations and inequalities. Students will investigate and explore mathematical ideas and develop multiple strategies for analyzing complex situations. Students will analyze situations verbally, numerically, graphically, and symbolically. Students will apply mathematical skills and make meaningful connections to life's experiences.

Three essential mathematical ideas, based on NCTM curriculum focal points, form the foundation of this course. These ideas are proportionality, surface area and volume of 3-dimensional shapes, and operations and equations with rational numbers. Activities and inquiry are designed to develop student understandings.

Course Assessment Benchmarks
Develop mathematical reasoning to support skill development and conceptual understanding
Exhibit persistence, flexibility, and appropriate independence when solving problems
Organize mathematical thinking by following logical steps and proper technique
Compute fluently with rational numbers in all forms

Methods of Instruction
Classroom activities involve students in performance tasks designed to lead to understandings. Teaching approaches include modeling, lecture, class discussion, multi-media presentations, written assignments, small group work, games, and activities with manipulatives. Lessons include visual, auditory, and kinesthetic components whenever possible. Students are encouraged to work together and to discuss their thinking. Individualized instruction is offered as appropriate.

Course Materials
Required textbook: Algebra Readiness (Prentice Hall) & workbook
composition book/spiral notebook and binder
graph paper
2 sharpened pencils, pen and eraser
graphing calculator

Assessments
Students will demonstrate understanding with various kinds of performance tasks. Students will be assessed quarterly on progress based on benchmarks outlined above. Forms of assessment include daily homework, class work, projects, skill checks, quizzes and tests. Students will keep a portfolio of work to use as a resource; portfolio work will also support self-reflection.