

The Columbus Academy

MIDDLE SCHOOL 2018-2019



Course Description Guide for Grades 6 - 8

MIDDLE SCHOOL CURRICULUM GUIDE

Our mission is to embrace the whole person as an active and ever-changing learner. Our environment guides identity development, strengthens character, fosters individual interests, and supports young people taking healthy risks. Our students develop independence of thought and action, and accept responsibility for their choices.

We provide robust, hands-on programs that are balanced between adult wisdom and student exploration. As collaborators, students and teachers work closely to enhance academic offerings. Our advisories generate two-way communication that promotes the maturing voices of our students.

Each student assumes responsibility to self-monitor and self-motivate. Columbus Academy middle school students view themselves as being an integral part of a greater community through which they develop social responsibility. They reflect on their self-discipline, morality and character. They are engaged as citizens of Columbus Academy, local associations, and national communities through academic experiences, advisory experiences, and service programs.

The Middle School experience fosters essential habits: organization, cooperation, collaboration and perseverance. These skills are more useful and transferable than accumulated knowledge.

The partnership between families and faculty stimulates an appropriate sense of the student's independence. Middle School is a place for experimentation, and testing of boundaries. The Middle School community provides appropriate limits and appropriate consequences that lead the students to understanding their commitment to the community.

As students progress from concrete thinking patterns toward abstract thought, they are able to go beyond literal meaning to greater levels of critical thinking. The variety of curricular approaches supports the true love of learning.

COLUMBUS ACADEMY MISSION STATEMENT

Columbus Academy – an independent, coeducational college preparatory school – enriches its academic tradition of excellence by valuing a broad diversity of students as it seeks to develop the complete person: mind, body and character. The school rewards rigorous effort and accomplishment, fosters compassion, respect and moral courage, and insists on integrity, fair play and community service. Academy strives to develop and sustain a community of thoughtful, responsible, capable and confident citizens eager to engage in a pluralistic and ever-changing world.

ETHICS AND CHARACTER

Middle School students are constantly engaged in discovery, assessing who they are, and testing who they will be. The core values of Respect, Responsibility, Honesty, Compassion and Fairness in conjunction with Integrity and Moral Courage, are the platform for Character. The goal of the Ethics and Character program is the integrity we exhibit between professed values and daily choices

Columbus Academy uses its core values to shape the learning of its students. Students experience these values in the climate and culture of the school. Character develops over a lifetime, so the school community is engaged in a constant process of self-reflection and self-improvement directed towards fully realizing the principles that serve as our foundation.

MIDDLE SCHOOL LANGUAGE ARTS OVERVIEW:

The Middle School Language Arts Department strives to provide an environment that will foster students' appreciation for the nature, structure, and power of our language while connecting them to the world beyond classroom walls. Students closely examine diverse texts, write in a variety of styles and genres, engage in small and whole-class discussions, and use technology to expand their learning and find authentic audiences for their work. As a result, they become stronger critical thinkers, readers, speakers, listeners, and writers. Recognizing that each student learns at his or her own pace and with a unique learning style, the department differentiates lessons as appropriate. Students maximize their own learning potential as they explore how to develop, organize, and express ideas in an effective and purposeful manner.

SIXTH GRADE LANGUAGE ARTS:

The sixth grade Language Arts curriculum maintains a focus on developing and using literacy to communicate clearly and effectively with others. Through an integrated study of reading, writing, grammar, and vocabulary, students will engage in project-based learning using Design Thinking principles to apply life lessons from texts to real world problems.

THE SIXTH GRADE LANGUAGE ARTS PROGRAM ENABLES STUDENTS TO DO THE FOLLOWING:

- Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
- Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
- Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.
- Write arguments to support claims with clear reasons and relevant evidence.
- Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details and well-structured event sequences.
- Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose and audience.
- Engage in service-based learning connected to the course literature to enrich students' understanding of their community and world.
- Literature includes: *Cinder* by Marissa Meyer, *The House of the Scorpion* by Nancy Farmer, *Everlost* by Neal Shusterman, and *The Mighty Miss Malone* by Christopher Paul Curtis, and *No Place* by Todd Strassen.

SEVENTH GRADE LANGUAGE ARTS:

The seventh grade Language Arts curriculum provides a chance for students to explore the power, structure, beauty and uses of language. In particular, students investigate the meaning of “community,” exploring concepts such as stereotyping, identity, the power of one person to effect change and utopian societies. Consistent with their Social Studies classes, they seek to develop a sense of who they are amid the larger world, what responsibilities they have to others, and how they can make a difference. The seventh grade Language Arts course engages students with a variety of literary texts, developing their critical analyses of these texts, their writing, and the world around them. Additionally, a grammatical emphasis on sentence components and structure equips students with the necessary skills to evaluate their own writing more thoroughly. Beyond writing critical analyses, students create a short story, original poems, and creative projects as a means of exploring personal and global issues, particularly those themes connecting to the seventh grade Social Studies course.

THE SEVENTH GRADE LANGUAGE ARTS PROGRAM ENABLES STUDENTS TO DO THE FOLLOWING:

- Develop a thesis and write an analytical five-paragraph essay, including an introduction, body paragraphs and a conclusion, citing textual support for the thesis.
- Write persuasively and descriptively using supportive examples.
- Respond to text formally and informally.
- Use contextual clues to infer meaning and be able to write or draw definitions of new vocabulary words from text.
- Use various note-taking methods to paraphrase information covered and distinguish significant information from less important material, based on a topic.
- Practice analyzing text in order to convey understanding of literary techniques/concepts such as theme, symbolism, character development, plot, and irony.
- Develop a portfolio of his/her writing, review/evaluate progress made, and revise some work in order to improve it.
- Utilize the writing process, including pre-writing, drafting, composing, editing, revising, reviewing and publishing.
- Read a variety of genres, including memoir, non-fiction, realistic fiction and historical fiction.
- Understand the parts of a plot diagram and be able to write a story incorporating these parts.
- Read works that involve the themes of community and identity and be able to connect these themes to their own lives and others.
- Investigate questions posed by texts independently.
- Evaluate sources of information for relevance, authenticity and usefulness, incorporating their findings into their writing.
- Share writing with the class or peers for review and revision.
- Experience various modes of presentations, including the podcasts, four corners, playacting, video trailers, and individual readings.
- Literature includes: *The Giver* by Lois Lowry, *The Outsiders* by S.E. Hinton, *The Boy Who Harnessed the Wind* (Young Reader’s Edition) by William Kamkwamba and Bryan Mealer, and *I Am Malala*:

How One Girl Stood Up for Education and Changed the World (Young Reader's Edition) by Malala Yousafzai and Patricia McCormick.

EIGHTH GRADE LANGUAGE ARTS:

The eighth grade Language Arts course focuses on a variety of literary genres all centered around the themes of social justice and human rights in coordination with the eighth grade Social Studies course. There is significant emphasis on critical writing and analysis of the texts, and specifically on learning to write different types of essays in order to prove a thesis. Critical thinking and speaking skills are developed through class discussion as well as small group assignments and project-based learning. Grammar is primarily taught in conjunction with the improvement of writing, particularly to recognize grammatical errors in writing and to enhance the flow and cohesion of one's written work. There is a considerable emphasis on vocabulary development with each unit, also with the focus on improving word choice in writing. There are myriad opportunities for students to engage in creative writing as well, especially thorough poetry, short stories, journals, memoirs and technology-based projects.

THE EIGHTH GRADE LANGUAGE ARTS PROGRAM ENABLES STUDENTS TO DO THE FOLLOWING:

- Read and critically analyze numerous texts independently.
- Understand the historical significance of the assigned books through research and further inquiry.
- Develop, argue and prove original thesis statements in a variety of critical essays.
- Learn to connect themes and draw comparisons from a selection of texts and literary genres to the greater community and world.
- Utilize and expand understanding of vocabulary and grammar, especially within the assigned writing.
- Write more complex sentences, paragraphs and essays in order to fully examine the assigned topic in a deep and critical manner.
- Properly cite textual evidence to substantiate a thesis statement.
- Identify themes, symbols, motifs and conflicts to gain more significant understanding of a piece of literature.
- Formulate a logical outline and coherent organization of an essay.
- Create original voices, characters, and dialogue in creative writing.
- Develop an e-portfolio of student writing and assessments to track progress.
- Engage in project-based learning to enhance one's ability to work with a diverse peer group.
- Develop confidence in expressing one's opinion during class discussion and through public speaking opportunities and presentations.
- Literature includes: *Night* by Elie Wiesel, *To Kill a Mockingbird* by Harper Lee, *Animal Farm* by George Orwell, *Welcome to the Monkey House* by Kurt Vonnegut, and *Enrique's Journey* by Sonia Nazario.

QUEST: SKILLS FOR ADOLESCENCE:

Quest fosters the social competency skills of responsibility, decision-making, communication, self-confidence, and goal setting. The course is designed to allow students to be active participants, initiating their own learning in a natural way that draws on their innate curiosity. With an emphasis on interaction, students will work together to learn concepts, practice thinking and social skills, and discover the benefits of cooperating toward mutual goals.

SIXTH GRADE STUDY SKILLS

As a means of positioning our newest members of the Middle School for academic confidence and success, the Sixth Grade Study Skills class is designed to guide students in the awareness of their own metacognition as different approaches to reading, time management, organizing, and studying are explored. In this course, several essential questions are answered:

- What exactly are “Study Skills?”
- Where do I begin to organize my time, materials, and information?
- Are there some specific techniques that I can use to efficiently and effectively prepare for assessments?
- How do my reading and writing skills connect to study and organization?
- When can I incorporate my multiple intelligences into my learning process?

Each sixth-grade student spends one grading quarter enrolled in the Sixth Grade Study Skills class. Throughout the quarter, students participate in learning simulations, apply a variety of strategies in note taking, memory, writing, and reading to their current content area material, and become well-versed in Sean Covey’s *The Seven Habits of Highly Effective Teens*. The ultimate goal of the Sixth Grade Study Skills class is to provide students with resources and strategies that will assist them through their Middle School years and beyond.

Makerspace iDesign – Introduction to Engineering and Technology

iDesign is a quarter-long makerspace class which provides students with hands-on, problem-based learning opportunities that introduce the principles to develop, produce and assess products related to engineering and technology. Students have the opportunity to practice their creative abilities both individually and in group projects. Activities focus on content related to engineering and technology as a body of knowledge, and students will use a variety of resources to apply engineering design from the conceptual phase through to development of functional prototypes.

The course will culminate in large scale projects aimed at community service.

Course Objectives;

- Become familiar with the design process and learn creative approaches to problem solving
- Learn freehand sketch techniques to assist in creating and conveying design concepts
- Create 3D modeling parts, assemblies and technical drawings through the use of CAD software
- Apply best practices in using hand and power tools and utilizing material engineering
- Exercise practical application of mathematical skills through the use of statistics, measurement and unit conversion

MIDDLE SCHOOL MATH OVERVIEW:

In the Middle School mathematics program at Columbus Academy, students are engaged in courses ranging from Math 6 through Algebra or Geometry. Students partake in lessons, activities, and projects in which they explore parts of wholes, integers, algebraic reasoning, percentages, spatial reasoning, and data analysis.

Connecting to the Math Vision of Columbus Academy, all students in the Middle School will develop Problem Solving skills, Reasoning skills, and a Growth Mindset. To foster Problem Solving and Reasoning, students will take part in simulations, service opportunities, and classroom activities in which multiple strategies and multiple steps are needed to solve non-routine problems. Through differentiation of material, students will be provided with age-appropriate tasks that challenge each student while providing them with necessary support. These challenges will help to develop a mindset in which mistakes are valuable parts of the learning process and individual growth is a critical component of assessment.

MATH 6 COURSE DESCRIPTION:

By the end Math 6, students will master how to compute with fractions, decimals, integers, and percents while using these skills to solve equations, represent their knowledge on a coordinate plane, and solve real-world problems. There are five essential units of study in this course and Geometry is included in all units of study.

- Number Sense and Reasoning: Ordering, computation, and application of fractions and negative numbers.
- Algebra: Evaluating expressions, solving one and two-step equations and inequalities, and combining like terms.
- Decimals and Percentages: Ordering, computation, and application of parts of wholes and percent changes.
- Probability: Finding theoretical and experimental probability.
- Functions: Graphing equations on a coordinate plane and finding slopes and intercepts.

PRE-ALGEBRA COURSE DESCRIPTION:

By the end of Pre-Algebra, students will master how to solve equations, inequalities, and percent problems with multiple steps. There are five essential units of study in this course.

- Number Sense: Computation of integers, fractions, and mixed numbers combined.
- Data Collection: Creating surveys, finding measures of central tendency, and displaying data in various ways.
- Ratios, Proportions and Percents: Proportional reasoning, percent problems, and real-world applications.
- Expressions, Equations, and Inequalities: Solving multi-step problems and applying properties.
- Functions: Using slope-intercept form of a line, identifying domain and range, and understanding slope as a rate of change.

ALGEBRA COURSE DESCRIPTION:

By the end of Algebra, students will master how to solve complex equations, systems, and inequalities, utilize multiple forms of linear equations, and manipulate polynomials to solve equations. There are four essential units of study in this course.

- Equations and Expressions: Solving and evaluating multi-step expressions, equations, inequalities, proportions, and percent problems.
- Linear functions: Graphing, reasoning about linear equations in multiple forms, parallel and perpendicular lines, and slopes/intercepts.

- Inequalities and Systems: Solving and graphing linear inequalities, solving systems using graphing, substitution, and elimination, and solving equations and inequalities with absolute value.
- Polynomials: Adding, subtracting, multiplying, and dividing polynomials, factoring, applying the quadratic formula, simplifying radicals, and applying the distance and midpoint formulas.

GEOMETRY COURSE DESCRIPTION:

By the end of Geometry, students will master how to manipulate shapes and calculate angle measures, areas, volumes, and surface areas of a variety of figures. Logic and informal proof are embedded throughout the course. There are six essential units of study in this course.

- Coordinate Geometry: Ordered pairs, distance and midpoint formulas, and identifying angles and lines.
- Parallel and Perpendicular Relationships: Slopes, angles formed by transversals, and distance relationships.
- Triangle Relationships: Solving right triangles, using geometric mean, the triangle inequality theorem, trigonometry, and Pythagorean Theorem.
- Quadrilaterals and Polygons: Area and angle measures.
- Circles: Circumference, area, arcs, and angle relationships.
- Higher Dimensions: Solids including volume and surface area.

SCIENCE OVERVIEW

The goal of the Middle School science program is to teach students how to solve problems through application of the scientific method. Through this process students will learn that matter, energy, motion, and force have observable properties that can be measured, described, and predicted. They will learn that most natural events occur in comprehensible, consistent patterns. Further, students will understand that the interactions of these phenomena have an effect on life on Earth.

SIXTH GRADE SCIENCE

Sixth grade science is a lab-based experience which utilizes both our indoor and outdoor campus. Students learn the cooperative model of lab work through the three main branches of science: earth and space, physical, and life science. Their work models the reality that scientists from different branches work together to answer scientific questions. Students will be encouraged to develop their own exploratory and discovery-based questions when presented with different investigative experiments. The common thread developed through sixth grade is that of scientific literacy and inquiry.

- Understand and apply the steps of the scientific method
- Create and conduct scientific experiments
- Identify, describe, and classify properties of matter.
- Understand the characteristics of physical and chemical changes.
- Differentiate between various simple machines.
- Differentiate between kinetic, potential, and mechanical energy.
- Understand the purpose, function, and make-up of cells.
- Understand how cells work together in an organism.
- Explore how the Earth, moon, and sun interact.

SEVENTH GRADE SCIENCE

Seventh grade science is a spiral curriculum that focuses on topics within the Human Body, Introduction to chemistry and chemical equations, and Newton's laws of motion. They use technology as they apply the scientific method to gather and analyze data to understand how living organisms work. Students connect life science with environmental science as they build awareness of the interaction of organisms. A combination of hands-on labs and projects, including Organ Day, will connect students with professional scientists who come into the classroom to share their knowledge.

Conduct & refine scientific experiments and interpret scientific data.

- · Use scientific equipment for data collection.
- · Develop sample collecting techniques.
- · Understand and apply the concept of probability in genetics.
- · Differentiate between DNA & RNA decoding to build proteins.
- · Gain knowledge of the organization of the Human Body
- · Understand atomic theory, basic bonding and chemical interactions.
- · Master the basic properties of matter, including measurement, and chemical classification
- · Identify and use the periodic table to identify element trends, and group properties.
- · Relate velocity and acceleration to principles of motion
- · Use Newton's Laws of motion to create vehicles

EIGHTH GRADE SCIENCE

Eighth grade science students are immersed in the world of physical science with an emphasis on inquiry and data analysis. Using a combination of scientific literature and technology, students investigate topics such as matter, elements, chemical reactions, heat, waves and electricity. The scientific method/CER is ever present in this course, with a focus on problem solving, critical thinking and application of knowledge, mathematical functions and graphing techniques. Eighth graders will gain the skills required to make the phenomena of the natural world both predictable and measurable. Hands-on lab experience and classroom demonstrations allow students to be active in their learning, while discussions and small-group work enable students to be active and involved learners.

Design and conduct reliable scientific experiments, specifying variables

· Create and analyze scientific graphs

Respiration & Excretion

Fighting disease

Balancing equations, types of reactions, rates of reaction

Acids and Bases

- Explore circuits and current as the fundamentals of electricity
- Compare and contrast longitudinal and transverse waves
- Demonstrate basic principles of light and sound
- Understand energy conversions and heat transfer

MIDDLE SCHOOL SOCIAL STUDIES CURRICULUM

Overview:

The primary goal of Columbus Academy's Middle School social studies program is to enable students to understand that all people are connected in a dynamic and complex world. Students will learn the common features of civilization, as well as the unique characteristics and contributions of various countries and cultures throughout the world. The forces that affect culture (geography, interactions, technology, and movement) will be examined. Students will come to understand the events and trends that have shaped the United States, as well as how we fit into a much broader global community.

In the sixth-grade social studies class, students will investigate the following essential questions: How did the earliest civilizations begin, and how were they shaped by economic, political and social forces? What were the unique characteristics and accomplishments of various ancient civilizations? What has been inherited from earlier civilizations? How can we apply this knowledge to our lives? Particular attention is given to how governments and legal systems developed, and how people made use of their limited resources. Various activities and simulations (Archaeology Dig, Greek Naval Project, Build-Your-Own-Civilization), many utilizing technology, are geared to make the concepts relevant to students. Students will continue to develop the skills of critical thinking, public speaking, reading, writing, research, and collaboration.

Seventh-grade social studies focuses on the ever-changing world and the events, people, and forces responsible for creating that change. Through the study of Jared Diamond's theory of *Guns, Germs, and Steel* and the effects of colonization on the continent of Africa, students will begin to understand how past events, countries, and individuals have shaped our contemporary world. Students investigate human rights issues and the role government plays in the lives of its citizens. Other topics will include the modern changes brought about by the advancement of technology, global issues such as poverty, population, and the environment, and how these themes are interrelated. The students study influential people such as Gandhi and Mandela as they end the year examining the impact of the individual - the "power of one."

Through the thematic lens of conflict and compromise, eighth-grade social studies examines how people of different nations, identities and cultures interact with each other. Beginning close to home, students will consider how the American system of government, documents such as the Constitution, and the concept of citizenship reflect our national identity. The students will also create their own representation of American history by designing a monument in conjunction with our trip to Washington D.C. Moving into second quarter, we will explore the idea of "compromise" through the history of diplomacy in order to gain an understanding of the framework that exists for nations to negotiate difficult situations. We will then apply this knowledge to specific case studies of conflicts during the last hundred years that highlight different elements, as well as successes and failures of the diplomatic process. The case studies will serve as practice for our third quarter in-depth study of the Vietnam War, a conflict that provides a meaningful opportunity to delve into historical skills such as research strategies and primary document analysis. The year will culminate with the Cold War Trial, a group project that will allow students to demonstrate their ability to engage in diplomatic talks about real historical situations. As a whole, the course will challenge students to consider the meaning of global citizenship through conflict and compromise by relating these concepts to past and current events.

The Middle School Language Program is an integral part of the Columbus Academy World Languages Department. It offers language and culture instruction in order to enhance the students' educational experience. Our Middle School curriculum follows the American Council on the Teaching of Foreign Languages (ACTFL) Proficiency Guidelines. Through this style of learning, students will progress through a series of levels starting with Novice (Low, Mid, High) to Intermediate (Low) during their Middle School experience. Instruction utilizes various methods including comprehensible input (CI) and teaching proficiency through reading and storytelling (TPRS). These methods are student-centered to provide students a joyful experience in language acquisition. The goal is to instill in students an interest in the cultures of the languages they are learning, and to provide them with the tools that enable them to unlock their communication skills in another language. Through their study of language and cultures, the students develop open-mindedness, a sense of community, an appreciation of differences, and the ability to embrace multiple perspectives.

SIXTH GRADE

At the end of fifth grade, students have the opportunity to experience 4 mini-classes in Chinese and Latin, in addition to their ongoing study of Spanish. The goal of these mini-classes is to expose students to the three different languages offered at Columbus Academy and to teach them some of the cultural highlights and basic communication skills in a fun and creative environment. Following this experience, students and their families choose one of the three languages offered at Columbus Academy (Chinese, Latin, or Spanish) to pursue in Middle School.

In 6th grade, students learn to communicate about themselves, their families, and friends. They will be able to express likes, dislikes, hobbies, and professions. They will learn about music, culture, and art. The 6th grade program allows students to situate themselves within the language and the culture. Students at this level are typically identified at this level as Novice Low to Novice Mid. These courses foster the goals proposed by the American Council on the Teaching of Foreign Languages (ACTFL), including communication, culture, connections, comparisons and communities.

SEVENTH AND EIGHTH GRADE

In seventh and eighth grade, students continue their language learning begun in sixth grade. The Middle School World Language programs encompass the first level of language courses in which students continue to develop their speaking, listening, reading and writing skills with the goal of increasing their proficiency and cultural competency.

After successfully completing the middle school language sequence, students may earn promotion into Level 2 of the language for ninth grade.

SIXTH GRADE TECHNOLOGY CLASS

The sixth grade technology class meets once, during a six-day rotation, and gives students the opportunity to explore various tools for education. This course is dedicated to learning software applications, so students will be able to perform tasks required of them in other courses. The students use *Sunburst Type to Learn 4*, a web-based program, to further enhance typing speed and accuracy. Some of our projects and goals include:

- Internet safety and social media discussions
- Internet etiquette

- Google Apps: Docs and Sheets
- Typing an average of 25 WPM
- Creating stop motion videos and iMovies
- Combining photos in Photoshop
- Discussing a variety of presentation tools: Prezi, Slides, Haiku Deck, and Buncee

SEVENTH AND EIGHTH GRADE CODING

The formal coding program begins as a seventh grade allied class and continues in eighth grade. This sixty-minute class meets three times in a six-day rotation for seven weeks. In the class, students learn and practice programming vocabulary, block coding, problem solving and logic puzzles. The eighth grade coding class builds on the skills developed in seventh grade and introduces Scratch projects and Makey Makeys. Some projects and goals are:

- Program Spheros, Ozobots, Cubletes, and Makey Makeys (8th grade)
- Create code using blocks in code.org, Hopscotch, Tynker, Scratch Jr., and Scratch (8th grade)
- Problem solve using brain teasers and other logic problems
- Collaborate with peers through a variety of tasks
- Learn the basics of the hexadecimal numeral system and the binary number system

SEVENTH & EIGHTH GRADE S.T.E.A.M

The seventh grade S.T.E.A.M allied class meets four times in a six-day rotation for sixty minutes each session for seven weeks. It is a problem solving, hands-on course, integrating a multi-discipline (science, technology, engineering, art and math) approach using the engineering design process with focus on 21st century skills and purposeful connections made to relevant real-world applications. By the end of the rotation students will be able to identify important real-world problems and address them by meeting the following objectives:

- To understand the value of the engineering design process in problem solving
- To be proficient in creating detailed, reproducible, prototypes, incorporating several reiterations.
- To apply 21st Century Skills, emphasizing risk-taking and collaboration
- To become objective, critical thinkers understanding the value of communication and multiple perspectives
- To gain an introduction to common problem-solving technology such as basic structural design, CAD and robotics
- To practice in backwards-design and inquiry-based learning.

EIGHTH GRADE iDESIGN

Eighth grade students take an introduction to engineering class called iDesign. This Makerspace focused Allied class consists of a sixty-minute class that meets three times in a six-day rotation for seven weeks. The iDesign Allied provides students with hands-on, problem-based learning opportunities that introduce the principles to develop, produce and assess products related to engineering and technology. Students use a variety of resources

to apply engineering design from the conceptual phase through to development of functional prototypes. Projects include

- Multiple structural design challenges,
- CAD design and 3D printing,
- Create wall art using basic woodworking,
- Design solutions for a on-campus service
- Introduction to circuits and Robotics

FINE AND PERFORMING ARTS DEPARTMENTS OVERVIEW:

The goal of the Fine and Performing Arts is to foster students' art education in a positive and productive atmosphere. It encourages both creativity and critical thinking while expecting artistic excellence and self-discovery. It strives to develop the whole child through enjoyment, exploration, and understanding of Art, Music, and Theater. While developing this sense of artistic fluency, students learn multiple models of self-expression and cultivate their role in an ever-changing cultural environment; they learn that the Arts are an essential and enduring part of the global human experience.

ART

The Art program connects art with the world around us. It opens a world beyond textbooks for students to explore and builds a foundation for creative thinking. Students are encouraged to explore new techniques, seek deeper meaning out of their art practice, and establish a personal approach to their work.

We experience how the arts can cross disciplines to create an exciting statement. What is Creativity? Students are exploring what this 21st century skill means and how it can be practiced. We will look at Creativity as a means to generate ideas, make critical decisions, take risks, make mistakes, and work together. These practices are experiences to educate the whole child as they learn and grow through the ups and downs of adolescence.

In Middle School, we explore many different methods and media including drawing, painting, printmaking, sculpture, crafts, and digital art, as well as two- and three-dimensional design basics. Students acquire art language and concepts from both hands-on experiences and discussion and are exposed to multicultural art history references when appropriate. Assessment is based on hands-on learning, critical thinking skills, following a sequence of project steps, craftsmanship, and individual artistic voice and expression.

6th Grade projects build sequentially on skills acquired in the lower school art program. Art practices and techniques include: Right brain /observational drawing and Digital design.

7th Grade. Students will create a variety of projects transcending style, material, technique, and medium. We will look at how art can portray problems that humans have dealt with for centuries and interpret them in our own way. Art practices and techniques include: iPad photography and photo montage and 2D and 3D.

8th Grade involves a mix of technique and invention, fusing contemporary art movements with historical art practices. Students are expected to work independently while pushing beyond their former experience and begin to develop a personal approach to art-making within the structure provided. Art practices and techniques include:

PERFORMING ARTS

MIDDLE SCHOOL BAND

Sixth Grade Band is an introductory elective class encompassing basic instrumental technique. There are two mandatory concerts- winter (December) and spring (May). Students learn:

- tone production (posture, breath support, embouchure)
- articulation (staccato, accent, slur), rhythm (whole, quarter, eighths, dotted halves, and dotted quarters)
- rehearsal etiquette
- concert key signatures (F, Bb, Eb)
- time signatures (2/4, 3/4, 4/4)
- Bb Scale
- one line melodies, duets, and eventually full band arrangements.

Seventh Grade Band is an elective course dedicated to increasing musicianship and performance mastery. There are two mandatory concerts- fall (November) and spring (May). Students in Seventh Grade Band are also eligible to participate in OMEA Solo & Ensemble in the spring.

Students explore:

- continued tone production
- articulation (marcato, legato), rhythm (sixteenths, syncopation with eighths)
- concert key signatures and scales (Ab, F, chromatic)
- full band arrangements
- faster tempos
- chamber music project (3rd quarter)

Eighth Grade Band is an elective course dedicated to building musicianship to the entry level of the Upper School Concert Band. There are two mandatory concerts- fall (November) and spring (May). Students in Eighth Grade Band are also eligible to participate in OMEA Solo & Ensemble in the spring.

Students explore:

- advanced rehearsal techniques
- stylistic interpretation
- sight-reading skill
- complex rhythmic patterns (dotted eighths, triplets)
- concert keys (C, G, g minor), arpeggios (Bb, Eb, Ab)
- advanced meters (2/2, 6/8)
- increasing individual musical independence
- increasing awareness of the role within the section and the band as a whole

- Pep Band Project (3rd quarter) culminating in performance with US Pep Band at Pep Rally

MIDDLE SCHOOL CHOIRS:

Students will learn:

- How to sing alone and in a group
- Sight reading skills including solfege and Curwen hand signs
- Healthy singing, including breath support and quality of tone
- A variety of choral literature
- Proper music techniques including: note accuracy, articulation, diction, and posture

The chorus performs in at least two school concerts. Singers in this group are eligible to compete in the OMEA Solo and Ensemble Event.

Sixth Grade Chorus is an elective class in performance and musicianship. Performance skills include vocal technique and stylistic interpretation. Musicianship includes identification of keys, scales, meters, and intervals to develop rhythmic and melodic sight reading ability.

Seventh Grade Chorus is an elective class in performance and musicianship. Performance skills include vocal technique and stylistic interpretation. Musicianship includes identification of keys, scales, meters, and intervals to develop rhythmic and melodic sight-reading ability.

Eighth Grade Chorus is an elective class in performance and musicianship. Performance skills include vocal technique and stylistic interpretation. Musicianship includes identification of keys, scales, meters, and intervals to develop rhythmic and melodic sight-reading ability. This choir will learn how to sign up to four voice parts.

MIDDLE SCHOOL ORCHESTRA:

String orchestras for Grades 6-8 are regularly scheduled classes that meet during the school day. While divided into grade level sections for practice, these groups join together for performances. Students work toward playing with rhythmic and tonal accuracy and will develop good musicianship through scales, rhythm studies, teaching pieces, and performance literature. Through participation in this course, each student will improve his or her personal and group musical skills. A number of concerts, trips and competitions are planned for each year, making the program an exciting one.

CREATIVE EXPRESSIONS

Throughout their three years in Middle School students will take a course each year to foster their understanding and appreciation for the Performing Arts. Through project-based learning and hands on activities, we explore acting and oration techniques, experience music and movement, explore various "maker" disciplines in the performing arts, and create original performance pieces.

Grade 6:

- Learn the Tools of the Actor
- Experiment with Tactics and Objectives to make a truthful performance
- Use various devised theatre techniques to make original theatre pieces

Grade 7:

- Explore artistic concepts of physical scale, color, and texture through design
- Learn techniques for play analysis
- Use knowledge of simple machines and engineering to build puppets
- Learn how to tell a story with non-human objects

Grade 8:

- Amplify and build upon acting and oration skills
- Foster improvisation techniques
- Explore various creation methods and research the Performing Artists who created them in history
- Write and build original performance pieces

COLUMBUS ACADEMY PHYSICAL EDUCATION PROGRAM OVERVIEW:

The primary goal of Physical Education at Columbus Academy is to provide opportunities for students to learn skills that will enable them to create a healthy lifestyle. The acquisition of physical skill and knowledge provides a foundation for enjoyment of physical activity, fosters social development and promotes a physically active lifestyle.

Our curriculum is centered on three key teaching components:

1. Development of movement skills and overall fitness
2. Conceptual development of games and sport
3. Development of social skills

Physical education provides a unique setting to foster social skill development. Students learn appropriate social behaviors by working both independently and with others during activity. Concepts covered at every grade level to varying degrees are: how to provide positive leadership, how to follow, how to work together as a team, cooperation skills, positive communication skills, respect for others of all abilities and good sportsmanship skills.

SIXTH GRADE PHYSICAL EDUCATION:

Physical education in sixth grade introduces students to a variety of team sports. Students are able to take the basic concepts learned in elementary PE and apply them to sport specific activities. The major points of emphasis for all units is heavy skill development, which in turn is incorporated into small lead up games. When applicable, basic game strategies are introduced and highlighted through modified games. Physical fitness remains a constant in daily activities and students are encouraged to take ownership of their personal fitness.

Goals and Objectives:

1. To refine and improve eye-hand-foot coordination skills.
2. To gain body control through competitive activities
3. To participate in activities and games safely
4. To improve/maintain personal physical fitness.
5. To learn fundamental game concepts of competitive sports.
6. To demonstrate good citizenship in class and games.
7. To have fun.

SEVENTH AND EIGHTH GRADE PHYSICAL EDUCATION:

Physical education in the seventh and eighth grade reviews the basic sport skills and concepts taught in previous grades. Students have the flexibility to choose activities that are of interest to them through an elective system. Several lifetime sports activities are required, such as tennis, badminton, weight training, volleyball, swimming, personal fitness and softball to name a few.

Goals and Objectives:

1. To refine and improve eye-hand-foot coordination skills.
2. To gain body control through competitive activities
3. To participate in activities and games safely
4. To improve/maintain personal physical fitness.
5. To learn fundamental game concepts of competitive sports.
6. To learn activities that can be performed well into adulthood.
6. To demonstrate good citizenship in class and games.
7. To have fun.

MIDDLE SCHOOL TECHNOLOGY OVERVIEW:

All sixth grade students take a technology class, and students in eighth grade have the option of taking a coding elective for a semester. Columbus Academy students begin the 1:1 iPad program during the first quarter of sixth grade. Through the use of apps such as Notability, Google Drive, Google Classroom, and more, students have access to tools that will help them with note taking, organization, and creativity. Carts, each containing twenty MacBook Airs, are available for teachers to reserve for class time. Additional technology tools are available through the Middle School librarians.

SIXTH GRADE TECHNOLOGY CLASS:

The sixth grade technology class meets once during a six-day rotation and gives students the opportunity to explore various tools for education and work using a typing program. During each class, students are provided with time to work on improving typing skills in order to support future typing assignments in all subject areas. The students use the web-based program, *Sunburst Type to Learn4*, to practice typing. Some of our projects and goals include:

- Discuss safety and etiquette for using the Internet and social media
- Create a word cloud following a Digital Footprint discussion
- Explore Google Apps
- Reach a class average of 25 WPM
- Create stop motion videos, iMovies, and interviews
- Use Photoshop to create a collage
- Learn about a variety of presentation tools such as Prezi, Google Slides, and Buncee

EIGHTH GRADE CODING ELECTIVE:

The eighth grade coding elective class covers problem solving and is an introduction to programming. This class meets three times during a six-day rotation. Each class is fifty minutes. By the end of the semester, students will have a beginner's understanding of how programming works and knowledge of programming vocabulary by exploring these items:

- Program Spheros, Ollies, Ozobots, Cubelets, and Makey Makeys
- Create code using blocks in code.org, Tynker, Scratch Jr., and Scratch
- Problem solve using logic problems and brainteasers
- Collaborate with partners and small groups to achieve goals
- Learn the basics of the hexadecimal numeral system and binary code

MIDDLE SCHOOL SERVICE:

The Middle grades are all actively involved in service, most notably during the Kids-4-Kids Drives held in October and November. Advisories choose to sponsor a family for the winter season by providing needed clothes, winter items, household items, books, and toys to families in the greater Columbus area. Students organize, wrap, and package the collected items for delivery before Thanksgiving. Student take great pride in selecting items for the sponsored families.

During the food drive, Middle School students participate well beyond donating food. The 6th grade helps sort the food items by checking expiration dates, and then by organizing the food into a grocery store. Students learn about situations that often lead to some families needing more than others in advisory groups. In the 6th grade, students use the experience creating the grocery store, to explore topics in math class, such as data collection and analysis.

The 7th grade experience in Kids-4-Kids is more in depth, and it directly connects to themes of the Cycle of Poverty and the Power of One, as part of the 7th grade Global Studies curriculum. Likewise, in Pre-Algebra, students learn how to analyze food labels (percent) and explore topics related to nutrition and food insecurity statistics. The entire 7th grade takes a yearly visit to the Mid-Ohio Food Bank and does a variety of activities intended to simulate how quickly a family's circumstance can change. The 7th grade is tasked with shopping the school grocery, as set up by our 6th grade, using a food pantry model, to create two weeks of meals to deliver to sponsored families for the holiday.

8th grade students are involved with the clothing drive. Students help pack and organize the clothing, household items, books, and toys donated to the drive, and set up a store at the Childhood League for sponsored families to "shop" for needed items. While at the Childhood League, the 8th grade students move through stations that allow them to explore the various operations the League provides their clients.

EXTRA-CURRICULAR OFFERINGS:

Students who have genuine interest are encouraged to get involved in one or many of these activities. Through these activities, students can display their talents, build new relationships, develop skills and contribute to the Columbus Academy community.

MIDDLE SCHOOL PLAYS

Middle School students have the opportunity to participate in theatrical productions. Students will learn acting and technical skills in an environment that fosters acceptance and teamwork. All students who audition are cast. Students of any grade may be involved in the following technical aspects of the play; set construction, sound, costuming, props, lighting, or running crew.

MIDDLE SCHOOL SKI CLUB:

Open to all levels of skiers in grades six through eight. The club travels to Snow Trails five weeks on Friday afternoon/evening.

INTERSCHOLASTIC ATHLETICS:

Seventh and eighth grade students may elect to participate on our numerous athletic teams. The program fosters sportsmanship, builds teamwork, and teaches discipline and commitment. Through shared participation, during practice and games, athletes will develop the skills and strategies relevant to their chosen sport.

Fall: Football, Cross Country, Boys Golf, Soccer, Field Hockey, Girls' Tennis, Volleyball

Winter: Basketball, Swimming, Boys' Wrestling.

Spring: Lacrosse, Track, Baseball, Boys' Tennis.

MATHCOUNTS:

MathCounts is an after-school program for 6th - 8th graders that strives to engage students in fun and challenging mathematical problem-solving. Students play games, participate in scavenger hunts, and develop logical reasoning through play. In January, the MathCounts School Competition Exam is administered, and a group of students competes in the Columbus Regional MathCounts Competition in February. Students who are interested in the competition will be required to complete and submit additional practice each week.

SCIENCE OLYMPIAD:

Science Olympiad is a national program to introduce, challenge and increase our nation's global competitiveness in the application of Science, Technology, Engineering and Math (STEM). This is done at after school practices in which students apply their science skills to design, build and test. They represent Columbus Academy in local, regional and national competitions.

EDUCATIONAL SUPPORT SERVICES:

MIDDLE SCHOOL STUDENT SUPPORT SERVICES:

A team determination for placement of a student in Student Support Services is made following the Middle School Child Support Team referral and evaluation procedure. Any necessary classroom interventions are based on the degree of the student's documented need, availability of specialists, and motivation of the student to utilize services effectively.

Students in Middle School Support Services work with a specialist to develop strategies for improving and enhancing targeted skills. Specialists provide support for students through direct instruction in the students' targeted areas of need. Collaboration with parents and classroom teachers is best practices for support of students with learning differences. The ultimate goal of the Middle School Student Support program is to foster academic independence and self-advocacy for each student.

CONFERENCES & COMMENTS:

Students' learning is a shared responsibility of the adults in their lives. It is important that we communicate. Three times a year, parents and teachers meet for conferences. The first conference period comes a month into school, when the teachers have had time to get to know the students as learners. Two days are committed to these conferences that both parents and students attend. In late winter, we have two days of conferences that are led by students, and in May we have a full day of conferences between Parents and Advisors, as always, with the students' full involvement.

At the end of the first semester, every teacher produces comments that update parents on their child's progress. Comments can be written at any time, but these comments focus on areas of success and areas of challenge.

ADVISORY:

The Advisory Program of the Middle School supports the mission of Columbus Academy by creating an environment that supports the students both as individuals and as members of the greater community. The Advisory Program develops individual skills necessary for independence, self-advocacy, and successful integration into our society. It also promotes compassion, and tolerance and respect among students. The Advisory Program fosters positive relationships within groups, and advances the values of integrity, fair play and community service.

STANDARDIZED TESTING:

The Middle School gives the ERB assessments to our sixth, seventh and eighth graders. The results allow families to follow the children's progress over time. They allow the school to evaluate its curriculum and teaching priorities, and offers the opportunity for the school to evaluate itself compared to other fine schools in the nation.

FIELD TRIPS

Field Trips are essential for real world learning as well as giving the children the opportunity to develop independence and self reliance. Each grade has one extended overnight experience. The Sixth Graders go to Camp Willson to challenge themselves and bond with one another. The seventh graders go to Hueston Woods for a more self-sustaining and technology free experience. The eighth grade travels to Washington DC for the Museums, and to see the Federal Government in action.

AFTER SCHOOL OFFERINGS:

C. A. S. E. (Children's After School Experience): C. A. S. E. is an after school program for children in grades pre-kindergarten through five. Children may be enrolled for a regular full time schedule, or for one, two, three,

or four days per week. Drop-ins are also welcome. C. A. S. E. is available from 3:10 until 6:00 p.m. This program is provided at an additional cost. C. A. S. E. also offers specialty programming, ASA (After School Activity), with a variety of offerings that change every quarter.

Homework Club: a supervised hour of study for students in grades 2-5. A

Columbus Academy teacher is present for an hour to offer basic support for those students who may be in need of some minimal homework support throughout the year.

Strings: This program is offered to students in grades 2-5 after school throughout the school year. There is a materials charge. Instruction is part of the LS curriculum and covered by tuition. The lower school orchestra program has four levels and continues through Upper School. Lower School Strings perform concerts at school and at Sunrise Assisted Living.

STATEMENT ON DIVERSITY AND INCLUSION:

Columbus Academy believes that diversity, inclusion, equity, and justice are essential to the excellence of our community, culture, and curriculum. We recognize that the pursuit of this excellence requires thoughtful, deliberate, and sustained action and that this effort is critical to our educational mission.

Community: We value diversity in all of its dimensions including but not limited to gender, race, ethnicity, religion, sexual orientation, physical abilities, family composition, and socio-economic status. We seek to reflect multiple perspectives, backgrounds, and interests in all facets of our community. We recognize that students who are exposed to and embrace diversity are better prepared to engage in a pluralistic world.

Culture and Climate: We strive to be an inclusive community in which each individual feels safe, respected, and valued. In building a community that values similarities and differences among its constituents, we seek to embody in our actions and in our relations with one another the principles of equity and justice as well as Columbus Academy's core values of honesty, respect, compassion, responsibility and fairness.

Curriculum: We believe that exposure to multiple, and even sometimes competing, points of view best equips students to explore, understand and apply complex concepts, building the basis for a rigorous education. By weaving diversity into the fabric of our curriculum, we equip our students with the interpersonal and critical thinking skills that are essential to success in the complex, multicultural world in which we live.

Columbus Academy adheres to the National Association of Independent Schools (NAIS) Principles of Good Practice for Equity and Justice.