

iQ Academy Kansas

Middle School Course Catalog 2011–2012

Middle School Curriculum for Grades 7–8

iQ Academy provides a core 7th and 8th grade curriculum based on Kansas's state-approved middle school curriculum. In addition, a variety of elective courses are available in world languages, technology, physical education, art, and music.

- 7th and 8th-grade students must take all core courses, plus their choice of electives, for a minimum of five credits and a maximum of six credits per year.
- All core courses are two semesters long and receive 1 credit.
- Elective World Language courses are two semesters long and receive 1 credit.
- Other Elective courses may be one or two semesters long, receiving .5 and 1 credit respectively.

7th Grade Core Courses

Language Arts 7

Grade Level: 7

Through this exciting course, students will engage in an interactive, hands-on array of reading and writing activities designed to enhance and integrate literacy across all content areas—science, social studies, math, art, and more. Students will develop effective communication skills through listening, speaking, and writing via activities designed to strengthen vocabulary, improve grammar, and reinforce reading comprehension through strategy instruction. Students will gain a greater appreciation for literature while recognizing the application of new life-skills through reading and writing activities designed to teach and incorporate fun at the same time. Colorful and interactive activities will motivate and facilitate better reading and writing skills to keep students constantly engaged. Teacher-to-students, student-to-self, and peer-to-peer assessments will serve as constant benchmarks that facilitate the higher-order problem solving and collaborative skills required to meet academic and career expectations for years to come.

Math 7

Grade Level: 7

Pre-requisite: 6th Grade Math or Equivalent

Students will learn 7th grade math topics outlined below. The course draws from a variety of sources, including hands-on activities, interactive lessons, and practical math applications. **Semester 1** topics include: Integers, Exponents, Squares and Square Roots, Order of Operations, Comparing and Ordering Fractions, Place Value, Rounding, Comparing and Ordering Decimals, Conversion between Fractions and Decimals, Addition and Subtraction of Decimals, Solving Equations with Decimals, Connecting Fractions, Decimals and Percents, Percent of a Number, Percent of Change, Simple Interest and Solving Equations with Percents. **Semester 2** topics include: Mean, Median, Mode and Range, Probability, Combinations and Permutations, Lines and Angles, Triangles, Quadrilaterals and other Polygons, Perimeter and Area, Circles, Volume and Surface Areas, Transformations, Measurement, Graphs and Data Analysis, Ratios and Proportions, Number Concepts, Properties of Numbers and Variable Expressions, Patterns, Functions, Graphs, and Linear Equations and Inequalities.

Science 7

Grade Level: 7

This course will provide students with enlightenment and instruction on the nature of science, using a discovery process to teach the scientific method, and the use of metric measurements in scientific investigations. It covers the study of the universe, stars, constellations, and objects in the solar system. Movement and pathways of the earth and moon are investigated, with natural paths uncovered as students discover just how large the universe really is. Next, students will discover how earth materials are formed and what they can teach us about Mother Earth's past as they investigate the natural processes that shape its ecosystem, the landscape and the creation of different environments on earth. The course then covers basic concepts of force, motion, and equilibrium. Concepts of human biology are also uncovered, with emphasis on body systems and those amazing functions that contribute to our wellness. Agricultural science and its impact on biotechnology is introduced, along with its affect on human interaction with the earth. Finally, the basics of environmental science are covered, and through the use of stunning photography and lively animation, students will interact with endangered species, learn about natural resource use, environmental health, pollution, and biodiversity.

Social Studies 7

Grade Level: 7

Students will be taken through the disciplines of world history, landform and geography, money and economics, the powers and parallels of political science, sociology, and anthropology. Through hands-on tutorials and interaction with animation that brings this history to life, students will acquire the skills necessary to study and understand world cultures, while examining their unique physical features using state-of-the-art electronic geographic tools. Beginning with the mysteries of the ancient empires of the Americas, students will discover and understand the fall of the Roman Empire, the rise of the Franks in Europe, and uncover the enchanting Kingdom of Ghana. Students will be taken through Revolutionary Europe, then to the Industrial Revolution, Nationalism and Imperialism, and on to World Wars I and II. They'll discover the wonders of Colonial India, become informed about the United Nations as a peacekeeping and political force, the politics of the war in Vietnam, and past and current issues in the Middle East. Finally, they'll discover modern Africa and understand its history, to end with a broad but compelling introduction to the Information and Space Ages.

8th Grade Core Courses

Language Arts 8

Grade Level: 8

Students will learn to read critically with full comprehension across genres and be able to communicate through effective writing. As students develop critical reading and writing skills, they will make important life connections through the variety of material they study. Additionally, students will practice vocabulary, grammar, and listening skills with each weekly lesson. All material will be connected to a universal theme for each unit: Tolerance, Determination, Social Justice, Times of War, Search for Self, and Cultural Traditions. As students encounter a variety of text structures and multimedia, they will be able to see how these different things connect to one large idea and see how these large ideas connect across other content areas being studied. Each student will be required to engage in activities and assessments that require critical thinking skills and that meet rigorous academic expectations. As students complete this course, hopefully they will see the relevance that this course has in their daily life and future academic and career goals.

Math 8

Grade Level: 8

Pre-requisite: 7th Grade Math or Equivalent

This course provides a rigorous and comprehensive foundation for the 8th-grade student to enter high school Algebra. It introduces algebraic concepts and builds on prior mathematical knowledge. Students will review the basics of fractions, decimals, percents, and the order of operations. Students will be introduced to the set of integers and how to calculate with positive and negative numbers, number sets and properties, variables, and solving equations and inequalities. Students will learn some basic statistical concepts including data collection, analysis and graphing. Students will begin Coordinate Plane graphing, linear graphing and learn about functions. Students will move from Rational numbers into Irrational numbers while studying square roots and the Pythagorean Theorem for right triangles. The basic geometric concepts of triangles, polygons, perimeter, area, surface area and volume will also be introduced.

Science 8**Grade Level: 8**

This course provides a rigorous and comprehensive foundation for the 8th grade student about to enter high school science. It covers the relevant topics in all the major disciplines, building on prior knowledge and expanding on subjects introduced earlier in middle school. Students begin with a review of the scientific process and get more into depth with the idea of critical analysis of theories and experimental research. They will move on to discuss principles of physical science and energy in the life science portion of the course, students will cover structure and function of organisms, genetics, and evolution, and tenets of ecology. This will flow into the environmental science topics including earth's cycles and environmental problems. A brief discussion of the solar system will also be covered. Students will learn about the assigned topics through interactive activities, experimentation, discussion, and engaging text and animations. Graded assignments will be stimulating and thought-provoking, hopefully paving the way for future interest in the scientific disciplines: environmental health, pollution, and biodiversity.

Social Studies 8**Grade Level: 8**

Eighth grade students will build on their concepts of geography, civics, and political societies beginning with the world as it was in the 1500s followed by the natural unfolding of events from the explorations, the establishment of the colonies, the colonial era leading up to the causes of and including the French and Indian War and The Revolutionary War. The development of American government from a confederation to a constitutional one, the launching of the Republic, through the War of 1812, the growth and development of the nation through the Louisiana Purchase and the Lewis and Clark exploration on through Manifest Destiny and the Mexican War will follow. Students will explore the changes in the nation from immigration and abolition issues to the Civil War and Reconstruction, westward expansion, to the development of the U.S. as a world power and into World War I. They will explore the 1920s, the Great Depression, and World War II.

7th and 8th Grade Electives**MS Introduction to World Languages* CREDIT .5 Grade Level: 7, 8**

In this World Languages course students will be introduced to 6 different languages within 18 weeks. The languages in this course include Spanish, French, German, Latin, Chinese and Japanese. Each language will be taught in a period of 3 weeks. This multilingual course is designed to give students an opportunity to gain understanding of a language that they might want to further study in the future. Each language is equally represented, thus allowing the student to conceptualize and practice the language one at a time. The course takes a multi-perspective approach for teaching the culture of the people that speak the language along with fundamental communication skills in the target language. Activities that engage students and make language learning exciting and fun will be incorporated to build acquisition. The language will be taught using the communicative method which combines listening, speaking, reading and writing in the target language with the use of multimedia resources.

Introduction to Spanish CREDIT .5 Grade Level: 7, 8

Throughout this course, students will study basic Spanish, with an emphasis on structure, new vocabulary acquisition, original responses, and dialogues. Unit activities blend different forms of communication and culture. Course strategies include warm-up activities, vocabulary study, reading, threaded discussions, multi-media presentations, self-checks, practice activities and games, oral and written assignments, projects, quizzes, and exams. Learning activities in each unit are focused upon a specific theme. This course is neither the pre-requisite to, nor the equivalent of, the yearlong eighth grade Spanish course and is not intended to prepare students to advance to second year Spanish in high school. Although this course is not a pre-requisite to Spanish 1, it is highly recommended having this course which will facilitate a more rapid success in Spanish 1.

MS Spanish 1 CREDIT 1.0 Grade Level: 7, 8

Spanish 1 has been carefully designed to meet the standards of the American Council on the Teaching of Foreign Languages (ACTFL). These standards call for a method of teaching that focuses on successful communication through speaking, writing, reading, and listening, as well as a thorough grounding in aspects of culture. Each unit embodies all of these standards in accordance with the theories described in this document. Unit activities blend different forms of communication and culture to ensure that the student meets all standards. Course strategies include warm-up activities, vocabulary study, reading, threaded discussions, multi-media presentations, self-checks, practice activities and games, oral and written assignments, projects, quizzes, and exams. Learning activities in each unit are focused upon a specific theme.

Introduction to French**CREDIT .5****Grade Level: 7, 8**

Throughout this course, students will study basic French, with an emphasis on structure, new vocabulary acquisition, original responses, and dialogues. Unit activities blend different forms of communication and culture. Course strategies include warm-up activities, vocabulary study, reading, threaded discussions, multi-media presentations, self-checks, practice activities and games, oral and written assignments, projects, quizzes, and exams. Learning activities in each unit are focused upon a specific theme. This course is neither the pre-requisite to, nor the equivalent of, the yearlong eighth grade French course and is not intended to prepare students to advance to second year French in high school. Although this course is not a pre-requisite to French 1, it is highly recommended having this course which will facilitate a more rapid success in French 1.

MS French 1 CREDIT 1.0 Grade Level: 7, 8

French 1 has been carefully designed to meet the standards of the American Council on the Teaching of Foreign Languages (ACTFL). These standards call for a method of teaching that focuses on successful communication through speaking, writing, reading, and listening, as well as a thorough grounding in aspects of culture. Each unit embodies all of these standards in accordance with the theories described in this document. Unit activities blend different forms of communication and culture to ensure that the student meets all standards. Course strategies include warm-up activities, vocabulary study, reading, threaded discussions, multi-media presentations, self-checks, practice activities and games, oral and written assignments, projects, quizzes, and exams. Learning activities in each unit are focused upon a specific theme.

MS Algebra 1 CREDIT 1.0 Grade Level: 7, 8

The purpose of this course is to allow the student to gain mastery in working with and evaluating mathematical expressions, equations, graphs, and other topics in a year long algebra course. Topics included are real numbers, simplifying real number expressions with and without variables, solving linear equations and inequalities, solving quadratic equations, graphing linear and quadratic equations, polynomials, factoring, linear patterns, linear systems of equality and inequality, simple matrices, sequences, and radicals. Assessments within the course include multiple-choice, short answer, or extended response questions. Also included in this course are self-check quizzes, audio tutorials, and interactive games.

Art Appreciation 7 CREDIT .5 Grade Level: 7

Journey through time and place while examining some of the greatest masterpieces created. In this course, students will explore world regions and study the unique art and architecture that defines the Medieval and Renaissance periods. From Leonardo da Vinci to the Taj Mahal, participants will learn the fundamental concepts of art, how to look at and evaluate art, and the intended function of art museums through hands-on activities, discussions, written assignments, and objective assessments.

Art Appreciation 8 CREDIT .5 Grade Level: 8

Journey through time and place while examining some of the greatest masterpieces created. In this course, students will explore world regions and study the unique art and architecture that defines modern-day civilizations. From Picasso to Hiroshige, participants will learn the fundamental concepts of art, how to look at and evaluate art, and the intended function of art museums through hands-on activities, discussions, written assignments, and objective assessments.

Health 7 CREDIT .5 Grade Level: 7

This course is designed to teach lifetime health and wellness knowledge in order to prevent various psychological and physical disorders. Students will learn health information and practices, as well as experience implementing their newfound skills and knowledge. They will acquire the skills necessary to handle peer pressure, recognize unhealthy and risky behaviors and how to prevent and avoid them, and develop strategies for improving personal and community health. Students will gain an understanding of the relationships that influence one's health, as well as refusal and coping skills that play a major part in personal health. Quizzes, discussion sessions among peers, projects, and interactions will be assessed weekly to gauge content understanding. After completion of this course, students will understand and have experience practicing lifelong skills for lifelong health and wellness.

Health 8	CREDIT .5	Grade Level: 8	Career Exploration	CREDIT .5	Grade Level: 7, 8
-----------------	------------------	-----------------------	---------------------------	------------------	--------------------------

This course is designed to provide the student with the knowledge and skills that will enable him or her to achieve and maintain a healthful lifestyle. The student will learn health information and practices necessary to understand and manage many aspects of their physical, social, intellectual, spiritual, and emotional health throughout adolescence into adulthood.

In this course, students will learn about various careers that are available today. The students will complete self-evaluations to determine which careers are of most interest to them. Assignments, including research and interviews, will help give the student a hands-on approach to creating a plan for the future.

Music Appreciation 7	CREDIT .5	Grade Level: 7
-----------------------------	------------------	-----------------------

Through this online Music Appreciation course students will be exposed to many diverse activities and will learn a wide variety of musical concepts they will be able to use in their everyday lives for the rest of their lives. Students will learn foundational skills such as performing, listening, analyzing, and responding to music. Students will develop a sense of self-esteem by accomplishing activities that require higher critical thinking skills especially developed for their grade level. Integrated assignments incorporate other content areas of study such as: science, social studies, and math. The content studied will directly apply to other areas of study providing students with an additional enrichment experience they'll be able to take with them for a lifetime. Quizzes, discussion boards, projects, and performance activities will be assessed weekly to gauge content understanding. After completion of this course, students will have the knowledge to reflect on musical periods and styles, understand music's role in history, analyze and evaluate music, develop criteria necessary for making critical judgments and informed musical choices, as well as enhance their overall musicianship.

In this introductory course, students learn how to use Microsoft Word, Excel, and PowerPoint to create, analyze, edit, share and publish information for a variety of audiences and purposes. Through step-by-step tutorials and a project-based approach to learning, student become familiar with the key concepts and basic skills of today's information technology sector.

MS Computer Application A & B	CREDIT .5	Grade Level: 7, 8
--	------------------	--------------------------

In this introductory course, students learn how to use Microsoft Word, Excel, and PowerPoint 2000 to create, analyze, edit, share and publish information for a variety of audiences and purposes. Through step-by-step tutorials and a project-based approach to learning, student become familiar with the key concepts and basic skills of today's information technology sector.

Music Appreciation 8	CREDIT .5	Grade Level: 8
-----------------------------	------------------	-----------------------

Through this online Music Appreciation course students will be exposed to many diverse activities and will learn a wide variety of musical concepts they will be able to use in their everyday lives for the rest of their lives. Students will learn foundational skills such as performing, listening, analyzing, and responding to music. Students will develop a sense of self-esteem by accomplishing activities that require higher critical thinking skills especially developed for their grade level. Integrated assignments incorporate other content areas of study such as: science, social studies, and math. The content studied will directly apply to other areas of study providing students with an additional enrichment experience they'll be able to take with them for a lifetime. Quizzes, discussion boards, projects, and performance activities will be assessed weekly to gauge content understanding. After completion of this course, students will have the knowledge to critically analyze music, use proper music terminology to describe musical concepts, create music of their own, and enhance their musicianship.

MS Digital Photography	CREDIT .5	Grade Level: 7, 8
-------------------------------	------------------	--------------------------

In the Digital Photography lessons, students begin by learning general photographic concepts. Then composition skills are added to photographs and image-editing techniques are practiced. Students learn how to use layers, crop images, color and lighting concepts, hue and saturation, and exposures and special effects. Graphic design, artistic elements, and software skills are taught while producing graphic images. The concept of design as a manner of visual communication is carried throughout. Students build a portfolio of work and explore the fields of photography, graphic arts, advertising and illustration.

MS Web Design	CREDIT .5	Grade Level: 7, 8
----------------------	------------------	--------------------------

This one-semester course introduces students to the mechanics and elements of web design. Students will learn the key elements of design and HTML, the concepts of planning and organizing websites, and documentation and copyright issues associated with website design. Students will progress through the course, engaging in a variety of project-based assessments to evaluate their understanding.

Physical Education 7	CREDIT .5	Grade Level: 7
-----------------------------	------------------	-----------------------

Through this online Physical Education course students will be exposed to many diverse activities and will learn a wide variety of fitness concepts that they will be able to use in their everyday lives. Students will learn lifelong skills such as rock climbing, orienteering, and ping-pong along with stress management concepts through Yoga and Pilates. Students will develop a sense of self esteem and accomplishment through completion of fitness tests, attaining personal goals set, and learning to care for their body. Integrated assignments will show students that content areas of science, social studies, math, and English are littered throughout physical education and apply in our everyday activities. Quizzes, discussion boards, projects, and physical activity will be assessed weekly to gauge content understanding. After completion of this course students will have the knowledge to stay fit and stay active well beyond middle school.



ACADEMY KANSAS
Manhattan-Ogden USD 383
 a network^{k12} school

Physical Education 8	CREDIT .5	Grade Level: 8
-----------------------------	------------------	-----------------------

Scientific evidence has shown that regular physical activity is essential to our health and wellness. The American Heart Association has indicated that the primary cause for the number one killer in the United States, heart disease, can be treated with daily participation in physical activity. This course will teach students to make informed decisions that will assist them both now and in the future. Students taking Physical Education 8 will be exposed to a variety of lifetime physical activities such as canoeing, cycling, and kick-boxing. Every student is different; therefore every student will design and participate in a fitness program that meets their individual fitness needs and interests.

call: 877.345.4757
 e-mail: info@iQacademyKS.com
 visit: iQacademyKS.com