

The New School of Northern Virginia Curriculum Guide

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English Department

Essential Skills: to communicate effectively, to contextualize information and make connections, to think and act ethically, to work creatively.

The English Department at The New School has the threefold purpose of 1) developing students' oral and written communication skills; 2) cultivating a knowledge and enthusiasm for literature, its forms, its genres, and stories told in other media; and 3) using works as a springboard for larger discussions on topics such as identity, race, class, the individual's relationship to society, and so on. English classes may be coordinated with courses in other disciplines (*e.g.* history, art, or science) to supplement and deepen the study of a particular topic, or period.

Lower School courses are offered at two levels: Grades 5-6 and Grades 7-8. High School courses are offered at three core levels: Introductory (Level 1), Intermediate (Level 2), Advanced (Level 3). These main High School levels are bracketed by Level A courses and Honors/AP courses.

As students progress through the levels they are led to greater mastery of the skills in expository and creative expression, oral presentation, and research, as well as a more sophisticated and nuanced understanding of the "anatomy," and potentials, of literature. Individual courses at any level may focus on literature as an art form, or speaking and writing, or may use works to fuel other discussions, with a general guideline that lower-level courses be more general and basic. Specific guidelines for each level are mapped in the chart below.

Students are recommended to a higher level only after having demonstrated a sufficient mastery of the previous one. Generally speaking, students are expected to be taking Level 3 classes by their junior or senior year. Under certain circumstances it may be possible for a student to fulfill his or her credits with lower-level courses, and still graduate in good standing. Honors / AP courses are considered to be highly advanced, and students who seek them should be prepared for a level of rigor beyond the typical high school curriculum.

It should be noted that while a course may focus on a specific aspect of the broader discipline of English, it should also hearken to aspects that are not its main focus--particularly where skills are concerned. For example, a literature course should include commentary on the structure of clear sentences, paragraphs and essays, while a writing course should use pieces by established, competent authors as models. All courses should look for opportunities to develop students' vocabulary, and should cultivate in students the practices by which they may expand their vocabulary on their own.

Lower School Curriculum

Lower School classes are divided into two levels: Grades 4-6 and Grades 7-8, as shown below. This enables us to offer mixed-grade classes dealing with similar subject matter, such as oral storytelling, genre studies, or essay writing, while preserving our ability to provide one-on-one and small-group instruction to meet the needs of different ages and abilities.

In Grades 7-8, students take Writing Workshop and Literature courses during alternating quarters. Although both courses develop reading, writing, and oral expression skills, they develop these skills through differing but complementary approaches. Writing Workshop places particular emphasis on improving the fluency, independence, and self-confidence of young writers. This is done through an extended study of the writing process, including various techniques for developing ideas, drafting, revising, and editing; the reading of excellent sample pieces in a variety of genres; allowing students to choose their own topics; sharing in-progress and completed work; and frequent student-teacher conferences. Literature courses, meanwhile, focus on developing skills in the context of a shared reading experience, often focusing on a particular genre such as mystery, science fiction, or non-fiction memoirs.

Reading

Students are able demonstrate a thorough understanding of age-appropriate texts and to develop the lifelong habit of reading for pleasure.

Grades 4-6	Grades 7-8
Students read in a variety of genres, both assigned and self-selected books and magazines	Learns to distinguish main ideas from subordinate ones, key details from minor ones, main thesis from supporting points, etc.
Students learn to identify the major characters, setting, and plot of a story	Identifies characters, setting, conflict, plot (as evolution of conflict), in a story.
Students actively engage with the books they read, often writing epilogues, re-telling the story, adapting scenes to skit form, or creating illustrations with captions	Is able to explain the action of the plot; understands the chronological order of events.
Students give book talks or write book reports each quarter. Book talks require the student to select a passage to read out loud to the class.	Attention is on diversity of literature, with a thought to cultivating enthusiasm for reading.
Students learn to derive meaning from context and/or to use the dictionary when they come upon an unfamiliar word.	Writing Workshop courses require students to read books of their choice, and to do oral and written book reviews.
Students make a connection between their “vocabulary lessons” and the words they encounter when they read	Literature courses are frequently genre-specific, examining the patterns of specific genres and periods of literature.
	Identifies the thesis and main arguments of a piece

	of expository writing.
	Reads a passage out loud with good pronunciation and growing fluency.
	Understands age/grade level vocabulary. Is developing the habit of looking up unknown words to expand vocabulary.
	Recognizes simple rhetorical devices, such as analogy and alliteration, as used in prose, fiction and poetry.

Writing

Students are to be able to produce clear, effective, articulate expression and communication in written form.

	Grades 4-6	Grades 7-8
E x p o s i t o r y	Student follows the steps of the writing process to create a finished essay (pre-writing, drafting, revising, editing, final copy) of 3 to 5 paragraphs.	With some initial guidance, able to articulate a clear working question for a project or exhibition. Able to articulate an identifiable thesis.
	Student writes paragraphs with topic sentences, and supporting details, examples, and definitions.	Becomes comfortable with 2 page writing assignments
	Student is able to write a multi-paragraph essay with introduction, body, and conclusion.	Able to make preliminary evaluation of sources (including website quality).
	Student learns to proofread work for proper mechanics (capitals, punctuation, grammar, spelling). Students work in their spelling books to learn spelling rules and how to correctly spell frequently misspelled words.	Understands need for citations. Is introduced to bibliographic format.
	Student is introduced to the concepts of citation, footnotes, and bibliography.	Able to write clear, simple sentences with few grammatical, punctuation, or spelling errors.
	Student develops an expanded vocabulary to help convey thoughts accurately and concisely.	Able to organize thoughts into paragraphs, connect paragraphs in logical sequence.
	Students write in their communication journal twice each week, to develop the habit of writing freely without self-editing.	Supports points with examples.
	Students learn to write in cursive.	Is introduced to, and begins to consider,

	Students written work must be legible (in cursive, printed, or typed).	counterarguments.
C r e a t i v e	<p>Student recognizes, appreciates, and writes in a variety of prose and poetic forms.</p> <p>Student learns to use graphic organizers to assist with character development, setting, and story sequencing.</p> <p>Student follows the steps of the writing process to create a finished story or poem (pre-writing, drafting, revising, editing, final copy).</p> <p>Students learn about and use metaphors, similes, alliteration, rhyme scheme, etc.</p>	<p>Is able to write a short story with a clear conflict and plot that ends within a given length.</p> <p>Growing skill with elements such as character development, dialogue, narrative pacing, and description.</p> <p>Is able to write a poem with a central idea, sharp images, and growing sensitivity to elements such as word choice, rhyme, and rhythm.</p>

Oral Expression

Students are to be able to effectively express their ideas in both formal presentations and informal discussions, and to listen and respond to the ideas of others.

Grades 4-6	Grades 7-8
<p>Student learns techniques for oral expression: making eye contact, no fidgeting, using a “hook” to engage the audience, speaking slowly and clearly, keeping on topic, etc.-</p> <p>Students present oral book talks that engage the audience and share the important aspects of the book.</p> <p>Students present “how-to” demonstrations to sequentially and clearly teach a skill to classmates.</p> <p>Students ask questions, and respond to them, thoughtfully and appropriately.</p> <p>Students memorize their lines and listen for their cues, as they perform an act from a Shakespeare play each year.</p>	<p>Stays relevant (on topic).</p> <p>Limits interruptions.</p> <p>Uses clear speech, appropriate vocabulary and volume.</p> <p>Gives oral presentations with a clear beginning, middle, conclusion.</p> <p>Is aware of appropriate and inappropriate non-verbal communication.</p> <p>Tries to engage listeners through eye contact, tone, etc.</p>

High School Curriculum

Generally speaking, High School classes are allocated to a three-tier level system mapped below. However, this system is bracketed on each side by a special type of courses: Prior to taking Level 1 courses, some students will take Level A courses. On the other end of the spectrum, having mastered Level 3 courses, some students will take Honors or AP courses.

Level A

Level A courses are designed for students, including international students, who could benefit from extra preparation in foundational skills before entering a Level 1 course. Level A courses emphasize learning vocabulary, and getting at the meaning of texts suitable for a 7th to 9th grade reading level. Students learn basic writing skills such as organizing essays into 2-3 pages with an Introduction, Body and Conclusion. Students also practice correcting grammar and sentence structures, and learn to distinguish honest and proper use of sources from plagiarism.

Honors / AP Courses

For students who may be ready for an experienced above and beyond Level 3 classes, Honors and AP Courses may be offered. The AP Literature and Composition course is offered. Honors classes may be designed according to teacher and/or student interest. Generally, they are for students who are seeking a material, discussion and work expectations reminiscent of an early college course.

These exceptional courses notwithstanding, the development of skills through the levels of English classes is charted as follows.

Reading

Students are to be able to extrapolate authorial intent and thematic meaning as they read in a variety of genres, and to develop the lifelong habit of reading for pleasure.

Introductory (1)	Advanced (2)
Teacher assesses students reading ability, identifies struggling readers, discusses strategies for reading difficult text. (Note: teachers will have to distinguish the boundary between an intervention that falls within the scope of their classes, and the kind that is more clearly remedial, and outside the scope of the class).	Teacher assesses students' reading ability, sets expectation that students develop strategies for managing difficult reading.
Students identify key elements of fiction: characters, conflict, stakes, setting, tone, theme, etc.	Literature can be used for an access point to discussion of a variety of themes.
Students identify ways characters are revealed: description, dialogue, action, appearance, etc.	Literature can be studied as an art form, with attention to craft choices and their effects.
Students learn to evaluate characters as approximations of people. Evaluates roundness or flatness of characters, personality traits, motives, etc.	
Students are encouraged to view a text as an "inhabitable" world, letting details engage their	Students connect text with historical facts or relevant aspects of the real, current

imaginations, experiencing the text in a living way, like a movie.	world.
Students are shown how cultural context can help unlock difficult-to-understand text, are given tools for doing this themselves.	
Students learn the difference between a “moral” and a “theme,” are shown the nuance inherent to good literature.	
Students are either given lessons in covered vocabulary or are taught to look up vocabulary themselves.	Teacher either leads students in vocabulary lessons or sets expectation that students will be accountable for vocabulary themselves.
Teacher provides lessons on criteria for judging a source’s authority, relevance, appropriateness, timeliness, and objectivity. Students learn to discern a non-fiction text’s theme, thesis, main points/arguments, and structure.	Teacher leads students into critical analysis of the text, including assessment of points of view, nuances of meaning, and validity of arguments.

Writing

Students are to be able to produce clear, effective, articulate expression and communication in written form.

Introductory (1)	Advanced (2)
Students are introduced to the five-paragraph essay format: introduction, body paragraphs conclusion. Students are led to write paragraphs with topic sentences and supporting evidence and, where applicable, transitions and “warrants” which connect presented evidence to a larger argument. Students are given this example as a touchstone for clarity, but they can be encouraged to deviate from it for the sake of being clearer, or for another defensible purpose.	Teacher harkens to writing skills of Level 1 and sets the expectation that students have mastered them. Students are held accountable for writing well-organized paragraphs composed of clear sentences, with attention to accurate word choices.
Teacher assesses students for their ability to identify basic grammatical objects including noun, verb, adjective, adverb, subject, predicate, phrase, clause. Teacher makes sure teacher and students have a sufficiently common lexicon for talking about writing when teacher is evaluating student writing.	
Students are led to write well organized paragraphs composed of clear sentences, paying	Students write fluently and easily with a good understanding of communicating

attention to accurate word choices. Students are introduced to the merits of writing one main idea per paragraph.	effectively.
Students are led to determine the quality of online sources for research papers, are introduced to academic sources.	Teacher reviews to the skills taught in Level One for effective research and citation (if there is an assignment that makes use of research and/or citation).
Students learn MLA format for citations and bibliography. (Note: it's encouraged to use at least the bibliography even if a paper uses a single source.)	
Students are led to distinguish good questions from bad when developing a thesis; students are led to develop a clear thesis when writing. Students are led to develop a plan for supporting their argument.	Students are led to respond to increasingly complex questions about increasingly nuanced ideas, which challenge them to express themselves clearly and completely. Students are held accountable for using the tools of expression and clarity taught in Level One, or for achieving at least the same level of clarity their own way.
Students are led to consider counter-arguments in their essays.	
Students may explore creative writing as a means of personal expression and as a means to get closer to other texts.	Students may do workshop-level creative writing work, applying craft elements used by other authors, inventing techniques themselves, making close evaluations of their peers' work.

Oral Expression

Students are to be able to effectively and articulately express nuanced ideas in both formal presentations and informal oral discussions, and proactively listen to others.

Introductory (1)	Advanced (2)
Teacher considers explicit lessons or commentary on the topics below:	Teacher harkens to, and holds students accountable for, the topics below:
Students stay on topic.	Students stay on topic. Students are able to expand the topic by exploring tangential aspects of the topic while staying relevant.
Through teacher modeling and lessons, students are coached on the effectiveness of clear, precise, concise communication.	Students use clear, precise, concise speech with greater vocabulary range, style, and complexity of thought, and can organize arguments meaningfully.
Students engage one another, do not merely talk to the teacher.	Students engage one another (not merely talk to the teacher), as well as a larger audience.
Students read aloud and speak with reasonable fluency.	Students read aloud and speak with fluency, engage the listeners, and understand the use of tone and voice to achieve different audience effects.
Students distinguish between formal and informal diction; they learn to esteem the	Students distinguish between formal and informal diction; esteem the former in class discussions, and

former in class discussions toward developing basic proficiency in it.	develop more nuanced proficiency in it.
Teacher coaches students on engaging listeners with volume, tone, posture, eye contact, and gestures, as well as other non-verbal modes of communication.	Students are comfortable with a variety of non-verbal modes of communication and can integrate them to enhance communication.

Mathematics Department

Essential Skills: communicate effectively, contextualize information, persist in achieving quality, manage time and resources, solve problems.

The Mathematics Department at The New School spans levels from arithmetic with integers, fractions, decimals, and percents (in elementary school), through Calculus and beyond (college-level courses taught in the high school). As students progress through the courses they are introduced to the skills, concepts and habits of mind that will allow them to succeed in the math used in every day life, future math courses, and other courses that utilize math.

Students in the high school are required to complete three math courses: Algebra 1 (Level 1), Geometry (Level 2), and one more at Level 2 or above. Those intending to go on to a four-year college are suggested to take courses at least through Algebra 2 (Level 3). Other courses that may be offered will be Algebra 2 Foundations (Level 2), Statistics (Level 4), Precalculus (Level 4), Linear Algebra (Level 4 Honors?), Building Our System of Mathematics (Level 4 Honors), Calculus (Level 4), AP Calculus (Level 5). Students must take Precalculus before taking Calculus and must have permission of the teacher to enroll in any Honors class.

Math courses at The New School emphasize skills. For every new skill being learned, students work on progressing through the following steps toward mastery:

- Execute (solve) problems accurately (hopefully showing work)
- Verbalize their process for a specific problem
- Explain how to do a type of problem (create an algorithm)
- Explain why each step of the algorithm works the way it does

Within the above scaffolding, students will be encouraged to communicate in the language of mathematics and to develop precise, logical arguments.

The precise skills covered in the traditional college-bound progression of math courses are shown in the following tables, which are organized by key content categories. An outline of those categories precedes the table.

Outline of Table Content Categories

- 1.0 Arithmetic and Algebraic Simplifying
 - 1.1 Arithmetic Simplifying
 - 1.1.1 Adding, subtracting, multiplying, and dividing
 - 1.1.2 Fractions
 - 1.1.3 Exponents
 - 1.2 Algebraic Simplifying
 - 1.3 Formulas and Definitions
 - 1.4 Trigonometry
 - 1.5 Matrices
- 2.0 Properties of Equality, Factoring, and Solving Equations
 - 2.1 Factoring
 - 2.2 Properties of Operations
 - 2.3 Solving Equations
 - 2.4 Theorems
 - 2.5 Justification and Proof
- 3.0 Functions and Graphing
 - 3.1 Graphing on the coordinate plane
 - 3.2 Functions
 - 3.3 Features of Graphs
 - 3.4 Trigonometry
- 4.0 Miscellaneous
 - 4.1 Geometric Definitions
 - 4.2 Word Problems / Applications
 - 4.3 Miscellaneous

Elementary School Curriculum

1.0 Arithmetic and Algebraic Simplifying

1.1 Arithmetic

1.1.1 Adding, subtracting, multiplying, and dividing positive integers

Grades 4-5	Grade 6
Comparing and ordering whole numbers	
Estimating sums and differences of large integers	Mental addition and subtraction of positive and negative integers
Adding and subtracting 1-4 digit numbers	Review adding and subtracting 1-4 digit positive integers
Algorithms for adding and subtracting large integers	
Estimating products and quotients of large integers	Mental multiplication and division of positive and negative integers
Multiplying 1-4 digit numbers by one digit numbers	Review adding and subtracting 1-4 digit positive integers
Multiplying 1-4 digit numbers by 2 and more digit numbers	
Algorithm for multiplying large integers	
Dividing 1-4 digit numbers by one digit numbers	
Dividing 2 and more digit numbers by 2 and more digit numbers	
Algorithm for long division	
Order of operations with few nested parentheses	Evaluating numerical expressions using order of operations (with parentheses and absolute value, but no exponents)

1.1.2 Fractions

Grades 4-5	Grade 6
Comparing and ordering fractions	Categorizing rational numbers and irrational numbers
Comparing and ordering mixed numbers	Comparing and ordering rational numbers
Comparing and ordering fractions and mixed numbers in decimal form	Reducing fractions
Estimating sums and differences with mixed numbers	Adding, subtracting, multiplying and dividing fractions

Estimating products and quotients with mixed numbers	
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1.1.3 Exponents

Grades 4-5	Grade 6
	Evaluating powers of positive integers
	Order of operations including exponents

1.1.4 Absolute Value

Grades 4-5	Grade 6
	Definition of absolute value as a distance from zero
	Evaluate expressions involving absolute values

1.2 Algebraic Simplifying

Grades 4-5	Grade 6
Combining like terms in expressions with one-variable linear monomials	Introduction to combining like terms in expressions with one-variable monomials in varying exponents

1.3 Formulas and Definitions

Grades 4-5	Grade 6
Evaluating expressions in one or two variables for given values	Evaluating increasingly more complex expressions in one, two or more variables for given values

1.4 Trigonometry

1.5 Matrices

2.0 Properties of Equality, Factoring, and Solving Equations

2.1 Factoring

Grades 4-5	Grade 6
	Prime factorization of up to four digit positive integers
	Greatest Common Factor of up to 3 three digit numbers
	Least Common Multiple of up to three two digit positive integers

2.2 Properties of Operations

Grades 4-5	Grade 6
	Additive Identity Property of 0
	Multiplicative Identity Property of 1
	Additive Inverse Property
	Multiplicative Inverse Property
	Identifying instance of application of properties
	Identifying instances of application of the Distributive Property
	Applying various properties where instructed

2.3 Solving Equations

Grades 4-5	Grade 6
One step equations involving addition and subtraction	Using inverse operations to solve one step equations involving positive integers
One step equations involving multiplication and division by positive integers	Using inverse operations to solve one step equations involving negative integers
	Using inverse operations to solve one step equations involving fractions or mixed numbers
	Solving two step equations involving positive integers
	Solving two step equations involving negative integers

2.4 Theorems

2.5 Justification and Proof

3.0 Functions and Graphing

3.1 Graphing on the coordinate plane

Grades 4-5	Grade 6
	Set up coordinate axes with appropriate scales for given data
	Plot points on the coordinate plane

3.2 Functions

3.3 Features of Graphs

3.4 Trigonometry

4.0 Miscellaneous

4.1 Geometric Definitions

4.2 Word Problems / Applications

4.3 Miscellaneous

Grades 4-5	Grade 6
	Create bar graphs, circle graphs, box and whisker graphs, etc. for given data

Junior High and High School Curriculum

1.0 Arithmetic and Algebraic Simplifying

1.1 Arithmetic Simplifying

1.1.1 Adding, subtracting, multiplying, and dividing

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Order of Operations			Summation and factorial symbols	Real Number System	Finite limits as x approaches infinity
Comparing and Ordering				Summation notation	Infinite limits as x approaches infinity
Integers and Absolute Value			Define and perform arithmetic operations on complex numbers	Complex numbers (conjugates, operations on, solutions to quadratic equations)	Derivatives at a point
Adding and Subtracting Integers	Integers/Combining like terms – all arithmetic operations		Define and simplify imaginary monomials		Derivatives on a calculator
Multiplying and Dividing Integers			Rationalizing the denominator		Estimating with Finite Sums; specifically Riemann Sums
Estimating Sums and Differences				Brief overview of vectors	Numerical approximations of definite integrals using tables
Estimating Products and Quotients				Vector operations	Integral of a Constant

1.1.2 Fractions

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Rational Numbers				Norm of a vector	
Simplifying Fractions				Dot product of two vectors	
Writing Fractions as Decimals					
Multiplying Fractions	Fractions – arithmetic				
Dividing Fractions					
Ratio and Rates		Review proportion and apply to geometrical figures			Derivatives as instantaneous rates of change

1.1.3 Exponents

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Powers and Exponents			Properties of exponents		
Negative Exponents	Negative exponents		Introduction to negative exponents		
Scientific Notation	Square roots/ Radicals		Exploring powers and roots of negative numbers		
Using the Metric System			Radical notation for nth roots		
			Simplifying radicals by factoring and distributing over multiplication		
			Simplifying numerical expressions involving positive and negative rational		

			exponents		
			Nth roots and introduction to fractional exponents		

1.2 Algebraic Simplifying

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Variables and Expressions	Combine like terms and exponent rules		Definition of a polynomial	Long division of polynomials	Definition of a limit
Multiplying and Dividing Monomials			Monomials, binomials, trinomials, degree, and distributing to multiply	Synthetic division	Properties of limits
Writing Inequalities	Fraction bars $3x/2x$ – simplify rational expressions involving monomials		Simplifying numerical and algebraic expressions involving positive and negative rational exponents	Fundamental Theorem of Algebra	One and two sided limits
					Derivative definition and notation
					Definite integral Notation

1.3 Formulas and Definitions

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Using Formulas	Using/ manipulating formulas- with excel project	Definitions - the concept			Power rule, sum and difference rule

Area and Perimeter		Betweenness and distance (review distance formula)		Distance & Midpoint & Circle formulas	Product and Quotient rules
Make a Table		Pythagorean Theorem (intense application problems)		Convert between polar and rectangular coordinates	Chain Rule
		Arc Length and Circumference			Derivatives of Exponential and Logarithmic Functions
		Circle and Sector areas			
		The Distance Formula			

1.4 Trigonometry

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
		SOH CAH TOA	SOH CAH TOA	SOH CAH TOA, ratios in 30-60-90 and 45-45-90 triangles	Derivatives of Trigonometric Functions
		Ratios in special right triangles – 30-60-90, 45-45-90	Finding inverse sine, cosine and tangent using a calculator	Degree/radian conversion, definition of radian, arc-length formula	Derivatives of Inverse Trigonometric Functions
			Complements/Cofunction Identity, Pythagorean Identity, $\tan = \sin/\cos$, sine and cosine of 30, 60 and 45 degrees	Trig Identities and Identity Proofs	
			The Unit Circle, and sine, cosine of	The Unit Circle and sine, cosine and	

			multiples of 90 degrees	tangent of multiples of 30, 45, 60 and 90 degrees.	
			Cosine and Sine in quadrants 2-4		
			The Law of Cosines	The Law of Cosines	
			The Law of Sines	The Law of Sines	

1.5 Matrices

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
			Storing data in matrices		
			Matrix addition	Addition and subtraction of matrices	
			Matrix multiplication	Multiplication of matrices	
				Determinants of matrices	
				Inverses of matrices	

2.0 Properties of Equality, Factoring, and Solving Equations

2.1 Factoring

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Factors and Monomials	Greatest common factor (numerical and monomial)		Factoring Quadratic trinomials (and monomial multiples thereof)	Factoring higher degree polynomials	
Prime Factorization	Factoring a Trinomial quadratic with no leading coefficient		Factoring a perfect square and difference of two squares		

Greatest Common Factor	Factoring a Trinomial quadratic with a leading coefficient (factoring by grouping)				
Least Common Multiple	Factoring a Trinomial with a GCF and then one of the above				

2.2 Properties of Operations

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Properties	Properties – reflexive, symmetric, transitive, commutative, associative, distributive, identity, inverse	Review algebraic properties – commutative, associative, distributive, reflexive, transitive, symmetric	Properties of Inverse functions (round trip theorem, notation, power function inverses)	Product Rule for Logarithms	Properties of definite integrals
The Distributive Property				Quotient rule for logarithms	
				Power Rule for logarithms	
				Change of base formula for logarithms	

2.3 Solving Equations

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Variables and Equations	Isolating 1 variable in simple equations		Solving linear equations'	Solving linear equations and inequalities	Implicit Differentiation

Inequalities	Equation review – one-step, two-step, linear		Rewriting formulas (solving for one variable in terms of others)	Solving equations graphically and numerically – use the graphing calculator table and calc menu	Integration by Substitution
Solving Equations by Adding and Subtracting	Solving equations with Variables on both sides – linear		Direct variation	Solving quadratic and absolute value inequalities – absolute value as a piecewise function	Solving differential equations
Solving Equations by Multiplying or Dividing	Review complex equations – with distribution, combining like terms, fractions and variables on both sides		Inverse variation	Solve Rational Equations (deal with extraneous solutions)	Antiderivatives using rules of differentiation
Solving Inequalities by Adding and Subtracting	Solving Inequalities		Fitting a model to data by hand using variation as a guide	Polynomial and Rational Inequalities (sign test)	Solving definite integrals algebraically
Solving Inequalities by Multiplying or Dividing	Solving systems of equations by substitution		Solving systems of equations using tables or graphs (linear and non-linear)	Solving equations involving exponential and logarithmic functions (including quadratics using substitution)	Solving separable differential equations
Solving Equations Using Inverse Operations	Solving systems of equations by eliminating a variable		Solving systems of equations by substitution (linear and non-linear)	Solving systems of equations graphically and algebraically (review)	
Fractions and Equations/Inequalities	Solving a Quadratic equation		Solving systems using linear combinations (two and three	Solving linear systems by row operations	

			variables)		
Solving Equations and Inequalities			Solving equations using square roots and involving absolute value	Adding and eliminating a parameter	
Solving Two Step Equations			Completing the square	Converting between the graph-ready and standard forms of conic sections	
Writing Two Step Equations			The Quadratic formula – proof and use		
Solving Multi step Equations/Inequalities			Using the Discriminant		
System of Equations			Solving equations with radicals (discussion of extraneous solutions)		
			Estimating/finding the solutions to polynomial equations using graphs and tables		

2.4 Theorems

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
		Addition property of angles	The Factor Theorem (use calculator to find zeros and factor)	Factor Theorem	Sandwich theorem
		SAS, ASA, SSS, AAS, SsA	Rational-Zero(Roots) Theorem	Remainder Theorem	Differentiability implies continuity

		(conditional thm), HL, CPCTC			
		Sufficient conditions for parallelograms	Fundamental Theorem of Algebra, number of roots of a polynomial equation, and solving polynomial equations with a calculator	Rational Roots Tests	Mean Value Theorem
		Exterior angle theorem – equal to sum of interior angles		Bounds Tests	First derivative test for local extrema
		SSS, AAA, SAS, Side Splitting Theorem		Reciprocal, Pythagorean, odd/even, and co- function identities and simplifying expressions using the former.	Second derivative test for local extrema
		Geometric Mean in right triangles		Sum and Difference identities (used in proof and in finding the sine, cosine or tangent of a bizarre angle)	Average value of a function
		Inscribed Angle Theorem		Double-angle, power reducing, half-angle identities, proof, solving trig equations	Fundamental Theorem part 1 and part 2
					Intermediate Value Theorem

2.5 Justification and Proof

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
		Postulates			
		Theorems		Proof by Induction	
		If/then statements			
		Converse, inverse, contrapositive		Identity proof strategies (calculator, working with one side, working with both sides, writing everything in terms of sine and cosine)	
		What are conjectures (overview)			
		One step proofs using above properties			
		Relating equal lengths and angles to congruent figures			
		One step congruence proofs			
		Proofs using reflections			
		Congruence Proofs			
		Problems with overlapping triangles (that share a side or side and angles)			
		The Logic of Making Conclusions			
		Negations and Ruling out Possibilities			

		Indirect Proof			
		Proof with Coordinates			

3.0 Functions and Graphing

3.1 Graphing on the coordinate plane

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Ordered Pairs	Graphing by Plotting points	Finding union and intersection of points, lines and planes	Graph of $y = mx + b$	Graphing lines (3 formulas), parallel and perpendicular	Relationship between the graphs of f and f'
Coordinate System	T-Chart method (table of values) of graphing	Reflecting points, lines and figures in coordinate plane, over parallel and intersecting lines	Graph of $Ax + By = C$	Creating scatter plots and regression lines with a calculator	Identifying corresponding characteristics of f , f' and f''
Scatter Plots	Graphing given m and b	Vector translation	Graphing inequalities in the coordinate plane	Graphical Transformations	Creating slope fields
Graphing Linear Relations	Graphing $Y = mx + b$	Transformations with size change (and the properties) – using coordinate plane and in general with a center of size change		Sketch a polynomial	Analyzing antiderivatives graphically
Graphing Inequalities	Graphing with Point-slope (Eden wants for calc)	Points, lines and planes in space	Translating graphs vertically and horizontally, vertex form of a parabola	Graph Rational Functions	Graphing the function of the integral
Draw a Graph	Graphing linear Inequalities	Three Dimensional Coordinates	Graphing parabolas (written in standard form) by plotting	Graphs of exponential and logistic functions, the number e , and	

			points	population models	
	Solving systems of equations graphically	Proof with Coordinates		Graph points in polar form	
	Use table of values to graph parabolas			Lines and line segments in parametric form	

3.2 Functions

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Relations and Functions		Equation of Circle	Function definition, domain and range	Function notation/definition, domain and range, increasing, decreasing, zeros, maxes and mins on calculator, end behavior, asymptotes	Linearization
Equations as Functions			Function notation	Identifying basic parent functions	
			The nature of graphs of functions	Operations on functions and composition of functions	
			Systems of linear inequalities	Inverse functions and relations	
			Linear Programming	Define parametric functions	
			The greatest integer function (evaluation and graph)	Polynomial Functions	
			Power functions,	Logarithm as inverse,	

			even/odd, symmetry, end behavior	graph, basic properties	
			Composition of functions	Standard form of the conic section and telling from this which conic section is determined	
			Inverses of relations (switching variables, domain and range, horizontal line test)	Graph-ready form of the conic section	
				Distance & Midpoint & Circle formulas	

3.3 Features of Graphs

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Slope	Use factoring to find x-intercepts	Define Isometry	Constant increase or decrease situations, piecewise linear functions	Vertex form of a quadratic function and more optimization word problems	Asymptotes
Intercepts	Use x-intercepts to find vertex	Define congruence	Finding the equation of a line or a piecewise linear function using point-slope formula	Concept of limits	End behavior model
		Define congruent parts of congruent figures	Fitting a line to data by hand using estimation and using a calculator	Equations of asymptotes (vertical and horizontal) in rational functions	Continuous functions
		Mean and Midpoint	Inequalities and compound inequalities	Intercepts in rational functions	Points of discontinuity

			symbolically and graphically		
		Locating the center of a circle	Find the equation of a parabola using three points and a system of equations	Holes and Slant Asymptotes in rational functions	Removable discontinuity
				Placement of foci, center, vertices, axes of symmetry, asymptotes in conic sections	Jump Discontinuity
					Infinite Discontinuity
					Oscillating Discontinuity
					Tangent and Normal lines to a curve
					Finding slope of both tangent and normal lines
					Absolute (Global) extreme values
					Local (relative) extreme values
					Concavity, inflection points and the second derivative
					Trapezoidal Rule
					Integral as Area
					Areas in the plane
					Areas between curves
					Areas enclosed by intersecting curves

					Volumes, specifically solids with known cross sections
					Square cross sections
					Circular cross sections
					Cylindrical shells
					Solids of revolution

3.4 Trigonometry

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
				Unit circle, the wrapping function	
				Graphs of sine, cosine and other sinusoids	
				Graphs of tangent, cotangent, secant, and cosecant	
				Describing crazy graphs (the concept of infinitely fast oscillation and damping), proving periodicity, finding $A\sin(b(x-c))$ from a graph	
				Inverse trig functions, their domain, range,	

				function values, simplifying expressions involving inverse trig functions to a number or an algebraic expression	
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4.0 Miscellaneous

4.1 Geometric Definitions

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Circles and Circumference		How to measure angles using a protractor			
		Introduce the 4 types of Geometry and specifically what is Euclidian Geometry			
		Introduce polygons, names, interior and exterior angles			
		Review types of angles – acute, obtuse, straight, right			
		Parallel and perpendicular lines – constructions, slopes, angle pairs (AIA, AEA, corresponding, vertical, consecutive)			
		Building 3-D object			

		using paper (nets)			
		Surface Area of Prisms and Cylinders			
		Surface Area of Pyramids and Cones			
		Volumes of Prisms and Cylinders			
		Volume of Pyramids and Cones			
		Surface area and Volume of Sphere			
		Chord Length and Arc Measures			
		Angles formed by Chords or Secants			
		Tangents to Circles and Spheres			
		Angles formed by Tangents			
		Lengths of Chords, Secants and Tangents			
		Isoperimetric Inequality			

4.2 Word Problems / Applications

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Problem Solving: Work Backward		Squares (intense application problems)	Verbal descriptions of algebra	Mixing word problems and box optimization word problems	Average and instantaneous speed
		Rectangles (intense	Linear combination	Exponential growth	Average Rates of

		application problems)	situations (word problems)	and decay word problems	Change
		Irregular regions (intense application problems)	Quadratic expressions from rectangles and squares	Compound Interest problems (sometimes APY and Annuity problems)	Velocity and Acceleration as Rates of Change
		Triangles (intense application problems)	Compound interest (compounded n times a year)	Trig triangle word problems (finding heights and distances)	Modeling and Optimization
		Trapezoids (intense application problems)			Related Rates
					Integrals as net change and motion along a line

4.3 Miscellaneous

Pre Algebra:	Algebra 1:	Geometry:	Algebra 2:	Precalculus:	Calculus:
Arithmetic Sequences			Geometric sequences, recursive and explicit formulas	Arithmetic and geometric sequences	
Geometric Sequences			Arithmetic Sequences and Series	Limits of infinite sequences	
Measures of Central Tendency			Geometric Sequences and Series	Nth term in a sequence	
Simple Probability				Series and partial sums	
				Convergence	

Sciences Department

Essential Skills: communicate effectively, contextualize information and make connections, apply effective research methods, work collaboratively, work independently, solve problems, work creatively, understand and appreciate different perspectives.

Lower School Curriculum

Introductory (1)

Overall Skill	Goals
Student learns the basics of the Periodic Table.	Identify proton, neutron and electron through isotopes and ions. Identify and understand atomic number and atomic mass. Understand properties of metals and nonmetals. Understand how element carbon indicates a living organism. Understand the ozone vs. oxygen we breathe.
Student learns the types of substances.	Differentiate between element, molecule, homogeneous mixture and heterogeneous mixture Observe and study everyday elements, molecules and mixtures Understand hydrophobic and hydrophilic Substances
Student learns how to set up an experiment.	Determine control and variable. Determine dependent and independent variables Understand the effect of temperature on solutions.
Student learns about properties.	Understand the difference between a physical and chemical change. Determine density.
Student learns about chemical reactions.	Understand chemical reaction that created ozone.

	Understand chemical reaction in mitochondria that creates ATP.
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Advanced (2)

Overall Skill	Goals
Student gains greater understanding of the Periodic Table.	Determine isotopes mathematically. Understand ions and Ph Scale. Understand how to form ionic and covalent bonding. Understand octet rule and reactivity. Understand electron configuration.
Student learns the evolution of atomic theory.	Understand Thompson, Rutherford, Bohr, and Heisenberg's contributions. Debate the importance of particle accelerators and Higgs Boson.
Student learns to determine if a reaction is nuclear.	Understand fusion and fission. Understand radioactivity and radioactive dating.
Student learns about chemical reactions.	Understand conservation of mass. Understand balancing reactions. Understand catalysts and enzymes. Understand endothermic and exothermic reactions. Understand synthesis, decomposition, single displacement and double displacement reactions. Understand everyday chemical reactions (cooking, tarnishing, neutralization, fireworks, hair bleaching, etc.).

High School Curriculum

Biology

Introductory (1)

Initially, the student may be dependent upon the teacher to provide questions, materials and written research sources. She will be given data and be guided by the teacher through its analysis. As the course progresses, she begins to clarify questions provided by the teacher. She may be given data and asked to analyze it. Finally, the student should be able to pose her own questions about the material. She is able to collect certain data or source material for research, but may need significant guidance from the teacher.

Lab	Translated to Lesson Plans	Essential Skills
Basic to moderately complex experimentation.	<p>Teacher describes protocols to the student and makes the chemicals at first, later the student begins to devise one's own protocols.</p> <p>Student uses lab notebook for the first time.</p> <p>Student becomes accustomed to being in the lab, uses of equipment, rules and safety measures for lab use.</p>	<p>Work collaboratively</p> <p>Apply effective research methods</p>

Advanced (2)

Initially, the student may be guided by the teacher in formulating explanations from evidence. She can determine what constitutes evidence and can collect it. Later, she can connect her explanations to scientific knowledge. She can usually find appropriate sources for her research. She usually knows where the material for her experiment is, and how to use the equipment.

Lab	Translated to Lesson Plans	Essential Skills
Moderate to complex experimentation.	<p>Student understands positive and negative controls, dependent and independent variables.</p> <p>Student is familiar with using and caring for lab equipment.</p> <p>Student mixes chemicals with direction from teacher.</p> <p>Student is able to write most of her protocol,</p>	<p>Work collaboratively</p> <p>Work independently</p> <p>Apply effective research methods</p> <p>Manage materials and time to</p>

	but is aided by the teacher. Student is comfortable asking both the teacher and classmates for assistance.	accomplish goals
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Honors (3)

Initially, the student can connect explanations to scientific knowledge, but is directed toward new sources of knowledge. She can independently examine the sources and formulate questions and reasonable explanations. Later she can communicate and justify her explanations, forming logical arguments to explain the data.

Lab	Translated to Lesson Plans	Essential Skills
Complex experimentation.	<p>Student is able to make chemicals to specifications.</p> <p>Student is able to write her own laboratory protocol in many cases.</p> <p>In the lab, student will ask questions of the teacher without prompting.</p> <p>Student is able to work independently in the lab.</p> <p>Student is able to solve problems in a group or independently.</p>	<p>Work independently</p> <p>Apply effective research methods</p> <p>Solve problems</p> <p>Make connections and be aware of context</p>

Chemistry

Introductory (1)

Lab	Translated to Lesson Plans	Essential Skills
Basic to moderately complex experimentation.	<p>Student understands the Nature of Science: Observation, Inquiry, Analysis.</p> <p>Student learns the rationale behind the Scientific Method: Observation, Hypothesis, Experimental Design, Data Analysis, Inference.</p> <p>Student is able to apply correct units and conversions.</p>	<p>Making Connections and putting information into context</p> <p>Communicate effectively</p>

Advanced (2)

Lab	Translated to Lesson Plans	Essential Skills
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Moderate to complex experimentation.	<p>Student understands what is Atomic Stability and how it is reached.</p> <p>Student is able to use the Periodic Table as a tool.</p> <p>Student is able to connect molecular bonding and forces to real-life situations.</p>	Working collaboratively
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Honors (3)

Lab	Translated to Lesson Plans	Essential Skills
Complex experimentation.	<p>Student reviews and builds a strong foundation in nuclear and electronic stability.</p> <p>Student understands the forces and how they effect physical properties: bonding and intermolecular forces.</p> <p>Student understands all aspects of reactions: thermodynamics, kinetics, equilibrium.</p>	<p>Manage Materials and Time to Accomplish Goals</p> <p>Working Independently</p>

Physics

Introduction (1)

Overall Skill	Science Skills	Translated to Lesson Plans	Essential Skills
<p>Student develops a logical mind.</p> <p>Student develops a questioning, rational mind.</p>	<p>Learning by questioning.</p> <p>Practice with logic.</p> <p>Trial and error.</p> <p>Answering questions.</p>	<p>Discover everyday natural phenomenon.</p> <p>Relate natural phenomenon to course material.</p> <p>Complete many hands-on projects that explore the natural phenomenon.</p> <p>Design their own projects and explain the underlying processes.</p>	<p>Work collaboratively</p> <p>Work creatively</p>

Advanced (2)

Overall Skill	Science Skills	Translated to Lesson	Essential Skills
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		Plans	
Student develops an analytical mind. Student develops integrated abstractions	Intuitive predictability. Equation modeling. Derivation of laws. Laws inform design.	Start with knowledge either taught previously in a cursory fashion or previously ingrained but not understood. Discuss specific characteristics of this knowledge, and determine forces involved. Use developed understanding of forces to create broad relations (laws). Create project using applied laws.	Solve problems Work independently

Honors (3)

Overall Skill	Science Skills	Translated to Lesson Plans	Essential Skills
Student develops an abstract mind. Course focuses on purely abstract derivations and conclusions which are then analyzed for real-world relevance.	Observation. Modeling. Abstract mathematical analysis & integration. Describe abstract analysis in plain English.	Encounter a question that is baffling to rationality. Describe the baffling question in terms of the concrete. Take the concrete part of the baffling question and accept it as true; analyze the mathematical implications of concrete relationships. Ask “What does it mean?” Explain the once baffling question in non-baffling terms.	Appreciate and understand different perspectives Make connections and be aware of context

Social Sciences Department

Essential Skills: communicate effectively, contextualize information and make connections, think and act ethically, understand and appreciate different perspectives, apply effective research methods, work collaboratively.

The Social Sciences Department at The New School comprises five academic disciplines: social studies, world studies, geography, government, and U.S. history. Together, these disciplines introduce students to the skills, concepts, and habits of mind that allow them to understand human society and relationships among peoples over time. Social science courses at The New School emphasize written and spoken communication, evaluation of primary and secondary sources, research, and reasoned discussion.

Lower School Curriculum

The lower school social sciences curriculum introduces students to the fundamental concepts of human society and behavior, and gives students grade-appropriate foundational knowledge and skills in the subjects of geography, government, civics, world history, and U.S. history. The curriculum is designed to encourage creativity, curiosity, and critical thinking to inspire students to learn more about these subjects in high school and beyond.

Elementary School

In elementary school, students take three yearlong courses offered to mixed classes of fourth-, fifth-, and sixth-graders, as follows: (1) U.S. history, government, and civics; (2) world geography and culture; (3) world history.

	Reading	Writing	Research	Discussion and Critical Thinking
Skills	<ul style="list-style-type: none"> ▪ Identify main ideas and supporting details in secondary sources ▪ Appreciate and evaluate primary sources ▪ Distinguish between relevant and irrelevant information ▪ Distinguish fact from opinion 	<ul style="list-style-type: none"> ▪ Synthesize understanding of subject-area ideas and information in their own words ▪ Follow a logical order 	<ul style="list-style-type: none"> ▪ Conduct in-class and online research ▪ Determine credibility of a source (both online and print) 	<ul style="list-style-type: none"> ▪ Identify central issues ▪ Determine relevant information ▪ Recognize different points of view ▪ Draw conclusions
Goals	<ul style="list-style-type: none"> ▪ Be able to understand and communicate complex information ▪ Develop the ability to ask relevant 	<ul style="list-style-type: none"> ▪ Short in-class essays and responses (1-2 paragraphs) ▪ Demonstrate proficiency in focus skill 	<ul style="list-style-type: none"> ▪ In-class presentation or 1-2 page research paper. ▪ Demonstrate proficiency in 	<ul style="list-style-type: none"> ▪ Recognize patterns ▪ Begin to demonstrate reasoned judgment

	questions <ul style="list-style-type: none"> Improve oral reading and listening skills 		focus skill	
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Junior High School

In junior high school, students engage in four in-depth explorations of major periods in world history, as follows: (1) Ancient Greece; (2) the Middle Ages; (3) the Renaissance; and (4) international relations in the modern world.

	Reading	Writing	Research	Discussion and Critical Thinking
Skills	<ul style="list-style-type: none"> Identify main ideas and supporting details in secondary sources Identify and evaluate primary sources. Distinguish between relevant and irrelevant information Distinguish fact from opinion. 	<ul style="list-style-type: none"> Synthesize understanding of subject-area ideas and information in their own words Construct an outline Establish context or problem Develop a clear, meaningful thesis Support a thesis with sound, specific evidence Follow a logical order, with body paragraphs relevant to thesis 	<ul style="list-style-type: none"> Conduct online and library research. Determine credibility of a source (both online and print). Develop a research question Cite sources in MLA format. 	<ul style="list-style-type: none"> Identify central issues. Determining relevant information Recognize different points of view and bias. Draw conclusions
Goals	<ul style="list-style-type: none"> Be able to understand and communicate complex information Further develop the ability to ask relevant questions Improve oral reading and listening skills 	<ul style="list-style-type: none"> Short in-class essays and responses (1-3 paragraphs) 1-3 page expository or reflective essay Demonstrate proficiency in focus skill Demonstrate understanding of key concept 	<ul style="list-style-type: none"> 3- to 5-page research paper. Demonstrate proficiency in focus skill Demonstrate understanding of key concept 	<ul style="list-style-type: none"> Demonstrate reasoned judgment

High School Curriculum

High school social science courses are divided into four levels: Introductory, Advanced, Honors, and Advanced Placement (AP). In general, students enroll in an Introductory-level course as their first course within a discipline and Advanced, Honors, and AP courses thereafter. It is not recommended that students take more than one Introductory course within a discipline.

Social Studies

The social studies curriculum at The New School introduces students to the fundamental concepts of human society and behavior. As such, the range of topics of social studies courses is broad, encompassing economics, political/social history, religion, psychology, and philosophy. In general, however, New School social studies courses are topical and examine individual societies as a means to understand human society and the human experience in a broader sense.

Key Concepts:

- Society
- Culture
- Community
- Identity (Individual and Group)
- Gender
- Power
- Context
- Aesthetics
- Class
- Values (Universal and Culture-Specific)
- Modernity
- Change and Continuity

World Studies

The world studies curriculum at The New School focuses on international or global trends and interactions of peoples and civilizations. Whereas social studies courses are concerned with a particular social context or aspect of social life, world studies courses focus on global concerns – both universal (e.g., energy) and historically specific (e.g., the Cold War) – and the principles of international relations.

Key Concepts:

- Energy and Resources
- Transportation
- Communication
- Trade
- Power
- Aesthetics
- War
- Globalization

Geography

The geography curriculum at The New School focuses on the relationship between human societies and their environments and the resulting cultural-political and geopolitical patterns. Students are instructed in spatial concepts and the ability to interpret maps and graphs. New School geography courses also focus on the global environment and sustainability technologies.

Key Concepts:

- Location / Place
- Interaction
- Movement
- Stewardship
- Environment
- Region
- Sustainability

Government

The government curriculum at The New School focuses on human institutions and how political power is created, shared, and used within a particular society. Topics within the discipline may be abstract (e.g. Democracy vs. Monarchy) or historically specific (e.g. The Magna Carta). New School government courses also include civics instruction to enable students to assess information and make informed decisions as citizens.

Key Concepts:

- Separation of Power
- Freedom / Liberty
- Power
- Rule of Law
- Justice
- Human Nature

U.S. History

The US History curriculum at The New School focuses on cultivating in students an understanding of how the past is relevant to the modern world. This understanding consists of two elements: a familiarity with historical events, issues and personages, and an ability to integrate those facts into an appropriate conceptual framework.

Key Concepts:

- Balance of Power
- Civil Rights
- Free Market
- Liberalism
- States' Rights
- Suffrage
- Civil Liberties
- Colonization and Imperialism
- Federalism
- Isolationism
- Republicanism
- Sectionalism

High School Course Levels

Introductory (1)

Introductory-level social science courses instruct students in effective note taking, critical reading and writing, reasoned discussion, and research. As such, Introductory courses often have a lecture component. Students are expected to demonstrate proficiency in the key concept(s) and essential skill(s) of the course.

	Reading	Writing	Research	Discussion and Critical Thinking
Skills	<ul style="list-style-type: none"> ▪ Identify thesis and supporting points of a scholarly text. ▪ Identify and evaluate primary sources. ▪ Distinguish between relevant and irrelevant information ▪ Distinguish fact from opinion. 	<ul style="list-style-type: none"> ▪ Establish context or problem. ▪ Construct an outline. ▪ Develop a clear, meaningful thesis. ▪ Support a thesis with sound, specific evidence. ▪ Follow a logical order, with body paragraphs relevant to thesis. 	<ul style="list-style-type: none"> ▪ Conduct online and library research. ▪ Determine credibility of a source (both online and print). ▪ Annotate a bibliography. ▪ Develop a research question. ▪ Cite sources in MLA format. 	<ul style="list-style-type: none"> ▪ Identify central issues. ▪ Determining relevant information. ▪ Recognize bias. ▪ Draw conclusions.
Goal(s)	<ul style="list-style-type: none"> ▪ Annotate a scholarly book and primary source in preparation for class discussion, exam, and essay/research paper. 	<ul style="list-style-type: none"> ▪ 4-paragraph in-class essay. ▪ 2- to 4-page analytical essay. ▪ Demonstrate proficiency in focus skill. ▪ Demonstrate understanding of key concept. 	<ul style="list-style-type: none"> ▪ 5-page research paper or equivalent project. ▪ Demonstrate proficiency in focus skill. ▪ Demonstrate understanding of key concept. 	<ul style="list-style-type: none"> ▪ Demonstrate reasoned judgment.

Advanced (2)

Advanced-level social science courses are designed with understanding that the students have demonstrated a proficient understanding of the skills and goals of at least one Introductory social science course. Advanced courses are a continuation of Introductory courses in that they instruct students in the key areas of effective note taking, critical reading and writing, reasoned discussion, and research. However, Advanced courses are based on more demanding material and assignments and seek to train students in advanced skills and habits of mind of the discipline. Students are expected to demonstrate proficiency in the key concept(s) and essential skill(s) of the course.

	Reading	Writing	Research	Discussion and Critical Thinking
Skills	<ul style="list-style-type: none"> ▪ Identify thesis and supporting points of a scholarly text. ▪ Identify and evaluate primary sources. ▪ Distinguish between relevant and irrelevant information. ▪ Distinguish fact from opinion. 	<ul style="list-style-type: none"> ▪ Establish context or problem. ▪ Develop a clear, meaningful thesis. ▪ Support a thesis with sound, specific evidence. ▪ Follow logical order, with body paragraphs relevant to thesis. 	<ul style="list-style-type: none"> ▪ Conduct online and library research. ▪ Determine credibility of a source (both online and print). ▪ Annotate a bibliography. ▪ Develop a research question. ▪ Cite sources in MLA format. ▪ Demonstrate a full understanding of sources. 	<ul style="list-style-type: none"> ▪ Identify central issues. ▪ Determining relevant information. ▪ Recognize bias. ▪ Formulating appropriate questions. ▪ Analyzing cause and effect. ▪ Draw conclusions.
Goal(s)	<ul style="list-style-type: none"> ▪ Annotate a scholarly book and primary source in preparation for class discussion, exam, and essay/research paper. 	<ul style="list-style-type: none"> ▪ 5-paragraph in-class essay. ▪ 3- to 5-page analytical essay. ▪ Demonstrate proficiency in focus skill. ▪ Demonstrate understanding of key concept. 	<ul style="list-style-type: none"> ▪ 7- to 10-page research paper or equivalent project. ▪ Demonstrate proficiency in focus skill. ▪ Demonstrate understanding of key concept. 	<ul style="list-style-type: none"> ▪ Demonstrate reasoned judgment.

Honors (3)

Honors-level social science courses are designed for students who have demonstrated exceptional ability in Introductory or Advanced social science courses. Honors courses are based on advanced to college-level material and assume the students are skilled in the key areas of effective note taking, critical reading and writing, reasoned discussion, and research. Students maintain, and ultimately defend, a portfolio of their work, which is expected to be of publishable quality and demonstrate mastery of the key skills and habits of mind of the discipline.

	Reading	Writing	Research	Discussion and Critical Thinking
Skills	<ul style="list-style-type: none"> ▪ Identify thesis and supporting points of a scholarly text. ▪ Identify and evaluate primary sources. ▪ Distinguish between relevant and irrelevant information. ▪ Distinguish fact from opinion. 	<ul style="list-style-type: none"> ▪ Establish context or problem. ▪ Develop a clear, meaningful thesis. ▪ Support a thesis with sound, specific evidence. ▪ Follow logical order, with body paragraphs relevant to thesis. ▪ Use consistent language. ▪ Provide counter-evidence to thesis. ▪ Provide a statement on the significance of the thesis and its importance to the body of knowledge of topic. 	<ul style="list-style-type: none"> ▪ Conduct online and library research. ▪ Determine credibility of a source (both online and print). ▪ Annotate a bibliography. ▪ Develop a research question. ▪ Cite sources in MLA format. ▪ Demonstrate a full understanding of sources and the body of knowledge on topic. 	<ul style="list-style-type: none"> ▪ Identify central issues. ▪ Determining relevant information. ▪ Recognize bias. ▪ Formulating appropriate questions. ▪ Analyzing cause and effect. ▪ Draw conclusions. ▪ Identify alternatives. ▪ Test conclusions.
Goal(s)	<ul style="list-style-type: none"> ▪ Annotate a scholarly book and primary source in preparation for class discussion, exam, and essay/research paper. 	<ul style="list-style-type: none"> ▪ 5- to 7-page analytical essay. ▪ Demonstrate proficiency in focus skill. ▪ Demonstrate understanding of key concept. 	<ul style="list-style-type: none"> ▪ 10- to 15-page research paper. ▪ Demonstrate proficiency in focus skill. ▪ Demonstrate understanding of key concept. 	<ul style="list-style-type: none"> ▪ Demonstrate reasoned judgment. ▪ Predict consequences.

Arts Department

Essential Skills: Understand and appreciate different perspectives, communicate effectively.

The Arts Department of The New School is a collaborative and interdependent community of resident artists and students working side by side as individuals and ensembles, coaches and teams, mentors and mentored, in creative processes that express individual arts, artist groups, and our community with integrity and responsibility. The mission of the department is to awaken, nourish, and encourage the visual and performing arts and the creative processes in all our students, and make the creative process accessible and integral to the students in their lives.

Our faculty are artists in their fields, performing their art in school and in the larger community. We are the first level of resources for our students. We are models, coaches and mentors.

We expect students to work with focus, persistence, and patience in practicing the creative process. We expect them to work responsibly with the facilities, tools, and material afforded us. We expect students to cherish the interconnectedness of our community, to support each other with honest reflection, and develop openness to hear and consider each other's realities. We expect the students to manage the inherent tensions of living and working in a community and in states of collaboration. We expect the students to live their lives with grace and creativity.

Arts courses are divided into three levels: Introductory (1), Advanced (2), and Honors (3). We like to think of these levels as corresponding to what we call The Idea, The Process, and The Object of art: The Idea inspires The Process of creating The Object.

Lower School and High School Curriculum

Introductory (1): The Idea

The purpose of Introductory arts courses is to engage the student with The Idea of being creative and artistic – that is, an artist. The formal evaluation of Level One students is by the Work /Play Ethic.

The Teacher Supports the Student:	Essential Skills
To be open to the possibilities.	Understand and appreciate different perspectives.
To take action - to do, to endeavor.	
To explore and follow their curiosity.	
To turn failures into new possibilities.	

<p>To develop awareness of what works or doesn't work for them.</p> <p>To listen to and watch others.</p> <p>To appreciate the ideas, processes, and objects of their own-making, as well as what others have made.</p> <p>To consider the objects of the past, to be aware of the objects being made now, and to imagine the works of tomorrow.</p> <p>To experience artistic collaboration.</p> <p>To let an idea manifest.</p>	
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Advanced (2): The Process

The purpose of Level Two courses is to fully engage the student in the creative process. The formal evaluation of Level One students is by the Work/Play Ethic.

The Student:	Essential Skills
<p>Will develop a better sense of what ideas will work for them.</p> <p>Will learn to self-reflect on their ideas and work, as well as seek out and integrate feedback.</p> <p>Will change behaviors and habits to facilitate the growth of their craft and technique.</p> <p>Will accurately adjust goals with their level of ability.</p> <p>Will seek out time to work beyond the course schedule.</p> <p>Will value the coaching and mentoring of a more experienced artist and/or director.</p> <p>Will show their works and express themselves with the appropriate respect for our culture and community.</p> <p>Will integrate the creative process into other endeavors in their lives.</p> <p>Will bring energy, thoughtfulness, and respect</p>	<p>Understand and appreciate different perspectives.</p>

to collaborative endeavors.	
Will participate by facilitating and supporting group goals.	

Honors (3): The Object

The purpose of Level Three courses is for the student to engage art as a serious possibility as a vocation for life or profession. The grading at Level Three is determined by formal evaluation of the objects produced.

The honors art student has discovered where, when, and how they find joy and satisfaction in doing their art. The advanced student knows what they want to do and have proven their ability to persist in achieving excellence and embodies a process of expressive, creative and aesthetic growth. The goal of the advanced student is to do work with the purpose and intent of declaring their unique selves. A product or products of college portfolios, performance auditions, senior exhibitions, dramatic productions, and/or AP portfolio quality is expected. This Level is for advanced visual art students, advanced musicians, and advanced dramatist that expect to practice their art in avocation or profession as a life endeavor.

The Student's Object:	Essential Skills
Expresses their integrity and freedom.	Communicating effectively
Shows a level of craft and technique only possible through a high level of focus, persistence, and patience.	
Demonstrates a possibility of professional accomplishment and success.	
Demands respect from their peers.	
Opens possibilities to other students, and even to Resident Artists.	
Implies a personal philosophy of art and life.	
Reveals a vision - a reality.	
Requires reflection and leads them, and others, to a greater self awareness.	
Asks others and themselves to see and consider something new.	

Evaluation

Work/Play Ethic (Introductory and Advanced Courses)

The Work/Play Ethic is based on how well the student enjoyed, focused and “flowed,” persisted, and patiently endeavored to do the creative process and complete other requirements of the course, such as delivering homework on time, working in their Sketchbooks, participating in discussions, and/ collaborated in group endeavors. Objects (works and performances) produced are never to be graded or evaluated as part of their course grade.

The Object (Honors Courses)

The Object, Product, Creation, Performance is all that is evaluated for a grade in honors courses. It is evaluated on how well it stands up to early college level work. See the above criteria under “Arts, The Object - Level Three.” The prerequisite for being at Level Three is that the student has consistently proven their Work/Play Ethic is at an optimum level.

Foreign Language Department

Essential Skills: communicate effectively (in writing and orally), understand and appreciate different perspectives, work collaboratively.

The Foreign Language Department at The New School offers Spanish, French, German and English as a Foreign Language (EFL). Foreign language instruction is available throughout the school, from grades 4 through 12. Grades 4, 5 and 6 receive an introduction to the foreign languages offered, Junior High students receive a year-long introductory course in the language of their choice (8th grade students are permitted to take a High School level 1 course if they are capable) and High School students are required to take two years of the same foreign language (three years is recommended). EFL students are required to take as much EFL coursework as needed to allow them to attend regular High School classes. Once they do not need to continue in the EFL program, regular English credit is counted instead as Foreign Language credit to complete the two credit requirement, and in addition, four credits of English are earned. Foreign students arriving with intermediate language skills are not required to take EFL classes, but are instead required to take six credits of English from the High School course catalog.

The Foreign Language Department recognizes two types of fluency in each language: *cultural* fluency and *linguistic* fluency, and strives to provide students with the oral and written skills needed to navigate the cultural differences he or she is likely to encounter. The ultimate goal is for students to be able to communicate, or share with others, information in their new language. Therefore, the Focus (Essential) Skills in the Department are:

Lower School Curriculum

Lower School courses are divided into an Elementary School class, a combined (grades 4, 5, 6) course where Spanish, German and French are presented during the year, and a Junior High (grade 7) course.

Elementary School

This is a combined grade--combined language course where 3 languages are presented over the course of the year. This introductory phase allows students to begin to develop correct pronunciation, build on their Latin-based vocabulary and think about their own foreign language choices in Junior High and in High School.

	<i>Linguistic</i>	<i>Cultural</i>
Skills:	Can speak and respond to simple sentences regarding: <ul style="list-style-type: none"> • Basic sentences involving being, liking and having, both positive and negated sentences in the present tense • Identify and recall basic thematic vocabulary of numbers, colors, foods, family and self 	Enrichment and deepening of experience of: <ul style="list-style-type: none"> • Current events • Literature and Film • Political history • Pop culture icons • Entertainment figures
Goals:	• To be introduced to Spanish, German and French languages.	• To create an interest and provide information on other cultures

Junior High: Grade 7

	<i>Linguistic</i>	<i>Cultural</i>
Skills:	Can speak, read, write and understand simple sentences regarding: <ul style="list-style-type: none"> • The present tense involving actions of being, liking, having, eating, speaking, making • Thematic vocabulary of colors, daily activities • Proper pronunciation 	Enrichment and deepening of experience of: <ul style="list-style-type: none"> • Geographic range • Foods, Daily activities • Similarities and differences • Entertainment figures
Goals:	To prepare them for Level 1 High School Foreign language class with proper pronunciation and introductory verbal (oral) skills	Develop an understanding of the world where the target language is spoken

High School Curriculum

High School Courses are offered to grades 8 through 12 and are divided into three levels: Introductory, Intermediate, and Advanced, each corresponding directly to years 1, 2 or 3. As a year long program or as a two-to-three year long program in High School, foreign language acquisition by a student is a building and developmental process; with the exception of the first level, a fundamental ability of the previous level is needed to successfully move on to the next level. As such, there is a prerequisite that the student have the basic knowledge needed to participate in Levels 2 and 3. A description of the concepts covered and needed for each level are listed below:

Introductory (1) – Spanish 1, French 1, German 1, English as a Foreign Language 1

	<i>Linguistic</i>	<i>Cultural</i>
Skills:	Presentation and use of the following grammar concepts: <ul style="list-style-type: none"> • Salutations, presentations, name, age, 	<ul style="list-style-type: none"> • Familiar with basic geography of selected area(s) (mountains, rivers, oceans...) • Familiar with major cities, regions and

	<p>nationalities, alphabet, ordinal and cardinal numbers</p> <ul style="list-style-type: none"> • Basic thematic vocabulary groupings of foods, family members, pets and favorite animals, colors, school classes and classroom items, time, weather, furniture, directions, adjectives, genders, professions, emotions, basic prepositions, possessive pronouns, subject pronouns • Building block verbs in the present tense, including regular verbs of daily activities and irregular verbs--to be, to go, to have, to make • Immediate “tenses” (immediate future--<i>I am going to....</i> and immediate past--<i>I just...</i>), where applicable • Introduction to past tense construction • Question constructions and negation 	<p>their national customs</p> <ul style="list-style-type: none"> • Familiar with important holidays, religions, sports, foods, songs, dances • Familiar with basic historic and current figures • Familiar with contemporary events and major country developments
Goals:	<ul style="list-style-type: none"> • Can speak, read, write and understand simple sentences and tourist phrases in the foreign language • Can identify relevant parts of speech (grammar) 	<ul style="list-style-type: none"> • Become aware of the global areas where the language is spoken and understand that there are both similarities with and differences between foreign countries and the student’s native country

Intermediate (2) – Spanish 2, French 2, German 2, English as a Foreign Language 2
Level 2 provides a deepening continuation of the material above and:

	<i>Linguistic</i>	<i>Cultural</i>
Skills:	<p>Presentation and use of the following grammar concepts:</p> <ul style="list-style-type: none"> • Direct and Indirect object replacement pronouns • Past tense(s) • Future tense • Reflexive verbs • Passive sentence construction • Comparisons and superlatives • Paragraph and essay construction • Subordinate clauses, complex sentences • Greater fluency through continued practice of Level 1 and 2 material 	<p>Enrichment and a deepening experience of:</p> <ul style="list-style-type: none"> • Arts, sports, entertainment and political figures • Entertainment and film • Deeper understanding of the governing methods of the regions • Greater understanding of the similarities and differences between foreign country and native country
Goals:	<ul style="list-style-type: none"> • Can speak, read, write and understand simple and complex sentences, create paragraphs and descriptive reports in the target language 	<ul style="list-style-type: none"> • Become familiar with day-to-day life and current events in a foreign country

Advanced (3) – Spanish 3, French 3

Level 3 provides a deepening continuation of the material above and:

	<i>Linguistic</i>	<i>Cultural</i>
Skills:	Can speak, read, write and understand simple and complex sentences regarding: <ul style="list-style-type: none">• Imperfect, pluperfect, conditional, compound tenses, subjunctive mood• Thematic vocabulary specific to literary lesson (film, legends, literature)• Idiomatic expressions	Enrichment and deepening of experience of: <ul style="list-style-type: none">• Current events• Literature and Film• Political history• Pop culture icons• Entertainment figures
Goals:	<ul style="list-style-type: none">• Can create and translate fiction, non-fiction, creative writing, written reports and present longer oral presentations	<ul style="list-style-type: none">• Experience and understand literature, and historical and current information

Health and Physical Education Department

Essential Skills: Persist in achieving quality, work collaboratively, make connections and be aware of context, think and act ethically, solve problems, act in the benefit of the community.

The mission of the Health and Physical Education Department at The New School has four main components: 1) to teach students the basic rules and skills needed for a variety of active games so that they may enjoy the mental and physical benefits derived from physical exercise; 2) to develop a habit within the students for current and life-long regular physical exercise; 3) to increase their understanding of their own body and the choices and consequences they face regarding health, and finally, 4) to cultivate the students' appreciation for the mind-body connection.

The Physical Education (PE) portion of the department offers three levels of courses. Level I, or Introductory, courses are offered for elementary, junior high and high school students. These courses include exposure to a range of physical activities. Level II, Advanced, courses are offered for high school students only. These courses are more focused, usually on just one main sport. Health classes begin in eighth grade with a Level I course. High school students are offered Level I and Level II Health class options.

Each Health and PE teacher chooses one or two essential skills on which to focus in each class. For example, an Introductory PE class may work on "Persist to achieve quality," while an Advanced class may be more concerned with "Make connections and be aware of context," which is part of game strategy.

Key PE Concepts:

- Planning, warming-up and stretching before activity.
- Playing offense: "reading" defensive formations, making assists, getting open, using strategies & setting plays.
- Being aware of time constraints, how to use time-outs effectively, & understanding the implications of time remaining.
- Developing bodily awareness; preventing & treating injuries.
- Playing defense: blocking, guarding, anticipating offensive moves, using man-to-man & zone defenses.
- Knowing rules & penalties for different games.
- Understanding psychological aspects of competition.
- Being "in the zone."

Key Health Concepts:

- Genetics
- Fitness
- Stress management, coping mechanisms & relaxation techniques
- First aid CPR
- Human anatomy and physiology
- Nutrition
- Life-style choices & consequences
- Peer pressure, advertising and societal pressures

Lower School and High School PE Curriculum

Introductory (1)	Advanced (2)
<p>Has or is developing basic <u>physical</u> skills, such as:</p> <ul style="list-style-type: none"> Throwing a ball Catching a ball Kicking a ball Eye-hand coordination Eye-foot coordination 	<p>Is now practicing to improve basic physical skills, & is also working to develop more advanced and precise physical skills, such as:</p> <ul style="list-style-type: none"> Throwing to a moving player Catching a poorly thrown ball Kicking farther <p>Has developed physical skills to the level of competitive play.</p>
<p>Has or is developing basic <u>strategy</u> skills, such as:</p> <ul style="list-style-type: none"> How to make offensive maneuvers such as fakes to break open & get free How to assist teammates How to block opposing team members 	<p>Is now practicing to improve these skills, & is working to develop more advanced and precise strategy skills, such as:</p> <ul style="list-style-type: none"> How to carry out coordinated & planned team plays How to defend through either man-to-man or zone defense <p>Has developed strategy skills to the level of competitive play.</p>
	<p>Is beginning to synthesize his/her knowledge of:</p> <ul style="list-style-type: none"> The game His/her own strengths & weaknesses His/her teammates strengths & weaknesses The opponents' strengths & weaknesses <p>This synthesis is now sufficiently developed for the student to play “in the zone” where physical skills, strategy, and synthesis all come together automatically and without thought.</p>
<p><u>Acts respectfully</u> towards own team, opponents & referees. <u>Acts ethically</u> at all times.</p>	<p>Continues to act respectfully & ethically, & to demonstrate good sportsmanship.</p>

	Is a respectful & ethical leader who exemplifies good sportsmanship.
	This student athlete may also begin to create innovative skills, moves, & strategies.

Lower School and High School Health Curriculum

Introductory (1)	Advanced (2)
Has not yet developed a clear <u>understanding</u> of the many factors that influence health, such as: Genetics Fitness Nutrition Stress management Life-style choices, such as: high risk driving, unprotected sexual activity, prolonged exposure to loud sounds, or use of drugs, alcohol, or tobacco.	Has a basic understanding of the many factors that influence health, but is now ready to explore one or two of these topics in more detail.
May have only developed minimal coping mechanisms to make healthy <u>choices</u> among the many options, temptations & peer pressures experienced in our society today.	Is now interested in learning advanced skills for making optimal choices.
Has not yet learned basic first aid, CPR, or other behaviors to <u>counter threats to health</u> .	Has a basic knowledge of this information, but is now ready to become Red Cross certified in one or more of these areas.

Computer Science Department

Essential Skills: persist in achieving quality, manage time and materials, work independently.

The Computer Science Department at The New School offers classes in the lower school and high school. The focus in the lower school is on gaining the computer skills students will need to succeed in high school. This includes Internet research skills, keyboarding, word processing, creating slide show presentations and spread sheet documents. An introduction to basic Mac operation, PowerSchool, Google Docs, and the school’s network is also included.

In the high school, students are trained on professional-grade software that will lead to marketable, job-related skills. Courses are offered at three levels: Introductory (1) Advanced (2), and Honors (3).

High School Curriculum

Introductory (1)

Skills	<p>Create original works as a means of personal or group expression.</p> <p>Interact, collaborate, and publish with peers, employing a variety of digital environments and media.</p> <p>Communicate information and ideas effectively to multiple audiences using a variety of media and formats.</p> <p>Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.</p> <p>Plan activities to develop a solution or complete a project.</p> <p>Advocate and practice safe, legal, and responsible use of information and technology.</p> <p>Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.</p> <p>Select and use applications effectively and productively.</p> <p>Troubleshoot applications and use the help feature.</p> <p>Transfer current knowledge to learning of new technologies</p>
Goals	<p>Create projects that demonstrate an understanding of the applications and skills learned in the class.</p>

	Present the project to peers using appropriate terminology.
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Advanced (2)

Skills	<p>Create advanced original works as a means of personal or group expression.</p> <p>Interact, collaborate, and publish with peers, employing a variety of digital environments and media.</p> <p>Communicate information and ideas effectively to multiple audiences using a variety of media and formats.</p> <p>Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.</p> <p>Plan activities to develop a solution or complete a project.</p> <p>Advocate and practice safe, legal, and responsible use of information and technology.</p> <p>Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.</p> <p>Select and use applications effectively and productively.</p> <p>Troubleshoot applications and use the help feature.</p> <p>Transfer current knowledge to learning of new technologies.</p> <p>Apply existing knowledge to generate new ideas, products, or processes.</p> <p>Apply existing knowledge to navigate complex applications.</p> <p>Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.</p>
Goals	<p>Create and manage a final project that demonstrates advanced understanding and knowledge of the applications and the skills learned in the class.</p> <p>Present the project to peers using appropriate terminology.</p>

Honors (3)

Skills	<p>Create advanced original works as a means of personal or group expression.</p> <p>Interact, collaborate, and publish with peers, employing a variety of digital environments and media.</p> <p>Communicate information and ideas effectively to multiple audiences using a variety of media and formats.</p> <p>Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.</p> <p>Plan activities to develop a solution or complete a project.</p> <p>Advocate and practice safe, legal, and responsible use of information and technology.</p> <p>Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity.</p> <p>Select and use applications effectively and productively.</p> <p>Troubleshoot applications and use the help feature.</p> <p>Transfer current knowledge to learning of new technologies.</p> <p>Apply existing knowledge to generate new ideas, products, or processes.</p> <p>Apply existing knowledge to navigate complex applications.</p> <p>Evaluate and select information sources and digital tools based on the appropriateness to specific tasks.</p> <p>Demonstrate and understanding of professional skills required by employers in the industry.</p> <p>Use models and simulations to explore complex systems and issues.</p> <p>Manage activities to develop a solution.</p>
Goals	<p>Design, organize and manage a project that demonstrates mastery in an area of the student's interest.</p> <p>Level 5 classes require one of the following demonstrations of mastery in addition to their course requirements: Research Paper and Exhibition.</p> <p>Research Paper and Science Fair Project.</p> <p>Outside Internship and Presentation.</p> <p>AP Test.</p>