Dickson Middle School

2013-2014 Syllabus for 8th Grade Honors Algebra

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**COURSE OUTCOME**

**Course Description:** The objective of the Honors Algebra I course is to gain a useable knowledge of linear, exponential, and quadratic equations. Our goal for all 8th graders enrolled in this course is to successfully score Advanced on the Algebra I End of Course exam. This exam is given by the state of Tennessee to measure student knowledge of the curriculum.

\*To access the state standards: <http://www.tn.gov/education/ci/math/index.shtml>; <http://tncore.org>

**INSTRUCTION**

**Curriculum:**

In 8th grade Honors Algebra we will be covering 11 major components. Below are the 11 units of study that we will focus on during this school year.

- Representing Relationships Mathematically & Representing Functions - Linear Functions

- Linear Equations & Inequalities - Systems of Linear Equations & Inequalities

- Exponents & Exponential Functions - Polynomial Expressions & Functions

- Quadratic Functions - Quadratic Equations

- Radical Expressions & Functions - Rational Expressions

- Probability & Statistics

**Common Core Standards:**

The Common Core State Standards are a set of standards for math that were developed by state leaders to ensure that every student graduates high school prepared for college or the workforce. The standards are designed to set clear expectations of what students should know in each grade and subject. They reflect rigorous learning benchmarks when compared to countries whose students currently outperform American students on international assessments. Common Core requires a deeper engagement with a smaller number of standards than what the state currently requires. These standards will require new approaches to teaching, and students should expect enhanced rigor in their course. Specifically, students will be required to master more critical thinking and problem-solving skills.

*Source: Adapted from TN Core and the Department of Education*

Website: [www.tncore.org](http://www.tncore.org)

Common Core State Standards has a free application that can be downloaded to an iPad, iPhone or iPod to allow research and a better understanding of these new standards (very cool!!).

**Materials Needed:**

Daily materials will include a composition book (Graph paper composition books are recommended and available at office supply stores.), yellow pocket folder, pencils, paper, and post-its. Occasionally, I will ask students to bring other items from the team supply list.

A TI-73 calculator will be used daily. Students are encouraged to purchase their own as this will be a tool they will use through high school and college. I would recommend purchasing at least a TI-83. Additionally, a link is available on my website that will allow a download of a graphing calculator to your home computer. Currently, it does not appear Mac devices are supported.

**Resources:**

* Textbook: *Holt McDougal Larson Algebra I*

[www.classzone.com](http://www.classzone.com) choose your state and subject (high school math), choose your textbook, Algebra I. Create a username and password with the log in information that is provided by your teacher.

* Worksheets, handouts, websites, video clips, etc will be used throughout the year.

**Assessment:**

* Expectations – All assignments, activities, and assessments will build upon each other. Homework is practice for quizzes which are practices for exams. Students are to use each as a learning opportunity to prepare for the final End of Course Exam (EOC).
* Grades will be calculated using the following:

50% Tests

30% Quizzes

20% Homework/Classwork

* The State of Tennessee End of Course Test will count 25% of the student’s **final** grade in Algebra. Upon successful completion of Honors Algebra I, each student will earn one high school math credit and the Algebra grade will be factored into the student’s high school GPA. The student will still need to earn four additional math credits in high school to meet the state standards for graduation.

**General Expectations:**

* Students:
* Work must be completed in **PENCIL** only, unless a student is doing a Re-do correction, which is to be done in red pen.
* Students are to **SHOW ALL WORK**. If a student writes only an answer, no credit will be received.
* **EVERY** problem on an assignment **must** be attempted. Students who leave problems blank or un-attempted will not receive credit for completing the assignment.
* Assignments are expected to be completed by the specified class period.
* **IMPORTANT** – This is an HONORS high school course. The pacing and rigor is beyond any class students have experienced in the past. It is very easy for a student to fall behind. Students need to be present in class, take notes, do their homework and ask for help when needed. I will do everything to help my students find success, but if they don’t ask for help (either from me, another teacher, a parent, another student, an older sibling, etc) or come in for tutoring when confused on a topic, they will fall further and further behind. Please encourage your child to seek out help *as soon* as possible to keep up with the pacing. Each day builds on the prior day; not understanding is not an option.
* Teacher:
  + Communication – I am available by calling the office (594-1300); however, e-mail is the **best** way to get a message to me: rpatterson@dcbe.org . My goal is to reply to any message left for me within 48 hours.
  + Extra help – I will be available for help Monday – Thursday until 4:00. In the case of an appointment or meeting, I will give students at least 1 day notice. Additionally, school-wide tutoring is also available.