# The Vanguard School Junior High <br> $8^{\text {th }}$ grade 

## English

Novels

- To Kill A Mockingbird by Harper Lee
- A Midsummer Night's Dream or Much Ado About

Nothing by William Shakespeare

- Animal Farm by George Orwell
- Ivanhoe by Sir Walter Scott
- Various short stories

Grammar

- Parts of speech
- Parts of a sentence
- Prepositional and verbal phrases
- Independent and subordinate clauses
- Types of sentences
- Sentence diagramming
- Subject-verb and pronoun agreement
- Cases of Pronouns
- Correct use of modifier

Spelling and Vocabulary derived from literature
Weekly composition practice and instruction
Speeches
Poetry

## Latin

- Latin 1B


## Science

Chemical Building Blocks

- Matter
- Periodic Table

Chemical Interactions

- Basic balancing equations
- States of matter
- Atoms, elements, and chemical bonds
- Chemical reactions and equations

Motion, Forces, and Energy

- Newton's laws
- Fluid Forces
- Work, power, and simple machines
- Energy and energy resources
- Thermal energy

Waves, Electricity, and Magnetism

- Sound and light waves
- Electricty
- Electromagnetism
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## History

Out of Many

- Reconstruction after Civil War
- Immigration and political reform
- Continued Westward expansion
- Rise of labor unions
- Industrial expansion and reform
- Latin American policies and politics
- World War I
- Roaring 20's and Great Depression
- American isolationism
- World War II
- Rise of American international power
- Space race and social reform
- Early Cold War
- Vietnam and Watergate
- Growing equality in America/civil rights
- Late Cold War
- 9/11 events


## Math- Saxon

Course 3

- Ratios and proportions
- Percent increase, tax, tips, and discounts
- Area and perimeter of all basic shapes
- Area and circumference of circles
- Scientific notation
- Simplify expressions, solve equations
- Graph a line in slope intercept form


## Algebra I

- Graph functions
- Simplify complex expressions
- Solve complex equations
- Factor trinomials
- Real world word problems
- Statistics and probability


## Algebra II

- Linear functions
- Matrices
- Polynomials
- Exponential and logarithmic functions
- Trigonometry
- Quadratic functions

