

**General Course Information**

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| Course Title | ***Algebra 2*** |
| Description | ***Algebra 2*** is designed to focus on the Michigan high school math standards which are assessed at the state level. The primary focus will be on the conceptual categories of Algebra, Functions and Modeling but it will also integrate standards related to number and quantity, and Geometry. The course begins with an in-depth study of equations and inequalities, and then moves into the study of linear equations and functions. It examines advanced topics such as quadratic functions, factoring, polynomial functions, rational exponents and radical functions. Throughout the course, students will gain experience with graphing calculators and view them as a tool to help solve real world problems. Additional topics in STEAM, technology, data and financial literacy will be addressed to meet the goals of the College and Career Ready Academic Standards. |
| Room Number | 136 |
| Faculty Name | Mrs. Pollman |
| Contact Information  (Phone/email) | 517-545-0828 ext. 136  spollman@kwoods.org |
| Course Website | [pollman.kwoods.org](http://pollman.kwoods.org) |

**Introduction**

***Mathematics Vision Statement***

Mathematics is the science of p\_\_\_\_\_\_\_ and relationships. It is the language and l\_\_\_\_ of our technological world. Mathematical power is the ability to explore, to conjecture, to r\_\_\_\_\_ logically and to use a variety of mathematical methods effectively to solve problems. The ultimate g\_\_\_ of mathematics education is for all students to develop mathematical power to participate fully as a citizen and worker in our contemporary world.

**Helpful information about instructor expectations**

This course will follow the framework outlined by the ***Michigan Merit Curriculum*** and the ***SAT College Readiness Standards***. These benchmarks are assessed at the state level on the *SAT College Entrance Exam* which is given to all Michigan students. In addition, the ***Common Core State Standards*** will direct the instruction, activities and assessments in this course in order to develop mathematically proficient students.

Mathematically proficient students-

* Make sense of problems and persevere in solving them.
* Reason abstractly and quantitatively.
* Construct viable arguments and critique the reasoning of others.
* Model with mathematics.
* Use appropriate tools strategically.
* Attend to precision.
* Look for and make use of structure.
* Look for and express regularity in repeated reasoning

***Comment to students~*** I am really excited about this school year and want all students to be successful! Students are expected to use class time wisely and should plan to spend time at home completing assignments that are not finished in class. It really is up to you to choose to do those things which will help you be successful in this course. Since math builds one skill upon another, it is very important to keep up with daily assignments. If you are having trouble with the assignments, please **SEE ME** so that we can make arrangements for some extra help.

***Extra help is available!***

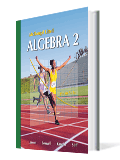
* Math support time will be available during ***M2A Advisory*** for students who need extra help during the school day.
* After school help is typically available every ***Wednesday until 5:00 pm***.\*

*\*If there is a scheduling conflict, I will notify students in advance of an alternate day to stay after.*

**Prerequisite knowledge/skills for success in this course**

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| Mastery Level | ***Prerequisites:*** Open to students who have successfully completed ***Algebra I*** and ***Geometry.***   * ***Work habits:*** Students will be able to work effectively independently and in groups. * ***Academic integrity:*** Students will act honestly and ethically in their work. * ***Study skills:*** Students will adhere to assignment deadlines. |
| Familiarity Level | * ***Intellectual openness:*** Students will use mathematical skills and technological tools to solve real world problems. |

**Course Materials**

***Textbook- Algebra 2 (2008) Larson, Boswell, Kanold, & Stiff***

* Students will be assigned a textbook at the beginning of the school year and will be required to complete a textbook agreement form which has been signed by a parent/guardian. Students will be expected to bring this textbook to class on a daily basis. Students will be responsible for their assigned book throughout the school year and will be charged a replacement fee if the book is lost or damaged. The school is not responsible for books left behind in the classroom.

***Calculator- TI-Nspire CX Handheld from Texas Instruments***

* The ***TI-Nspire CX*** allows students to visualize mathematical concepts and to take an interactive role in their learning. Students will be assigned an ***Nspire CX*** to use during class. These handhelds may not leave the classroom, since they need to be shared among all classes. Students are strongly ***encouraged*** to purchase the ***Nspire or Nspire CX*** for use at home. There are a **limited** number of ***Nspires*** which may be checked out by students on a nightly basis, but there is not a guarantee that one will be available for all students who need to sign one out. Any student who wishes to sign out a ***TI-Nspire*** must have an agreement form that is signed by a parent/guardian on file with Mrs. Pollman.

***TI-Nspire CX Handheld Key Features***

* Full-color, thin design- high resolution LCD
* Real-world images- use digital images or your own photos for real world connections
* Rechargeable battery- expected to last 2 weeks on a single charge
* Dynamic graphing features- save work like on a computer

**Grading**

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| Your ***semester*** grade will be determined as follows:  ***Formative Assessment…..10%***  ***Summative Assessment.....70% Semester Exam.....20%***  ***Formative Assessments- Practice***  ***Daily assignments & activities***  ***Summative Assessments-***  ***Chapter reviews, quizzes, tests & projects*** | ***KWHS follows the following grading scale:***  A = 95-100 (4.0)  A- = 90-94 (3.7)  B+ = 87-89 (3.3)  B = 83-36 (3.0)  B- = 80-82 (2.7)  C+ = 77-79 (2.3)  C = 73-76 (2.0)  C- = 70-72 (1.6)  F = below 70 (0.0) |

***Mastery Learning Program*** – Kensington Woods believe in a Mastery Learning Philosophy that allows students to develop their skills and knowledge until they can demonstrate mastery of the content. If a student does not pass the assessment, they are expected to follow the Mastery Learning Steps to revise their grade.

***Mastery Learning Steps***

* Fill out and turn in the Request to Retest or Revise form
* Turn in all formative/practice work from the unit, along with the previous assessment and rubric, if applicable.
* Retesting must take place outside of class time (after school, Advisory, Study Skills, Math Lab, etc.), with prior arrangements made with the teacher
* Retakes or revisions must be taken/turned in within 2 weeks after students receive the assessment back with feedback from the teacher.

***Formative Assessment (Daily Assignment) Policy***

1. Assignments should be done neatly. The process of solving a math problem is just as important as the final answer. Therefore, you must **show your work**!

2. Assignments that are not completed during class time are expected to be finished as homework before the date it will be collected, usually **Thursday** of each week. Students are expected to turn homework assignments in on time since math is a subject that builds one skill upon another. If students feel that they need additional time to master the material, they must meet with Mrs. Pollman and make a plan to get help outside of class time. Full credit will not be given to work that is not complete on the due date. (Ex- Students will only earn 80% of the original point value.)

3. It is the *students' responsibility* to make sure that they find out what they missed during their absence. Students should check the class assignment list for a listing of the topic and assignment and make sure that they pick up any handouts that they may have missed.

***Summative Assessment Policy***

* ***Quizzes & Tests~***  Students will generally have one or two quizzes per chapter and one test at the end of each chapter. These tests will include the current material covered in the chapter as well as some ***review problems***. If students are absent on a test day, they will be expected to make-up the test on the day they return to school.
* ***Retakes*~** **KWS- Request to Revise or Retest** Generally, students are not allowed to retake a chapter quiz or test during class time. However, students may fill out a ‘Request to Retest’ form and make arrangements outside of class time to master the material and then, retest.
* ***Test Corrections~*** Students will usually be given an opportunity to make test corrections for half credit on the day that tests are returned. Students are reminded that there is a difference between giving help and giving answers. Generally, only one class day will be allotted for test corrections. Beyond that, students must meet with the teacher outside of class time for corrections. If students score below 50% on a given test, they **must** make arrangements outside of class time to work on test corrections and demonstrate mastery before the adjusted grade will be posted.

**Classroom Expectations**

* ***Classroom Expectations****-*  Students should come to class ready to learn. Students should respect the learning environment, including the people and property around them. Students will be given the opportunity to have food & drinks in the classroom if they prove that they can do so in a responsible manner. If this privilege distracts from the learning environment, it will be taken away.

* **Cell Phones/Electronic Devices**- Cell phone use is not permitted in classrooms at any time or hallways during class time. If cell phones or electronic devices are used inappropriately they will be confiscated by staff and given to the office for the device to be picked up by the student at the end of the school day. Repeat offenses will cause the device to be held in the office until a parent comes in to retrieve the phone. A student’s refusal to hand over their phone to staff is considered insubordination and may prompt an automatic 1-day suspension.
* ***Beginning of Class-*** Be on time and in your seat with all required materials. ***\*\*\*Book, Calculator, Folder, Assignments, Pencil, Paper\*\*\****

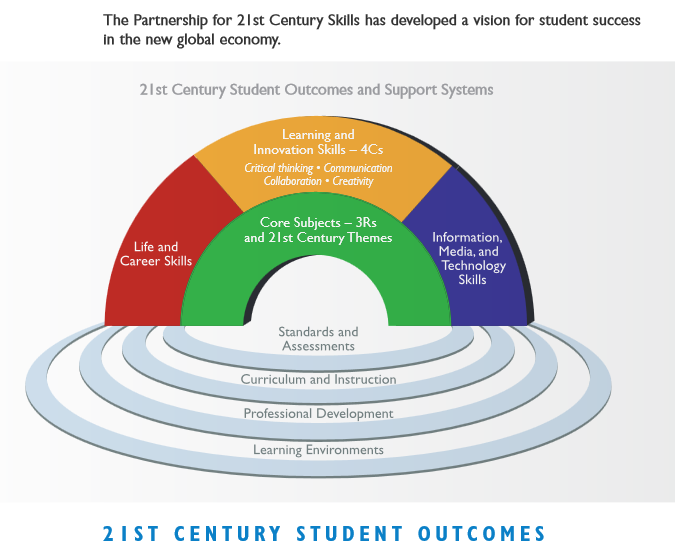
At the beginning of class, students will complete ***Math Starters*** or follow directions as given.

* ***Class Assignments & Activities***~ Students will be expected to participate in classroom activities and to complete classroom assignments. Class assignments will usually be graded on effort and completeness. Assignments will generally be collected on a weekly basis. Students will sometimes be given the responsibility to check their own assignments in class.
* ***Handing in Work-*** Typically, students will hold on to their class assignments which will be collected once a week by the teacher . If directed to hand in work, students will use the tray with their block time labeled on it. Students turning in make-up work, should use the same trays.
* ***End of Class-*** Students are expected to return all materials to their designated places and then return to their seats. Students will be dismissed by the **teacher. All students must be seated before class will be dismissed!**
* ***Finding out Course Grade-***  Students are encouraged to check MI-STAR in order to track their grades. Students may also make arrangements to see me outside of class to find out grade information. Time will not be taken out of class on a daily basis to discuss individual student grades.

**Schedule**

On this page, students will find an outline of the topics that will be covered in this course. Please keep in mind that this timeline may need to be adjusted from time to time to best meet the needs of the class.

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| **Time Frame** | **Topics** | **Assessments** |
| **September** | * ***Chapter 1-*** Equations and Inequalities * Nspire Technology Intro * Math in the Real World | * Ch 1 Quiz (1.1 to 1.3) * Ch 1 Test * *Writing*- “Math in the Real World” |
| **October** | * ***Chapter 2***- Linear Equations and Functions * Regression Analysis-Linear * Geometry Review | * Ch 2 Quiz (2.1 to 2.4) * Ch 2 Test * Ch 2 Exploration |
| **November** | * ***Chapter 3***- Linear Equations and Matrices * 21st Century Skills * Geometry Review | * Ch 3 Quiz (3.1 to 3.3)   ***\*Please Note-***  Lessons (3.5-3.8) which cover Matrices will be covered in May. |
| **December** | * Intro- ***Chapter 4***- Quadratic Functions and Factoring * Semester Exam Review * Geometry Review | * Ch 4 Quiz (4.1 to 4.5) * ***Semester Exam- Chapters 1-3*** |
| **January** | * Finish- ***Chapter 4*** * SAT Content Standards * Geometry Review | * Ch 4 Test * Ch 4 Exploration |
| **February** | * Intro- ***Chapter 5***- Polynomials and Polynomial Functions * SAT Content Standards * Geometry Review | * Ch 5 Quiz (5.1 to 5.4) * Power Point Project |
| **March** | * Finish- ***Chapter 5*** * Stock Market Game * 21st Century Skills | * Ch 5 Test * Ch 5 Exploration |
| **April** | * ***Chapter 6***- Rational Exponents and Radical Functions * Stock Market Game | * Ch 6 Quiz (6.1 to 6.4) * Stock Market Game Reflection & Analysis |
| **11th Grade**  **Summative Testing** | **April 14th**  ***College Entrance: SAT with Essay***  **April 15th**  ***Work Skills: ACT WorkKeys*** | **April 16th**  ***M-Step Test***  ***Science & Social Studies*** |
| **May** | * Finish- ***Chapter 6*** * Semester Exam Review | * Ch 6 Test * ***Semester Exam- Chapters 4-6***   ***\*Please Note-***  Lessons (3.5-3.8) which cover Matrices will be covered in May. |

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