



# Curriculum Guide

*A Guide to Vista Academy's Philosophy,  
Academic Program, and  
Understanding of the Gifted Adolescent*

## Mission Statement

Vista Academy at Open Window School nurtures and challenges students of high intellectual ability and inspires them to new levels of academic excellence, creativity, and personal accomplishment for participation in a diverse and changing world.

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## ***Mission Statement***

Vista Academy at Open Window School nurtures and challenges students of high intellectual ability and inspires them to new levels of academic excellence, creativity, and personal accomplishment for participation in a diverse and changing world.

## ***Statement of Philosophy***

At Vista Academy, we believe that a deep understanding of the needs and passions of gifted adolescents is vital for fostering a spirit of inquiry and sense of personal responsibility in middle school students. Recognizing that Vista students are passing through a period of rapid physical, intellectual, social, and emotional change, our program is specifically designed to guide students through the critical developmental tasks of personal identity, independence, organization, and relationships. Vista offers a rich and dynamic academic program, with exceptional depth and challenge. With a curriculum that transcends grade level boundaries, Vista students are empowered to pursue their passions and to make important connections through problem-centered, interdisciplinary study and investigation.

Vista Academy's size provides a nimble and individualized middle school program, where outstanding educators partner with students in creating a sense of belonging and connection. This personal, nurturing environment allows faculty to promote all aspects of the middle school student's identity and development. Vista endeavors to provide students with relevant leadership opportunities, allowing for important connections to be made between their learning and the world around them. Learning is ignited through connecting classroom concepts to real life applications.

We strive to promote citizenship through the fostering of personal integrity, ethical awareness, and multicultural understanding. A Vista Academy graduate is a confident individual equipped with the habits and skills necessary for academic and personal success at every stage of life.

## *The Vista Academy Graduate*

The nine traits below provide tangible, evidence-based characteristics upon which our school is built. These Qualities, developed by our Education Committee, embrace the wide-ranging talents of Vista students, and support our mission and philosophy.

Explores subject matter in depth and breadth, and identifies areas of talent and passion as a basis for further study and potential career paths

Makes astute and insightful connections among ideas and concepts, and translates knowledge within the context of real world applications

Possesses organizational skills and habits, demonstrated in planning, time management, and prioritizing of responsibilities

Solves problems independently, using a variety of strategies to evaluate choices and make sound decisions

Exhibits positive social and interpersonal skills, allowing for effective collaboration, communication, and conflict resolution

Engages in meaningful leadership opportunities

Values the enriching qualities of a diverse community, and appreciates the perspectives of others who hold divergent views

Is developing a realistic awareness of self and an acceptance of personal strengths and weaknesses

Is well prepared for success in high school, equipped with the habits and advanced academic skills of a confident and committed student

## *Vista Academy Is...*

- A unique middle school serving the needs of gifted adolescents
- Greatly attuned to the complexities of the middle school child
- Small in size, allowing students to experience a nimble and innovative curriculum, with ample off campus experiences
- Encouraging of students digging deeper and exploring further, making connections and solving problems
- A well rounded academic program, with particular emphasis on mathematical and scientific thinking and processes
- A place where students will be in the company of intellectual peers
- An institution guided by dedicated teachers who pay attention to all aspects of the student's identity
- Built on the strong tradition of educational excellence of Open Window School

## *A Unique and Exceptional Program...*

- By “Raising Floors and Eliminating Ceilings”, our curriculum provides countless opportunities for students to extend their learning while meeting their needs at an appropriate level of challenge
- Extraordinary depth and challenge in math and science
- Frequent laboratory science
- Challenging and complex math beginning with pre-algebra concepts in sixth grade
- Extensive and sophisticated writing opportunities across the curriculum
- A small setting where every student is truly known
- Genuine leadership opportunities within a kindergarten through eighth grade setting
- Off campus opportunities that take students to unique experiences such as research labs, architectural firms, weather forecasting centers
- Frequent on-campus residencies, where scientists, artists and other professionals visit Vista and interact with our students
- Partnerships with leading arts and sciences organizations
- Time allocated each week for class meetings, advisory, study hall and electives
- A variety of unique extra-curricular offerings
- Teachers who will bond with each student and stretch him/her in new directions
- The Eastside's only private middle school program dedicated to the needs of gifted adolescents

## *A Middle School Specifically Designed for Gifted Adolescents*

Several key factors need to be considered when choosing the best middle school option for your gifted child. All middle school students are in a period of rapid transition. They are developing meaningful relationships, a personal and social values system, a healthy self-esteem and identity, and increasing independence from their families. All adolescents at this age need role models, supportive adults, and appropriate intellectual stimulation to ensure growth. Yet gifted adolescents have unique needs which go beyond these characteristics.

Gifted adolescents are often significantly more advanced than their peers in one or more academic areas, and have a greater capacity for deductive thinking. These students tend to have increased sensitivity to people and events, are more deeply introspective, and often display a higher sense of justice and fair play. Their actions and ideas are often influenced by heightened self-criticism, sensitivity, and intensity. Understanding these characteristics can help guide gifted students toward self-actualizing behaviors and emotional growth. They need to develop relationships with people who take them seriously and have similar awareness.

Their sophisticated abilities to conceptualize, seek alternatives, explore diverse relationships, make connections, and find creative ways of self-expression should serve them well come adulthood, but during adolescence, these same qualities may create, rather than solve, some unique problems.

Middle schools which cater to the needs of the gifted adolescent should be characterized by an integrated curriculum where students produce projects that demonstrate meaningful applications of the knowledge they are acquiring. Students should be investigating the questions that they themselves are asking about the world and their place in it. They need to be solving problems, making connections, asking questions, and taking risks. These characteristics are at the heart of Vista's curricular philosophy.

Vista Academy builds on the strong tradition of academic excellence of Open Window School, which has served the needs of gifted children for over 20 years. Our experienced faculty and staff are trained in best practices to maximize the boundless potential of this unique student population. Our small class size, commitment to individualized instruction, and curricular philosophy of "raising floors" and "eliminating ceilings" help us recognize, understand, and nurture the advanced abilities of the gifted adolescent.

Many schools advertise a rigorous curriculum and publicize their advanced coursework. However, few area middle schools cater exclusively to the unique needs of the gifted adolescent. This could mean the difference between an isolated, unmotivated and disengaged student, and a high achieving, passionate young scholar.

## ***Understanding Whom and What We Are Teaching***

Learning is ignited in the science lab, not in the science textbook. Mathematical connections are made within a real life context, not through problem after problem on worksheets. Middle school is a living, breathing thing, not a physical building.

Recognizing that we teach children and not subjects, it is of paramount importance that we understand the talents, complexities, and changes within the middle school student. Middle school students –

- are fiercely independent, yet yearning for meaningful relationships with adults
- reveal emotional vulnerability, yet are deeply self-protective
- are capable of complex analytic thinking, yet can be disorganized
- are compassionate and altruistic in the desire to make the world a better place, yet are capable of striking out cruelly at a classmate
- are able to understand and accommodate the needs of others, yet can display self-centeredness
- can worry us and astonish us at the same time
- are naturally broadening their focus from a family-oriented context to school, peer, and community-oriented contexts

Nimble and individualized, Vista Academy's size and structure will provide myriad opportunities for –

- ▶ ***Competence and Achievement***
- ▶ ***Self-definition***
- ▶ ***Creative Expression***
- ▶ ***Physical Activity***
- ▶ ***Positive Social Interactions with Adults and Peers***
- ▶ ***Structure and Clear Limits***
- ▶ ***Meaningful participation in family, school, and community***

*Seven Conditions that Young Adolescents Crave  
From Educational Leadership, April, 2006*

Further, we believe that early adolescence should not be defined only as a time of turmoil; it can also be a period of tremendous resilience, productivity, cognitive growth, generosity, and increased involvement in school and community. To this end, students need choices in school projects and activities, and they need opportunities to discover and hone their own learning styles.

At Vista Academy, we believe that adolescent learning tends to be more multi-layered and episodic than linear, and that students learn more when teachers take off the evaluation hat and hold up a mirror, helping them analyze their performance and compare it with stated expectations.

### *Raising Floors, Eliminating Ceilings*

Vista's core curriculum takes a rigorous and innovative approach to mathematics, language arts, science, social studies and Spanish, with technology integrated throughout. The development of yearly themes and essential questions shape and focus our program, providing our students with a cohesive and relevant middle school experience.

The mathematics and science programs emphasize both a hands-on and minds-on philosophy of learning, with a heavy emphasis on inquiry. Language arts incorporate expository writing, technology and literature. Strong writing and critical thinking are key components of our program. The curriculum is challenging in recognition of our students' high ability. For those who are ready for more, Vista Academy offers opportunities for increased complexity and acceleration.

Vista Academy's academic program is strong in all areas, with special emphasis in math and science, where students will be given unique opportunities to dig deeper and explore further. Textbooks explain, but they do not create. Math and science courses need to be structured in such a way as to allow students to think like mathematicians and scientists. At Vista, students will discover that mathematical and scientific concepts grow out of everyday experiences and concerns we share. They will explore the similarities and differences between how one persuades someone about an everyday concern and how one persuades someone about a mathematical or scientific truth. Further, students will gain an understanding of how scientific laws differ from mathematical axioms and definitions.

In addition to the core curriculum, we offer physical education, the arts, and leadership opportunities both on and off campus, allowing students to work with other professionals in relevant settings. Vista Academy guides

students to develop the knowledge, attitudes and skills they need to participate responsibly in an increasingly interrelated world. They benefit from project-based learning and cross-disciplinary activities, promoting skill application, collaboration, and decision-making.

Our students are deep thinkers and motivated learners, and they set high standards for themselves. Vista Academy fosters scholarship and citizenship, preparing its graduates for success in high school and beyond.

## Math

Our advanced math program begins with a strong foundational study of integrated algebra and geometry, where students work with, among other things, linear functions, inequalities, polynomials, statistics, and quadratic equations. Mathematics is a process of thinking that involves building and applying abstract, logically connected networks of ideas. These ideas often arise from the need to solve problems in science, technology, and everyday life, ranging from how to model certain aspects of a complex scientific problem to how to balance a checkbook.

As students move through Vista's program, their mathematics experience will focus on connecting their work with numbers and operations to more symbolic work with equations and expressions. Regardless of the mathematical concept, Vista students are counting, visualizing, comparing, estimating, measuring, modeling, reasoning, connecting, representing, using tools, and becoming mathematicians. We strive to produce independent thinkers who can analyze problems, select appropriate tools to solve them, and achieve conceptual understanding of the mathematics behind the algorithms through a real-world context.

Our challenging and accelerated math program includes both constructivist (learning that is initiated and directed by the student) and algorithmic (step-by-step) approaches. Students enjoy rich experiences with a variety of mathematical content. Students are introduced to important areas of mathematics, such as graph theory, probability, and transformational and Euclidean Geometry early in the middle school years so that they can see and explore the vast terrain of mathematics. The algebra strand is organized around functions, which are the cornerstone of calculus, and the structure of the real numbers, which brings coherence to the exploration of algebraic ideas.

This preparation puts Vista graduates on track for high school Advanced Placement (AP) courses like Calculus and Statistics, as well as International Baccalaureate (IB) course work.

## Science

Our inquiry-based approach to science refers to the diverse ways in which scientists study the natural world and propose explanations based on the evidence derived from their work. Research confirms that students learn best in an environment where they can make discoveries and actively construct their own understanding of science concepts.

Vista students participate in daily laboratory science, engaging in inquiry-based experiences that include both “hands-on” and “minds-on” activities. They develop knowledge and understanding of scientific ideas, as well as a comprehension of how scientists study the natural world. Vista students learn best in an environment in which they can make discoveries and actively construct their own understanding of new science concepts. Such research, along with classroom practice, has led to the development of a learning cycle to support teaching and learning through inquiry. The elements of this cycle include -

- Students and teachers **focusing** on the ideas students already have about a topic and developing new goals for learning through brainstorming and discussion
- Students engaging in hands-on **explorations** of objects, organisms, and science phenomena
- Students **reflecting on** and analyzing their observations and data, reviewing their original ideas related to the phenomena investigated, and developing new explanations for what they have observed
- Students **applying** their recently developed understanding of science concepts to new situations

Vista’s science program allows students to enhance their content knowledge through authentic inquiry and, from this experience, better help them design and develop their own scientific investigations. Students are able to critically analyze the data they gather, and engage in thoughtful scientific discourse around the data and their interpretation. They will benefit from a variety of off-campus experiences and on-campus residencies, interacting with scientists and researchers in a range of fields.

Vista graduates will enter high school well prepared for honors biology and chemistry, paving the way for Advanced Placement coursework in Biology, Chemistry, and Physics.

## Humanities

The Vista Academy humanities program integrates direct instruction in reading, writing, and communication with social studies, mathematics, the arts, the sciences and history. Our program develops the advanced skills in academic literacy necessary for success in high school. We understand that middle school students are establishing ideas about their learning that will be with them for the rest of their lives. They are seeking both concrete and abstract experiences. Vista students benefit from hands-on activities, group projects, inquiry processes and dynamic ways of learning. Vista’s

humanities classes build a bridge between the big ideas of society and the critical thinking fitting today's multi-cultural world.

## **Language Arts - Reading, Writing and Communication**

Throughout their Vista Academy experience, students will continue to develop the advanced skills of fluent readers. Literature circles, book groups and whole class discussions of novels will support topics being explored in history, mathematics, philosophy, the arts and the sciences. They will be aware of the author's craft and of their responsibility as readers. Using evidence from the text, students will discuss, reflect and respond to a wide variety of literary genres and informational text. Oral and written responses will require students to analyze, synthesize and evaluate information from multiple sources to deepen understanding of the content.

In addition to required reading from a variety of genres, students participate in an independent reading program during their three years at Vista. They are responsible for maintaining an annotated bibliography of their readings and sharing their recommendations.

Students will experience extensive instruction and practice in various forms of writing (expository, persuasive, essays, poems, short stories, reports, research papers, etc.) and language mechanics as they apply the 6 Traits of effective writing. Building vocabulary, critical listening, and editing skills are integral parts of the program. Students will have opportunities to publish and present their work and participate in authentic writing experiences like the creation of a student newspaper.

Speaking and listening skills will be taught across the curriculum through the presentation of projects, working with experts in the community, and a range of off-campus experiences and on-campus residencies.

Upon completion of Vista's language arts program, students will be ready for advanced high school coursework, including honors and Advanced Placement Literature and Composition, as well as AP English.

## **Social Studies**

The major themes in social studies that Vista Academy students explore include comprehensive instruction in history, geography, civics, government, and economics, beginning from the cradle of civilization up through United States Industrialism. Students will also investigate Washington State History more deeply, building on their fourth grade

learnings. Our social studies program features short simulations, interactive classroom activities, visual discoveries, global studies, current event discussions, and experiential exercises. Historical conversations and dialogue often center on primary sources and documents as students learn to think, question, and analyze like historians.

Students at this age are developmentally ready to dramatically deepen their understanding of the world and its peoples. They are equipped to sharpen their skills of description and analysis, comprehend the rights and responsibilities of citizens in a culturally diverse democracy, and contribute to the common good. Throughout the curriculum, a study of global problems and sustainability helps students understand the complexity of issues like population, poverty, consumption, and the environment.

Social studies education is critically important in middle school because historical understanding is a foundation for wisdom; geographic understanding promotes social and environmental intelligence; economic understanding supports wise decision-making in the distribution of scarce resources; and civic knowledge is the cornerstone of an effective democracy.

Students leave Vista Academy well prepared for opportunities to take Advanced Placement courses in World History, U.S. History, and American and Comparative Government.

## Spanish

Students receive three hours of Spanish instruction each week, as well as an hour of cultural immersion. Building on the scope and sequence of our elementary Spanish program, Vista students continue to develop their conversational skills, with a special emphasis on communication, vocabulary acquisition, and grammatical structure. Students gain some proficiency in Spanish writing, reading, speaking, and listening. Newspapers, movies, and a variety of hands-on projects increase exposure to the culture and lifestyles of different Spanish speaking countries.

Vista graduates should be able to enter high school taking Level 2 Spanish at minimum, with opportunities to gain greater proficiency through more advanced coursework.

## *Co-curricular Offerings*

### **Physical Education**

Physical Education offers skill development that can be applied to both individual and team sports. Students become physically educated as they develop leadership, cooperation, teamwork, honesty, and self-control. Students are introduced to basic fitness components like muscular strength and cardiovascular endurance. They participate in a variety of sports, competitive and non-competitive games, and recreational activities. PE is held three days a week for 45 minutes each session.

### **Health/Life Skills**

Our comprehensive health program emphasizes skills for life and healthy choices. The program addresses such issues as physical development, promotion of sexual health, prevention of disease, affection, interpersonal relationships, body image, and gender roles. Other topics include drug and alcohol education, nutrition, and positive peer relationships.

Life skills also include work on organization, time management, conflict resolution, goal setting, study skills, and test-taking skills.

### **Library**

At the middle school level, the library serves as an important resource for students. The content of library lessons will focus primarily on research skills, but will also include book talks, read alouds, creative writing, storytelling, and so on. Vista's block scheduling allows for flexibility in terms of students' visits to the library. We can adjust the frequency and duration of their visits to accommodate their changing needs.

Enrichment opportunities may include field trips to the public library to meet with Young Adult librarians and learn about King County Library System's (KCLS) extensive offerings. Further, local KCLS librarians frequented Vista multiple times to give book talks and share the latest in summer reading offerings.

# Technology

Each Vista student receives a laptop for their use at school. The laptops facilitate the learning process and serve as an important tool for organization, research, and communication. At Vista, we build technology education into the curriculum, as well as use technology to promote learning, so that all students become well informed about the nature, powers, and limitations of technology.

We strive to instill in students the responsibility of understanding how technology works, including its alternatives, benefits, and risks. These important lessons are developed as students accept the responsibility of new technologies around them. Technology is integrated into all facets of the Vista Academy Experience.

# Service Learning

Active participation in organized service is an important component of the Vista experience. Students foster civic responsibility while serving the needs of our school and community. Service learning opportunities may include campus projects like wetland restoration and the creation of a school garden, as well as community outreach with organizations like the King Country Green Schools program and the Mountains to Sound Greenway.

## *Other Programmatic Features*

### Vista's Middle School Schedule

- Block schedule lends itself to interdisciplinary study
- Ample time to dive into activities (hands-on instruction, lab experiments, extended class projects)
- A whole day most weeks dedicated to off campus activities and on-campus residencies
- Time allocated each week for electives, advisory, class meetings, and study hall
- Up to four hours of Spanish instruction each week

Research evidence is clear that a flexible block schedule is most beneficial to high quality middle school learning. Activities like simulations, group project work, debates, lab experiments and outdoor study work better in longer time blocks.

For a sample of Vista's middle school schedule, turn to page 27.

## Advisory Program

Advisory groups, led by a faculty member or Vista student, meet regularly to discuss issues pertinent to middle school students. The program fosters student-teacher relationships and provides a healthy social exchange and peer recognition in a safe and trusting environment. Topics range from reviewing organizational strategies and personal goal setting to addressing self-esteem and competence issues.

## Off-Campus Partnerships

The Vista experience expands far beyond the physical boundaries of the campus. Vista's off campus experiences take students to unique destinations like research labs, landfills, and engineering centers. Partnerships with leading arts and science organizations include Stone Soup Theatre, King County's Green Schools Program, the Mountains to Sound Greenway, the Center for Inquiry Science, and the University of Washington's Applied Physics Laboratory.

## Extra-curricular Activities

The Vista Experience continues after the final class of the day. A look around campus may find students constructing robots, performing a sound check in rock band, preparing for an academic competition, or gearing up for sports practice.

Vista Academy's extra-curricular activities are designed to meet the unique and wide-ranging interests of our students, and may include some of the following over the course of the year:

*First Lego League*  
*Destination Imagination*  
*Future City* (engineering simulation)  
*Rock Band*  
*Math Counts*  
*Geography Bee*  
*Class Newspaper*  
*Technology*  
*Tennis*  
*Cross Country*  
*Martial Arts*  
*Chess Club*



## Sixth Grade Curriculum – *Adaptation*

The word *adaptation* has a host of meanings, with roots in the biological, physiological, and even ophthalmologic domains. At its core, however, *adaptations* focus on something modified to fit a changed environment. The shift from elementary to middle school requires a lot of adapting, as middle school students adjust to a new and exciting situation.

Our sixth grade theme of *Adaptation* spans all areas of the Vista experience. Students will study the adaptability of early civilizations in the ancient world, as well as the fascinating features of the Puget Sound. Sixth graders may debate Gilgamesh’s ability to adapt to his superhuman role in language arts, followed by students looking at a complex math problem from a new perspective.

Much like middle school itself, adaptability is a dynamic process in which the behavior and physiological mechanisms of an individual continually change to adjust to variations in living conditions. With a curriculum built around the theme of *Adaptation*, Vista students make interdisciplinary connections which require examining topics from multiple perspectives.

### *Math – Integrated Pre-Algebra/Geometry*

Sixth graders build a solid foundation of pre-algebra and geometry skills, incorporating the use of variables, probability, and statistics as they discover how mathematical ideas and concepts fit into a larger context.

Students are given a variety of problems to investigate, organized around key concepts. They are responsible for representing, analyzing, and generalizing a range of patterns with tables, graphs, words, and symbolic rules, and use graphs to analyze the nature of changes in quantities in linear relationships.

Sixth graders analyze the characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about

geometric relationships. They use visualization, spatial reasoning, and geometric modeling to solve problems.

### **Science – *Development of the Natural World***

In sixth grade, Vista student scientists embark on a hands-on journey to uncover the secrets of the fascinating natural world of Western Washington. They explore the tectonic forces creating our mountain ranges and then study how life has adapted to survive in such diverse settings as the marine waters of Puget Sound and above the tree line on our highest mountains. They study the physics principles that create our unique weather on Cougar Mountain and how planetary motion affects our seasons and tides. By the end of sixth grade, students gain an understanding of scientific principles interacting to create our natural world, laying the foundation for our seventh grade study of the cultivation of the area.

### **Humanities - *The Ancient World***

#### **Language Arts**

Reading, literature, writing, grammar, and vocabulary are all components of a successful language arts program. Students read books and short stories from a variety of genres, including mythologies, legends, biographies, plays, and poetry. Book studies may include *The Odyssey*, *The Ramayana*, *The Epic of Gilgamesh* and *Aesop's Fables* and investigations into the lives of Plato, Pericles, and Tiberius.

Sixth graders are responsible for working with a variety of writing types, including expository, persuasive, poetry, narratives, multi-paragraph essays, and research related work. Students also publish a class poetry collection.

Students study vocabulary and etymology through exploration of Greek and Latin roots, and also participate in a formal differentiated vocabulary program.

#### **Social Studies**

Vista students investigate World History from the rise of civilization and early humans to the River Civilizations of Mesopotamia, Egypt, and Kush. Students also examine life in Ancient China, Egypt, India, Greece and Rome.

In addition, our social studies program emphasizes global issues and sustainability education for our ever changing and complex world.

For more detailed information on the sixth grade curriculum, please turn to the curriculum map section beginning on page 23.



## Seventh Grade Curriculum – *Cultivation*

*Cultivation* is defined as socialization through training and education. It is also used to describe the promotion or improvement of the growth of something by labor and attention. As Vista students “work the soil” both figuratively and literally, our seventh graders are juggling the increased academic demands with intensified physical, social, and emotional needs.

Vista’s seventh graders will study the emergence of Washington as a state, investigate Europe’s renaissance and reformation, embark on the travels of Marco Polo, and explore the diverse garden of life in science through an examination of cell biology and genetics.

### **Math – *Integrated Algebra/Geometry I***

This course provides students with a thorough investigation of advanced algebraic and geometric concepts, including linear and quadratic equations, inequalities, and polynomials. They grow in their understanding of patterns, relations, and functions. Students represent and analyze mathematical situations and structures using algebraic symbols, developing a conceptual understanding of different uses of variables.

A study of Euclidean geometry allows students to develop their logical deductive thinking skills while investigating spatial relationships both two and three dimensionally. Students create and critique inductive and deductive arguments concerning geometric ideas and relationships, such as congruence, similarity, and the Pythagorean relationship, and understand relationships among the angles, side lengths, perimeters, areas, and volumes of similar objects. Further, seventh graders apply transformations and use symmetry to analyze mathematical situations.

### **Science - *The Diverse Garden of Life***

In seventh grade, Vista student scientists explore biochemical properties that explain chemical reactions, cell biology, genetics, and multi-cellular life. The journey spans both time and space as they begin with the creation of elements inside distant stars and culminate with studying genetics during the cultivation of our own Vista Academy Garden. Students conclude the year examining the impact of water pollution on marine and freshwater life, providing a bridge to our eighth grade exploration of the responsibility of humans as stewards of our environment.

## **Humanities**

### **Language Arts and Social Studies – *The Medieval World***

#### **Language Arts**

Students immerse themselves in relevant readings from Medieval times, studying the likes of *The Canterbury Tales*, *The Rubaiyat*, *Don Quixote*, *Robinson Crusoe*, and *The Travels of Marco Polo*. In addition to this increasingly sophisticated reading, students are exposed to more rigorous writing experiences, including expository and creative essays, epic poems, autobiographies, and the composition of a full research paper.

#### **Social Studies**

Seventh grade continues the study of World History and Geography by focusing on the Islamic Civilization (600-1600), Europe (600-1600), African Kingdoms, Meso America and Japan.

Students will also take an in-depth look at Washington State History and Geography, exploring the emergence of Washington as a state, the state's experience during the Great Depression, World War II and post World War II, along with a study of contemporary Washington State.

Our conversation on global sustainability continues as Vista students discuss population trends, migration, and meeting essential human needs.

For more detailed information on the seventh grade curriculum, please turn to the curriculum map section beginning on page 23.



## **Eighth Grade Curriculum – *Responsibility***

The culmination of the Vista experience centers on the theme of *Responsibility*. Students continue to hone their leadership skills and community stewardship. Science emphasizes one's relationship with the environment, and much of the Humanities program focuses on students' mini thesis project. Oral presentations and debates are frequent components of the eighth grade experience.

Vista graduates carry with them the *responsibility* to not just know what it means to be nice, but what it means to be good.

### **Math – *Integrated Algebra/Geometry 2***

In this high school level course, students build on the comprehensive coursework in sixth and seventh grade to apply algebraic and geometric principles at an advanced and sophisticated level. Students understand and perform transformations such as arithmetically combining, composing, and inverting commonly used functions, using technology to perform such operations on more complicated symbolic expressions.

Vista student mathematicians specify locations and describe spatial relationships using coordinate geometry and other representational systems to examine special geometric shapes, such as regular polygons or those with pairs of parallel or perpendicular sides. Students understand and represent translations, reflections, rotations, and dilations of objects in the plane by using sketches, coordinates, vectors, function notation, and matrices.

### ***Integrated Algebra/Trigonometry 3***

For students ready for greater challenge, Vista offers an advanced algebra/trigonometry class. Trigonometry has important applications in many branches of pure mathematics as well as of applied mathematics. Students apply a variety of trigonometric identities, such as Pythagorean, sum and difference, and triangle (Laws of sines, cosines, and tangents). Further, students will approximate and interpret rates of change from graphical and numerical data.

## ***Science - Humans, Technology, and the Environment***

In eighth grade, Vista student scientists explore the complicated relationship between humans, technology and the environment. Students begin by studying how the human body functions in health and disease and then compare humans with other complex organisms. Students explore the human desire to explain natural forces and how this knowledge led to technological advances. Vista students study Newton's Three Laws of Motion through rollercoasters, rockets, and bridges, and investigate electricity and magnetism through circuits and LEGO Mindstorms engineering projects. Students complete their experience by studying urban planning, sustainable fishing, and forestry, and restoring the wetland area of our campus.

## **Humanities**

### **Language Arts and Social Studies – *The United States through Industrialism***

#### **Language Arts**

Eighth grade language arts incorporate and build upon the reading, literature, writing, grammar, and vocabulary from previous grades. Students read a variety of classic and contemporary American literature, such as *To Kill a Mockingbird*, *The Outsiders*, *Children of the River*, *Broken Bridge*, *The House on Mango Street*, *The Adventures of Tom Sawyer*, *The Glory Field* and *Animal Farm*.

The language arts program culminates with the creation of a mini-thesis, where students apply their writing and research skills to compose and present a formal document.

#### **Social Studies**

Eighth grade explores United States History and Government beginning with the founding, structure, rights and responsibilities of government. Students will explore differing political systems and foreign policy especially as it relates to the American Revolution, Constitution and the New Nation. They will study expansion and reform in America, the Civil War and Reconstruction, Industrialization, Immigration and Urbanization.

Our conversation on global sustainability continues as Vista students discuss their responsibility as global citizens, and provide possible sustainable solutions in areas like food, water, and energy.

For more detailed information on the eighth grade curriculum, please turn to the curriculum map section beginning on page 23.

# Math

	6 <sup>th</sup> grade – Integrated Pre-Algebra/Geometry  <i>Adaptation</i>	7 <sup>th</sup> grade – Integrated Algebra/Geometry I <i>Cultivation</i>	8 <sup>th</sup> grade – Integrated Algebra/Geometry II <i>Responsibility</i>	8 <sup>th</sup> grade - Integrated Algebra/Trigonometry III (accelerated option) <i>Responsibility</i>
<b>Units of Study</b>	<p>Slope intercept equations Linear functions Single variable equations Pattern representation and analysis of tables and graphs Probability</p> <p>Perimeter and area of polygons Three dimensional measurement Surface area and volume Expected value Rate, ratio, and proportion</p>	<p>Linear functions and graphs Pythagorean theorem Exponential growth</p> <p>Symmetries Polynomials Quadratic equations Samples and population statistics</p>	<p>Linear equations Quadratic functions Exponential equations Logarithms</p> <p>Conic sections Polynomial functions Binomial distribution Normal distribution Radical equations</p>	<p>Matrices Polynomial functions Binomial theorem Permutation and combinations Logarithms</p> <p>Conic sections Binomial and normal distribution</p> <p>Trigonometry</p> <ul style="list-style-type: none"> <li>Application of a variety of trigonometric identities, such as Pythagorean, sum and difference, and triangle (Laws of sines, cosines, and tangents.)</li> </ul>
<b>Essential Questions</b>	<p>How are patterns represented, analyzed, and generalized?</p> <p>What are the basic concepts of probability and how are they applied?</p> <p>How is coordinate geometry used to represent and examine the properties of geometric shapes?</p> <p>How do you draw geometric objects with specified properties, such as side lengths or angle measures?</p>	<p>How are functions identified and contrasted?</p> <p>What are the relationships among the angles, side lengths, perimeters, areas, and volumes of similar objects?</p> <p>Describe the sizes, positions, and orientations of shapes under informal transformations such as flips, turns, slides, and scaling.</p>	<p>How are mathematical models used to represent and understand quantitative relationships?</p> <p>How do you analyze and interpret one and two variable functions?</p> <p>How and in what ways do you use symbolic algebra to represent and explain mathematical relationships?</p>	<p>Describe the properties of classes of functions, including exponential, polynomial, rational, logarithmic, and periodic functions.</p> <p>What are the equivalent forms of expressions, equations, inequalities, and relations?</p> <p>How are trigonometric functions calculated?</p>

# Science

## 6<sup>th</sup> grade – *Development of the Natural World Adaptation*

## 7<sup>th</sup> grade – *The Diverse Garden of Life Cultivation*

## 8<sup>th</sup> grade – *Humans, Technology, and the Environment Responsibility*

### Units of Study

#### ***Puget Sound Geology***

- plate tectonics
- mountain range formation and earthquakes
- rock cycle
- minerals/soil types

#### ***Climatic Zones and Adaptations***

- lowland/subalpine/alpine ecosystems
- oxygen concentration
- requirements for life
- plant adaptations

#### ***Puget Sound Weather***

- air pressure/density
- cloud types
- convergence zone
- rain shadow

#### ***Planetary Motion***

- seasons and tides
- planetary motion
- projectiles

#### **Solar System Formation**

- Big Bang
- history of stars and planets
- formation of elements

#### **Atomic Theory/Chemical Reactions**

- the atom
- the periodic table
- elements, molecules, and compounds
- chemical reactions

#### **Cell Biology/Genetics**

- origin of life
- bacteria, animal, and plant cells
- genetics and evolution
- the Vista Garden

#### **Oceanography/Marine and Freshwater Life**

- salinity and ocean currents
- unicellular/multicellular life
- water pollution/stream monitoring
- salmon and marine mammals

#### **The Human Body/Comparative Animal Anatomy**

- organ systems
- health, disease, and medical treatment
- comparative anatomy
- genetics

#### **Newtonian Forces**

- Newton's 3 Laws of Motion
- rollercoasters and rockets
- towers and bridges

#### **Electricity/Magnetism/Machines**

- electric charge and field
- current, resistance, circuits
- magnets and magnetic field
- LEGO Mindstorms

#### **Technology and the Environment**

- urban planning
- fisheries
- forestry
- Vista Wetland Restoration

### Essential Questions

How do plate tectonics explain the formation of mountains in the Puget Sound?

How are plants specifically adapted to thrive in their climatic zone?

How do differences in air pressure create weather systems?

Why is it colder in the Northern Hemisphere when the Earth is actually closer to the sun?

What is the difference between a physical change and a chemical change?

How does the periodic table of elements show patterns in the properties of elements?

From a biological perspective, why is a cell alive, but a virus is not?

How does the theory of evolution explain fossils and modern living organisms?

How do toxic pollutants affect marine and freshwater life?

How do the organ systems of humans perform the essential functions?

How does the theory of evolution explain comparative anatomical structures between species?

How do Newton's Three Laws of Motion explain the movement of objects (billiard balls, automobiles, the Moon, etc.)

Why do electrons want to move through a circuit?

How are humans attempting to be stewards of the environment in Western Washington?

Harborview Medical Center, Seattle Aquarium, Northwest Trek, Guest Lectures from Physicians/Researchers, Museum of Flight, Boeing, Rock Climbing Gym, UW College of Architecture and Urban Planning, UW Dept. of Civil and Env. Engineering, Tacoma Narrows Bridge, Wild Waves, LEGO Mindstorms, US Fish and Wildlife Service, WA Dept. of Ecology, EPA Region 10, Simpson Tacoma Kraft Paper Mill, Vista Wetland Restoration

### Possible Experiences

Mt. St. Helens, Mt. Rainier, Snoqualmie Pass, Port Townsend Marine Science Center, Burke Museum, KING5 Weather Center, Univ. of Washington Depts. of Earth and Space Sciences, Astronomy, and School of Oceanography, LEGO Mindstorms

Pacific Science Center Planetarium, UW Astronomy Dept., UW Biochemistry Dept., Pacific Science Center Radical Reactions Show, Pond Microscopic Study, Seattle Toxicology Lab, Seattle Water Quality Lab, Bellevue Stream Monitoring, Herring's House Habitat Restoration, Whale Watching/Tall Ship Field Study, LEGO Mindstorms Vista Garden Creation

# Language Arts

## 6<sup>th</sup> grade – The Ancient World *Adaptation*

## 7<sup>th</sup> grade – The Medieval World *Cultivation*

## 8<sup>th</sup> grade – The United States through Industrialism *Responsibility*

### Vocabulary

Vocabulary Workshop Series *Sadlier*  
(students start work at appropriate level)

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### Reading

Latin and Greek roots (etymology)  
Stories from the Junior Great Books Series

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Students read at least 4 books during the course of the year.

Stories from the Junior Great Books Series

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Topics include –  
Mythologies, legends, classical literature, biographies, fables, plays, poetry, and primary and secondary sources

Readings may include –  
*The Canterbury Tales*  
*Epic of Kings*  
*The Rubaiyat*  
*Don Quixote*  
*Robinson Crusoe*  
*The Travels of Marco Polo*

Readings may include –  
*To Kill a Mockingbird*  
*The Giver*  
*The Outsiders*  
*Children of the River*  
*Broken Bridge*  
*The House on Mango Street*  
*The Adventures of Tom Sawyer*  
*The Glory Field*  
*Animal Farm*

Readings may include-  
*The Odyssey*  
*The Ramayana*  
*The Epic of Gilgamesh*  
*Aesop's Fables*  
*The Poetry of Sappho*  
*Aeneid*

Biography studies may include-  
*Empress Theodora*  
*Suleyman I*  
*Askia Muhammad Toure*  
*Empress Wu Chao*  
*Lady Murasaki Shikibu*  
*Pachacuti Inca Yupanqui*

Biography studies may include –  
*Plato*  
*Pericles*  
*Tiberius*

### Writing

Genres include -

Expository, persuasive, poetry, narratives, multi-paragraph essays (memoirs, reviews, compare and contrast), descriptions, letters, and a comprehensive, but short research report

Genres include -

Expository, creative, and persuasive writing, speeches, the epic poem, plays, autobiographies, journal entries

Genres include -

Expository, creative, and persuasive writing, short story, nonfiction, poetry, drama, responses to literature, personal narratives

Students publish a class poetry collection

Full research paper

Mini thesis

Writing conventions (mechanics, grammar, spelling), including editing, revising, and rewriting instruction

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### Grammar Resources

Integrated throughout  
Junior Great Books Series,  
6 +1 Traits of Writing,  
Write Source, Various Periodicals

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### Integration

Strongly tied to social studies, as well as other subject areas as much as possible

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### Other components

Oral presentations

Oral presentations, including memorizing and performing poetry and dramatic dialogue and debate

Oral presentations and debate  
Practice interview skills

# Social Studies

**6<sup>th</sup> grade – World History and Geography – The Ancient World**

## **Adaptation**

### **Units of Study**

#### **World History/The Ancient World**

- Early Humans and the Rise of Civilization
- River Civilizations (Mesopotamia, Egypt, Kush)
- Ancient India
- Ancient China
- Ancient Greece
- Ancient Rome

#### **World Geography**

- cartography
- spatial patterns and regions,
- interactions among people, environment and culture

### **Resources**

*History Alive – The Ancient World*

*Facing the Future: People and the Planet*

### **Essential Questions**

#### *Current Events*

What makes us human?

What does it mean to be civilized?

What is the best set of rules for people to live by?

How did early humans live and establish civilizations?

What were the major characteristics of Ancient India, China, Greece, and Rome?

Why do geographers create and use regions as organizing concepts?

What impact do elements of the physical environment, such as major bodies of water and mountains, have on countries and regions?

How do maps reflect changes over time?

**7<sup>th</sup> grade – World History and Geography – The Medieval World; Washington State History and Geography**

## **Cultivation**

#### **The Medieval World and Beyond**

- Islamic Civilizations
- Europe
- African Kingdoms,
- Meso America,
- Japan
- Imperial China
- Civilizations of the Americas
- Europe’s Renaissance and Reformation

#### **Washington State History and Geography**

- Emergence of Washington State
- The Great Depression and World War II
- Post World War II
- Contemporary Washington State

*History Alive – The Medieval World and Beyond*

*Facing the Future: People and the Planet*

*The Washington Adventure*

#### *Current Events/Election 2008*

Describe whether imperial China was really more advanced than feudal Japan and Europe.

How did contact with non-African civilizations help or hurt the kingdoms and empires of sub-Saharan Africa?

What changes in European life led to the birth of the Renaissance?

What was the Age of Exploration?

What are Washington’s major industries and issues of social and economic concern?

**8<sup>th</sup> grade – United States History, Government, and Civics**

## **Responsibility**

#### **United States History and Civics**

- Founding a Government
- Structure of a Government
- Rights and Responsibilities
- Differing Political Systems and Foreign Policy
- Revolution, Constitution, and New Nation
- Expansion and Reform
- Civil War and Reconstruction
- Industrialization, Immigration, and Urbanization

*History Alive – The United States through Industrialism*

*Facing the Future: People and the Planet*

#### *Current Events*

Can people be trusted to govern themselves?

Was manifest destiny just?

In what ways did the Civil War create a more perfect union?

Is immigration a benefit or a detriment to the United States? Explain.

How and in what ways were the 1920s “roaring” and the 1930s “depressing”?

2008.2009 Vista Schedule\*

	Monday		Tuesday		Wednesday		Thursday		Friday	
	6 <sup>th</sup>	7 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>
8:45 – 9:00	MS Assembly		Math	LA/SS	Math	Partnerships	SS	Math	LA	LA/SS
9:00 – 9:15	Study hall/ Open lab and library									
9:15 – 9:30	Spanish	LA/SS								
9:30 – 9:45										
9:45 – 10:00										
10:00 – 10:15										
10:15 – 10:30										
10:30 – 10:45	BREAK									
10:45 – 11:00	Math	LA/SS	Science	Class Meeting	Partnerships	LA	LA/SS	Spanish	Math	
11:00 – 11:15				Math						
11:15 – 11:30										
11:30 – 11:45										
11:45 – 12:00	SS	Math	SS	Class Meeting	Science	Spanish				
12:00 – 12:15										
12:15 – 12:30										
12:30 – 12:45	LUNCH								LUNCH	
12:45 – 1:00										
1:00 – 1:15	Science	Spanish	LA	Science	Partnerships	Spanish	Science	Spanish Cultural Fridays and Electives (alternating weeks)		
1:15 – 1:30										
1:30 – 1:45										
1:45 – 2:00										
2:00 – 2:15										
2:15 – 2:30	LA	Science								
2:30 – 2:45										
2:45 -3:00	PE	Advisory/ Life Skills/ Health (alternating weeks)	Life Skills/ Health	PE						
3:00 – 3:15										
3:15 – 3:30										
3:30 – 3:40	Dismissal				Dismissal					

\*subject to change



