



K¹² International Academy

2015-2016

COURSE CATALOG

GRADES K-12



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Note: Course materials will be available in various formats, which may include physical and/or digital materials

ENGLISH and LANGUAGE ARTS

LANGUAGE ARTS BLUE (K)

In this course, students receive structured lessons on readiness skills through emphasis on phonics, language skills, literature, and handwriting to help develop comprehension, build vocabulary, and promote a lifelong interest in reading.

- **Phonics:** PhonicsWorks prepares students to become independent readers through systematic, multisensory instruction in phonemic awareness and decoding skills, using a kit of magnetized letter tiles and a variety of games and activities.
- **Literature and Comprehension:** Plenty of read-aloud literature kindles the imagination while building comprehension and vocabulary. The emphasis is on classic literature—fairy tales, fables, and folktales—including many works that embody exemplary virtues.
- **Language Skills:** Traditional poems, nursery rhymes, and riddles help students develop comprehension, vocabulary, and a love of language. Offline vocabulary instruction is accompanied by online review and practice. “All About Me” lays the foundations of the writing process as students brainstorm, discuss, illustrate, write, and share ideas with others.
- **Handwriting:** *Handwriting Without Tears* provides gentle instruction to help students print letters correctly.

Curriculum Items: *K¹² Language Arts Blue Lesson Guide and Activity Book*; *K¹² PhonicsWorks Basic Kit*; *K¹² PhonicsWorks Lesson Guide, Activity Book, and Assessment Book*; *K¹² Read Aloud Treasury*; *The Rooster Crows—A Book of American Rhymes and Jingles* by Maud and Miska Petersham; *Rhyme Time* by Tomie dePaola; additional works of literature; *K¹² World Magazines*; *Handwriting Without Tears: Letters and Numbers for Me Teacher’s Guide and Student Workbook*; slate chalkboard; items easily found in a typical home

LANGUAGE ARTS GREEN (1)

In this course, students receive structured lessons on readiness skills through emphasis on phonics, language skills, literature, and handwriting to help develop comprehension, build vocabulary, and promote a lifelong interest in reading.

- **Phonics:** There are 36 units in the Phonics program. Each unit contains five lessons. In the first four lessons, students learn new skills or practice what they’ve previously learned. The fifth lesson in each unit begins with online review and practice activities that reinforce skills learned in the unit, and is followed by an offline unit assessment. In some lessons, students will read an online decodable reader. These are short, interactive stories that consist entirely of words students are able to read. Students will acquire the critical skills and knowledge required for reading and literacy.
- **Literature and Comprehension:** The K¹² Language Arts Literature and Comprehension program consists of 24 units with reading selections from the Classics anthology, nonfiction magazines, trade books, and other books students choose for themselves. Students will listen to and read a variety of poetry, fiction, and nonfiction to develop their reading comprehension skills.
- **Handwriting:** Students will further develop their handwriting skills through *Handwriting Without Tears*. In Semester 1, students will work in the *My Printing Book*. In Semester 2, students will practice handwriting on their own using lined paper.
- **Spelling:** There are 18 units in K¹² Spelling, which begins in the second semester of Grade 1. Each unit contains five lessons. The first lesson of a unit introduces new Spelling words. In the second and third lessons, you and your students work together to practice the spelling words introduced in the first lesson. There is an online review in Lesson 4 and an offline assessment in Lesson 5. Students will master the spelling skills needed to read and write proficiently.
- **Vocabulary:** K¹² Vocabulary exposes students to a wide variety of words. Students will learn, review, and practice words online. There are 18 units in K¹² Vocabulary. In the first 8 lessons of each unit, students will study 3 sets of related words. Lesson 9 of each unit is a review of all the words. The 10th lesson is always a Unit Checkpoint, testing students on all the words they studied.

- **Writing Skills:** The program includes 18 alternating units of Grammar, Usage, and Mechanics lessons and Composition lessons. In odd-numbered units, students will learn grammar, usage, and mechanics skills that will help them communicate in standard English. The fourth lesson of each unit is an online review of the unit's skills, and the fifth lesson is an offline assessment. In even-numbered composition units, students will also learn techniques for planning, organizing, and creating different kinds of writing. Each unit starts with a journal assignment that will help get students writing and generating ideas to be used in their writing assignments. The program includes rubrics and sample papers to help evaluate students' work.

Curriculum Items: My Printing Book; Journal; Language Arts Green Spelling Handbook; Book Report Kit; Green Activity Books 1 and 2; Green LA Lesson Guides 1 and 2; Story Cards; Grab bag; Green Assessments Books; K¹² Language Arts Green Lesson Guides and Activity Books; K¹² PhonicsWorks Basic and Advanced Kits; K¹² PhonicsWorks Advanced Sight Word Cards; K¹² PhonicsWorks Readers Advanced; K¹² PhonicsWorks Advanced Lesson Guide Book 1 and Book 2; K¹² PhonicsWorks Advanced Activity Book; K¹² PhonicsWorks Advanced Assessment Book 1 and Book 2; accomplishments chart and stickers; dry erase board; markers and eraser; accomplishments chart and stickers

Additional Curriculum Items: Additional works of literature, including *Listen My Children: Poems for First Graders*; *Ready, Set, Read, Classics for Young Readers*; items easily found in a typical home

LANGUAGE ARTS ORANGE (2)

This course provides a comprehensive and interrelated sequence of lessons for students to continue building their proficiency in literature and comprehension, writing skills, vocabulary, spelling, and handwriting.

- **Literature and Comprehension:** A guided reading approach builds comprehension strategies and gradually transitions students to independent reading assignments. Leveled reading selections progressively expose students to new challenges including greater length, more complex content, and new vocabulary. The emphasis is on classic literature from many cultures, poetry, and nonfiction articles. Students also make their own reading choices to help foster a lifelong love of reading.
- **Writing Skills:** Students learn about parts of speech, usage, capitalization, and punctuation, then apply this knowledge as they write sentences and paragraphs. Students are introduced to the process of writing, as they pre-write, draft, revise, and proofread their work before they share it with others. Written products

include letters, poems, literature reviews, research reports, and presentations.

- **Vocabulary:** Students increase their vocabulary through word study, comprehension, and word analysis, then apply their knowledge in a variety of authentic contexts.
- **Spelling:** Students continue their exploration of spelling conventions with lessons in sound-symbol relationships and patterns.
- **Handwriting:** *Handwriting Without Tears* helps students develop printing skills and, if appropriate, begin cursive handwriting.

Curriculum Items: K¹² Language Arts Orange Lesson Guide; Activity Book; and Assessment Book; *Listen, My Children: Poems for Second Graders*, from Core Knowledge; *K¹² Classics for Young Readers*, Vol. B; *Surprises*, a book of poems selected by Lee Bennett Hopkins; additional works of literature; *K¹² World Magazines*; *Handwriting Without Tears: Printing Power Teacher's Guide and Student Workbook*; items easily found in a typical home

LANGUAGE ARTS PURPLE (3)

In this course, students receive structured lessons in the language arts, a discipline which includes literature and comprehension, writing skills, vocabulary, spelling, and handwriting. The purpose of these lessons is to increase reading comprehension, develop fundamental skills in oral and written communication, build vocabulary, and promote a lifelong interest in reading. This course addresses current thinking in assessment standards.

- **Literature and Comprehension:** Within this program, students will read a variety of poetry, fiction, and nonfiction. The reading selections in each unit share a common theme, topic, or genre. The accompanying lessons will develop students' literal and inferential comprehension skills. Students will read selections from the provided materials and then work online to analyze and examine the selections in more depth. They will work offline to further evaluate the work, make connections among works and the broader world, and apply the skills that they have learned in written assignments and creative projects. Students will also select books that they want to read from a list that is provided and analyze those works. In Critical Skills Practice units, students will practice important test-taking skills by reading passages and answering multiple-choice questions about what they have read. These questions are similar to those found on common standardized assessments and state tests.

- **Handwriting:** Students will further develop their handwriting skills through *Handwriting Without Tears*. In Semester 1, students will work in the *Cursive Handwriting* book. In Semester 2, students will practice cursive on their own as they complete assigned work in other Language Arts programs.
- **Spelling:** There are 36 units in K¹² Spelling. Each unit contains five lessons. The first lesson of a unit introduces new Spelling words. In the second and third lessons, you and your students work together to practice the spelling words introduced in the first lesson. These first three lessons are offline. The fourth lesson in each unit is an online review activity. Finally, the fifth lesson consists of an offline Unit Checkpoint that checks students' mastery of the spelling words. Each lesson is designed to take approximately 15 minutes. Students will master the spelling skills needed to read and write proficiently.
- **Vocabulary:** K¹² Vocabulary exposes students to a wide variety of words. Students will learn, review, and practice words online. K¹² Vocabulary is made up of 18 units of 10 lessons each. Lessons are entirely online. Each lesson should take about 10 minutes. In the first 8 lessons of each unit, students will study 3 sets of related words. Lesson 9 of each unit is a review of all the words. Lesson 10 is always a Unit Checkpoint, testing students on all the words they studied.
- **Writing Skills:** Writing Skills units combine online and offline activities to teach students about grammar, usage, and mechanics, as well as how to plan, write, revise, proofread, and publish various forms of writing. For example, in Unit 4, students will learn about combining sentences and strategies for writing a personal story. Most units end with an assessment on language skills, along with rubrics and sample papers to help evaluate students' writing. There are also Critical Skills Practice units that help students apply their knowledge of language, vocabulary, spelling, and writing strategies to answer questions, similar to those on standardized tests, including planning and writing a response to a prompt.
- **Curriculum Items:** Language Arts Accomplishment Stickers; 3rd Grade Cursive Teacher's Guide; *Cursive Handwriting* – 2008 ed.; *The Glory of Greece*; *George Washington: Soldier, Hero, President*; K¹² Language Arts Purple Spelling Handbook; K¹² Language Arts Purple Accomplishment Chart; K¹² Language Arts Purple Activity Books 1 and 2; K¹² Language Arts Purple Lesson Guides 1 and 2; K¹² Language Arts Purple Assessment Books 1 and 2; K¹² *Classics for Young Readers*, Vol C; K¹² Grab bag, K¹² My Journal Purple; K¹² World: Weather or Not

LANGUAGE ARTS 4

This comprehensive course covers reading comprehension; analysis; composition; vocabulary; and grammar, usage, and mechanics, including sentence analysis and diagramming. Structured lessons on spelling enable students to recognize base words and roots in related words. Lessons are designed to develop reading comprehension, build vocabulary, and help students become more independent readers. The emphasizes classic literature. Additionally, students read works of nonfiction, as well as four novels selected from a long list of classic titles. A test preparation program prepares students for standardized tests.

Curriculum Items: *Classics for Young Readers*, Vol. 4A; *Classics for Young Readers*, Vol. 4B; *Writing in Action*, Vol. C; *Writing in Action*, Vol. D; *Exercises in English*, Millennium ed. (Level D); *Robinson Crusoe* by Daniel Defoe (K¹² edition, retold for young readers); *Feathers, Flippers and Fur*; *If You Lived in the Days of the Knights* by Ann McGovern; *Nature's Way*; white dry-erase board

LANGUAGE ARTS 5

This course provides structured lessons on reading comprehension; analysis; composition; vocabulary; and grammar, usage, and mechanics. Through emphasis on spelling, students learn relationships between sounds and spellings in words and affixes. Lessons are designed to develop comprehension, build vocabulary, and help students become more independent and thoughtful readers. Students practice writing as they write a memoir, an editorial, a research paper, a business letter, and more. They learn about parts of speech, punctuation, and research skills. Students study literature in a variety of genres, including fiction, poetry, nonfiction, drama, and novels.

Curriculum Items: *American Lives and Legends*; *Exercises in English*, Millennium ed. (Level E); *American Tall Tales* by Adrien Stoutenburg; *Bard of Avon: The Story of William Shakespeare* by Diane Stanley and Peter Vennema; *Curious Creatures*; *Writing in Action*, Vol. 5E; *Writing in Action*, Vol. 5F; *I Didn't Know That!*; *Don Quixote* by Miguel de Cervantes (K¹² edition, retold for young readers); white dry-erase board

MARK¹² READING I (ADAPTIVE REMEDIATION)

Mastery. Acceleration. Remediation. K¹². MARK¹² courses are for students in the third to fifth grades who are struggling readers. MARK¹² Reading I gives students who are reading several grades below grade level the opportunity to master missed concepts in a way that accelerates them through the remediation process by incorporating adaptivity and online assessments. Students work independently and with a Learning Coach to develop oral reading, comprehension, phonics, spelling, and fluency skills. They also practice grammar, usage, mechanics, and composition. The engaging

course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success.

Curriculum Items: *MARK¹² Reading Lesson Guide*, Vol. 1; *MARK¹² Reading Activity Book*, Vol. 1; *MARK¹² Classics for Young Readers*, Vol. 1; *Just Write!* Levels 1 and 2; online tile kit; pencils; index cards; markers; a speaker and microphone are necessary; a headset combination is recommended.

MARK¹² READING II (ADAPTIVE REMEDIATION)

Mastery. Acceleration. Remediation. K¹². **MARK¹²** courses are for students in the third to fifth grades who are struggling readers. **MARK¹² Reading II** gives students who are reading two or more grades below grade level the opportunity to master missed concepts in a way that accelerates them through the remediation process by incorporating adaptivity and online assessments. Students work independently and with a Learning Coach to develop oral reading, comprehension, phonics, spelling, and fluency skills. They also practice grammar, usage, mechanics, and composition. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success.

Curriculum Items: *MARK¹² Reading Lesson Guide*, Vol. 2, *MARK¹² Reading Activity Book*, Vol. 2, *MARK¹² Classics for Young Readers*, Vol. 2, *Writing in Action*, Level A, online tile kit, pencils, index cards, markers; a speaker and microphone are necessary; a headset combination is recommended.

MARK¹² READING III (ADAPTIVE REMEDIATION)

Mastery. Acceleration. Remediation. K¹². **MARK¹²** courses are for students in the third to fifth grades who are struggling readers. **MARK¹² Reading III** gives students who are reading approximately two grades below grade level the opportunity to master missed concepts in a way that accelerates them through the remediation process by incorporating adaptivity and online assessments. Students work independently and with a Learning Coach to develop oral reading, comprehension, phonics, spelling, and fluency skills. They also practice grammar, usage, mechanics, and composition. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success.

Curriculum Items: *MARK¹² Reading Lesson Guide*, Vol. 3; *MARK¹² Reading Activity Book*, Vol. 3; *MARK¹² Classics for Young Readers*, Vol. 3; *Writing in Action*, Level B; online tile kit; pencils; index cards; markers; a speaker and microphone are necessary; a headset combination is recommended.

MATH

MATH PLUS BLUE (K)

This research-based course focuses on computational fluency, conceptual understanding, and problem solving. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success. This course introduces students to numbers through 30. Students learn through reading, writing, counting, comparing, ordering, adding, and subtracting. They experience problem solving and encounter early concepts in place value, time, length, weight, and capacity. They learn to gather and display simple data. Students also study two- and three-dimensional figures—they identify, sort, study patterns, and relate mathematical figures to objects within their environment.

Curriculum Items: Activity book; custom K¹² block set; lesson guide book; items easily found in a typical home

MATH PLUS GREEN (1)

This research-based course focuses on computational fluency, conceptual understanding, and problem solving. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success. This course extends their work with place value to numbers through 100, emphasizing fluency of addition and subtraction facts, and focusing on number sentences and problem solving with addition and subtraction. Students begin work with money; telling time; ordering events; and measuring length, weight, and capacity with non-standard units. Students identify attributes of geometric figures and also extend their work with patterns and data, including representing and comparing data.

Curriculum Items: Activity book; custom K¹² block set; lesson guide book; base 10 blocks set; place-value mat; items easily found in a typical home

MATH PLUS ORANGE (2)

This research-based course focuses on computational fluency, conceptual understanding, and problem solving. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success. This course focuses primarily on number concepts, place value, and addition and subtraction of numbers through 1,000. Special emphasis is given to problem solving,

inverse operations, properties of operations, decomposition of numbers, and mental math. Students study money, time, and measurement; geometric figures; analyzing and displaying data with new representations; and determining the range and mode of data. Early concepts about multiplication, division, and fractions are introduced.

Curriculum Items: Activity book; custom K¹² block set; lesson guide book; base 10 blocks set; place-value mat; items easily found in a typical home

MATH PLUS PURPLE (3)

This research-based course focuses on computational fluency, conceptual understanding, and problem solving. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success. This course provides a quick overview of whole number addition and subtraction, but has a greater focus on whole number multiplication and division, encompassing early algebraic thinking. Decimals are studied in relationship to place value and money, and fractions are addressed through multiple representations and probability. Students are introduced to specific methods and strategies to help them become more effective problem solvers. Geometry and measurement are addressed through the study of two- and three-dimensional shapes, early work with perimeter, area, and volume, and applying measuring techniques to time, length, capacity, and weight. This course includes standards-based tasks, digital literacy skills, and assessment questions.

Curriculum Items: Textbook; custom K¹² block set; lesson guide book; base 10 blocks set; place-value mat; items easily found in a typical home

MATH PLUS RED (4)

This research-based course focuses on computational fluency, conceptual understanding, and problem solving. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success. This course moves into applications and properties of operations. Students work with simple fraction and decimal operations, which are applied in the study of measurement, probability, and data, and mathematical reasoning techniques. Students begin the study of equivalencies between fractions and decimals on the number line and early work with integers. Algebraic thinking is developed as students work with variables, coordinate graphing, and formulas in problems involving perimeter, area, and rate. Geometry is extended into greater classification of shapes and work with lines, angles, and rotations.

Curriculum Items: Textbook; color tiles set; lesson guide book; items easily found in a typical home

MATH PLUS YELLOW (5)

This research-based course focuses on computational fluency, conceptual understanding, and problem solving. The engaging course features new graphics, learning tools, and games; adaptive activities that help struggling students master concepts and skills before moving on; and more support for Learning Coaches to guide their students to success. This course investigates whole numbers through practical situations in rounding, exponents and powers, and elementary number theory. Students begin addition and subtraction of integers and apply all of their work with rational numbers to problem solving experiences. The study of algebra includes work with variables, solving equations and inequalities, using formulas within geometry and measurement, and work within the coordinate system. The study of geometry encompasses properties of lines, angles, two- and three-dimensional figures, and formal constructions and transformations.

Curriculum Items: Textbook; lesson guide book; protractor; items easily found in a typical home

SCIENCE

SCIENCE K

Kindergarten students begin to develop observation skills as they learn about the five senses, the Earth's composition, and the basic needs of plants and animals. Students will also explore topics such as measurement (size, height, length, weight, capacity, and temperature), matter (solid, liquid, and gas), the seasonal cycle, our Earth (geography, taking care of the Earth), motion (pushes and pulls, magnets), and astronomy (the Earth, Sun, Moon, and stars; exploring space; astronauts Neil Armstrong and Sally Ride).

Curriculum Items: Safety glasses; basic thermometer; bar magnets (pair); magnifying glass; mirror; inflatable globe; *Animals in Winter* by Henrietta Bancroft and Richard G. Van Gelder; *My Five Senses* by Alike; *The Big Dipper* by Franklyn Branley; *What's Alive?* by Kathleen Weidner Zoehfeld

SCIENCE 1

Students learn to perform experiments, record observations, and understand how scientists see the natural world. They germinate seeds to observe plant growth, and make a weather vane. Students will also explore topics such as matter (states of matter, mixtures, and solutions), weather (cloud formation, the water cycle), animal classification and

adaptation (insects, amphibians, birds, and mammals), habitats (forests, deserts, rain forests), the oceans (waves and currents, coasts, coral reefs), light (how it travels, reflections, and inventor Thomas Edison), plants (germination, functions of roots, stems), and the human body.

Curriculum Items: Bean seeds; grass seeds; directional compass; graduated cylinder, 100 mL; basic thermometer; safety goggles; magnifying glass; mirror; feathers; centimeter gram cubes; primary balance; inflatable globe; *Down Comes the Rain* by Franklyn Branley; *Flash, Crash, Rumble, and Roll* by Franklyn Branley; *What Is the World Made Of?* by Kathleen Weidner Zoehfeld

SCIENCE 2

Students perform experiments to develop skills of observation and analysis and learn how scientists understand our world. They demonstrate how pulleys lift heavy objects, make a temporary magnet and test its strength, and analyze the parts of a flower. Students will explore topics such as the metric system (liters and kilograms), force (motion and simple machines, physicist Isaac Newton), magnetism (magnetic poles and fields, how a compass works), sound (how sounds are made, inventor Alexander Graham Bell), the human body (cells, the digestive system), and geology (layers of the earth, kinds of rocks, weathering).

Curriculum Items: Bean seeds; grass seeds; graduated cylinder, 100 mL; primary rock and mineral kit; thermometer; safety goggles; magnifying glass; centimeter gram cubes; primary balance; iron filings; bar magnets; latch magnet; ring magnet; horseshoe magnet; 10 Newton spring scale; pulley; unmarked thermometer; *Fossils Tell of Long Ago* by Alike; *Let's Go Rock Collecting* by Roma Gans; *What Happens to a Hamburger?* by Paul Showers; *What Makes a Magnet?* by Franklyn Branley; *Why Frogs Are Wet* by Judy Hawes

SCIENCE 3

Students learn to observe and analyze through hands-on experiments and gain further insight into how scientists understand our world. They observe and chart the phases of the moon, determine the properties of insulators and conductors, and make a three-dimensional model of a bone. Students will explore topics such as weather (air pressure, precipitation, clouds, humidity, fronts, and forecasting), vertebrates (features of fish, amphibians, reptiles, birds, and mammals), ecosystems (climate zones, tundra, forests, desert, grasslands, freshwater, and marine ecosystems), matter (phase changes, volume, mass, atoms), the human body, energy, light, and astronomy.

Curriculum Items: *A Walk in the Boreal Forest: Biomes of North America Series*; *A Walk in the Desert: Biomes of North America Series*; *A Walk in the Rainforest: Biomes of North America Series*; *A Walk in the Tundra: Biomes of North*

America Series; *A Walk in the Deciduous Forest: Biomes of North America Series*; *A Walk in the Prairie: Biomes of North America Series*; *Sunshine Makes the Seasons* by Franklyn Branley; *The Moon Seems to Change* by Franklyn Branley; graduated cylinder; directional compass; safety goggles; magnifying glass; thermometer; clay (four colors)

SCIENCE 4

Students develop scientific reasoning and perform hands-on experiments in Earth, life, and physical sciences. They construct an electromagnet, identify minerals according to their properties, use chromatography to separate liquids, and assemble food webs. Students will explore topics such as the interdependence of life; plant and animal interactions; chemistry; forces and fluids; the human body; the nervous system; invertebrates; electricity and magnetism; rocks and minerals; weathering, erosion, and deposition; the fossil record and the history of life; and the Paleozoic, Mesozoic, and Cenozoic eras.

Curriculum Items: Bar magnets (pair); safety goggles; graduated cylinder, 100 mL; lamp bulb receptacles; lamp bulbs; magnifying glass; intermediate rock and mineral kit; advanced thermometer; *Invertebrates, The History of Life Through Fossils* (Lickle Publishing); clay (four colors); bare copper wire; gravel; adding machine paper; pipe cleaners; sand; white tile

SCIENCE 5

Students perform experiments, develop scientific reasoning, and recognize science in the world around them. They build a model of a watershed, test how cell membranes function, track a hurricane, and analyze the effects of gravity. Students will explore topics such as water resources (aquifers, watersheds, and wetlands), the oceans (currents, waves, tides, the ocean floor), Earth's atmosphere (weather patterns, maps, forecasts, fronts), motion and forces (pushes or pulls, position and speed, gravity), chemistry (structure of atoms, elements and compounds), cells and cell processes, taxonomy of plants and animals, and animal physiology.

Curriculum Items: Alum; safety goggles; graduated cylinder; litmus paper; thermometer; *How Bodies Work*; *Classifying Life*; clay (four colors); potting soil; coarse gravel; pea gravel; coarse sand; fine sand

HISTORY

HISTORY K

This beginning course teaches the basics of world geography through a storybook tour of the seven continents, and provides an introduction to American history and civics through a series of biographies of famous Americans. Supplementary lessons introduce students to symbols that represent American freedom; the laws, rights, and responsibilities of citizens; the cultures and traditions of the United States; and basic economic concepts.

Curriculum Items: U.S./world map (K-2); inflatable globe (K-2); *Bringing the Rain to Kapiti Plain* by Verna Aardema; *Follow the Drinking Gourd* by Jeannette Winter; *Madeline* by Ludwig Bemelmans; *Possum Magic* by Mem Fox; *The Great Kapok Tree* by Lynne Cherry; *The Story of Ferdinand* by Munro Leaf and Robert Lawson; *The Story About Ping* by Marjorie Flack and Kurt Wiese; *When Clay Sings* by Byrd Baylor

HISTORY 1

History 1 kicks off a program that, spanning the elementary grades, provides an overview of world geography and history from the Stone Age to the Space Age. This course takes students through the age of classical civilizations. Supplementary lessons focus on concepts in economics and citizenship.

Curriculum Items: U.S./world map (K-2); inflatable globe (K-2); *Mummies* by Joyce Milton; *Tut's Mummy: Lost and Found* by Judy Donnelly; *The Trojan Horse* by Emily Little

HISTORY 2

History 2 continues a program that spans the elementary grades, exploring world geography and history from the Stone Age to the Space Age. This course focuses on the time from ancient Rome to the later Middle Ages. Supplementary lessons focus on concepts in economics and citizenship.

Curriculum Items: U.S./world map (K-2); inflatable globe (K-2); *Knights in Shining Armor* by Gail Gibbons; *Pompeii ... Buried Alive* by Edith Kunhardt; *The Hundredth Name* by Shulamith Levey Oppenheim; *Saint George and the Dragon* by Margaret Hodges; *Sundiata: Lion King of Mali* by David Wisniewski

HISTORY 3

History 3 continues a program that spans the elementary grades, exploring world geography and history from the Stone Age to the Space Age. This course focuses on the

period from the Renaissance through the American Revolution. Supplementary lessons focus on concepts in economics and citizenship.

Curriculum Items: *Michelangelo* by Mike Venezia, *America 1492* (“Kids Discover” Magazine), *The Revolutionary War* by Brendan January (Children’s Press, 2000), *Understanding Geography Level 3— Map Skills and Our World* (maps.com, 2006), inflatable globe (3-6), U.S./world map (3-5)

HISTORY 4

History 4 concludes a program that spans the elementary grades, exploring world geography and history from the Stone Age to the Space Age. This course focuses on the period from the Scientific Revolution to modern times. Supplementary lessons focus on concepts in economics and citizenship.

Curriculum Items: *Understanding Geography Level 4—Map Skills and Our World* (maps.com, 2006); inflatable globe (3-6); U.S./world map (3-5); *Inventors: A Library of Congress Book* by Martin Sandler; *The U.S. Constitution and You* by Syl Sobel

AMERICAN HISTORY A

The first half of a detailed two-year survey of the history of the United States, this course takes students from the arrival of the first people in North America through the Civil War and Reconstruction. Lessons integrate topics in geography, civics, and economics. Building on the award-winning series *A History of US*, the course guides students through critical episodes in the story of America. Students investigate Native American civilizations; follow the path of European exploration and colonization; assess the causes and consequences of the American Revolution; examine the Constitution and the growth of the new nation; and analyze what led to the Civil War and its aftermath.

Curriculum Items: U.S./world map (3-5); *Map Skills and Our World, Level 5*; *A History of US: The Concise School Edition* by Joy Hakim (Vol. A: Prehistory to 1800, and Vol. B: 1790 to 1877)

ART

ART K

Students are introduced to the elements of art—line, shape, color, and more. They learn about portraits and landscapes, and realistic and abstract art. Students will learn about important paintings, sculpture, and architecture; study the works and lives of artists such as Matisse, Miro, Rembrandt, Hiroshige, Cezanne, Picasso, and Faith Ringgold; and create artworks similar to works they learn about, using many

materials and techniques. For example, students will create brightly colored paintings inspired by Matisse and make mobiles inspired by Alexander Calder.

Curriculum Items: *Come Look with Me: Enjoying Art with Children* by Gladys S. Blizzard; *Come Look with Me: Animals in Art* by Gladys S. Blizzard; art print kit; paintbrushes; modeling clay, assorted colors; tempera paint set; oil pastels

ART 1

Following the timeline of K¹² History, Art 1 lessons include an introduction to the art and architecture of different cultures, such as Mesopotamia and ancient Egypt, Greece, and China. Students will identify landscapes, still lifes, and portraits; study elements of art, such as line, shape, and texture; and create art similar to the works they learn about, using many materials and techniques. For example, inspired by Vincent van Gogh's *The Starry Night*, students paint their own starry landscape using bold brushstrokes, and make clay sculptures inspired by a bust of Queen Nefertiti and the Great Sphinx.

Curriculum Items: *Come Look with Me: Exploring Landscape Art with Children* by Gladys S. Blizzard; *Come Look with Me: World of Play* by Gladys S. Blizzard; art print kit; paintbrushes; modeling clay, assorted colors; tempera paint set; oil pastels

ART 2

Art 2 lessons include an introduction to the art and architecture of ancient Rome, medieval Europe, Islam, Mexico, Africa, China, and Japan. Students will examine elements of art and principles of design, such as line, shape, pattern, and more; study and create self-portraits, landscapes, sculptures, and more; and create artworks similar to works they learn about, using many materials and techniques. For example, after studying Winslow Homer's *Snap the Whip*, students paint their own narrative landscape, and design stained glass windows inspired by the Notre Dame Cathedral in Paris.

Curriculum Items: *How Artists See Play* by Colleen Carroll; *How Artists See Animals* by Colleen Carroll; art print kit; paintbrushes; modeling clay, assorted colors; tempera paint set; oil pastels

ART 3

Following the timeline of K¹² History, Art 3 lessons include an introduction to the art and architecture of the Renaissance throughout Europe, including Italy, Russia, and northern Europe. Students also investigate artworks from Asia, Africa, and the Americas created during the same time period. Students will extend their knowledge of elements of art and principles of design, such as form, texture, and symmetry, and draw, paint, and sculpt a variety of works, including self-portraits, landscapes, and still life paintings. For example,

after studying da Vinci's *Mona Lisa*, students will use shading in their own drawings and make prints showing the features and symmetry of the Taj Mahal.

Curriculum Items: *How Artists See Families* by Colleen Carroll; *How Artists See Work* by Colleen Carroll; art print kit; paintbrush, tempera, flat bristle #1; paintbrushes; modeling clay, assorted colors; tempera paint set; oil pastels

ART 4

Lessons include an introduction to the artists, cultures, and great works of art and architecture from the French and American revolutions through modern times. Students will study and create artworks in various media, including portraits, quilts, sculpture, collages, and more; investigate the art of the United States, Europe, Japan, Mexico, and Africa; learn about Impressionism, Cubism, Art Nouveau, and Regionalism; and create artworks inspired by works they learn about, using many materials and techniques. For example, after studying sculptures and paintings of ballerinas by Edgar Degas, students create their own clay sculptures of a figure in motion.

Curriculum Items: *Come Look at Me: The Artist at Work* by R. Sarah Richardson; *Come Look at Me: Exploring Modern Art* by Jessica Noelani Wright; art print kit; paintbrush, tempera, flat bristle #1; paintbrush, tempera, small #1; paintbrush, tempera, medium #4; paintbrush, tempera, large #8; tempera paint set; burlap

INTERMEDIATE ART: AMERICAN A

Intermediate Art: American A includes an introduction to the artists, cultures, and great works of art and architecture of North America, from pre-Columbian times through 1877. Students will study and create various works, both realistic and abstract, including sketches, masks, architectural models, prints, and paintings; investigate the art of the American Indians, and Colonial and Federal America; and create artworks inspired by works they learn about, using many materials and techniques. For example, after studying John James Audubon's extraordinary paintings of birds, students make bird paintings with realistic color and texture.

Curriculum Items: *Come Look With Me: Art in Early America* by Randy Osofsky; *Come Look With Me: Exploring American Indian Art* by Stephanie Salomon; art print kit; paintbrushes; white self-hardening clay; tempera paint set; acrylic paint set; burlap; oil pastels

MUSIC

PREPARATORY MUSIC

Kindergarten students learn about music through lively activities, including listening, singing, and moving. Through games and folk songs from diverse cultures, students learn musical concepts such as high and low, or loud and soft. Creative movement activities help students enjoy the music of composers such as Grieg and Haydn. Students will sing along with folk songs, practice moving to music, and listen actively to different kinds of music. They will also understand concepts such as high and low, fast and slow, long and short, loud and soft, as well as identify and contrast beat and rhythm.

Curriculum Items: *Let's Sing*—Vol. K (songbook); tambourine; slide whistle

BEGINNING 1 MUSIC

This course is for students in grade 1, or students in grade 2 who are new to the K¹² Music program. In this course, traditional games and folk songs from many cultures help students begin to read and write simple melodic and rhythmic patterns. Students are introduced to the instruments of the orchestra through Prokofiev's classic *Peter and the Wolf*. They explore how music tells stories in *The Sorcerer's Apprentice* and are introduced to opera through a lively unit on Mozart's *Magic Flute*. Students sing along with folk songs, practice moving to music, and listen actively to different kinds of music.

Curriculum Items: *Let's Sing*—Vol. 1 (songbook); tambourine; slide whistle

BEGINNING 2 MUSIC

This course is for students in grade 2 or 3 who have completed Beginning 1 Music. Through traditional folk songs and games, students learn to read more complicated melodic patterns and rhythms. As students listen to works by great composers, such as Vivaldi and Saint-Saens, they learn to recognize these patterns in the music. Students will sing along with folk songs; read and write music; learn to recognize melody in three and four-note patterns; identify rhythms in music using half notes; become familiar with string and percussion instruments of the orchestra; recognize duple and triple meter; and begin to understand standard musical notation.

Curriculum Items: *Let's Sing*—Vol. 2 (songbook)

INTRODUCTION TO MUSIC

Introduction to Music is for students in grade 3 or 4 who are new to K¹² and just beginning their study of music. Students learn to recognize and write melodic and rhythmic patterns

with four elements, and they practice recognizing these patterns in the music of great composers, such as Beethoven and Brahms. Students become familiar with instruments of the orchestra as they listen to music composed by Vivaldi, Saint-Saens, Holst, and others. Students will read and write music; learn to recognize melody in two-, three-, and four-note patterns; and identify rhythms in music using eighth, quarter, half notes, and rests.

Curriculum Items: *Let's Sing*—Vol. 2 (songbook); tambourine; slide whistle

INTERMEDIATE 1 MUSIC

This course is for students in grade 3 or 4 who have completed Beginning 1 and 2 Music, or students in grade 4 or 5 who have completed Introduction to Music. Through traditional folk songs, games, and the consistent use of solfege, students learn to read and write a variety of musical patterns and recognize the pentatonic scale. They learn to play simple melodies and rhythms on the recorder, and also learn fundamental concepts in breathing and singing. They become more familiar with the orchestra, especially the woodwind and brass families, and learn about the lives and works of Bach, Handel, Haydn, Mozart, and Beethoven. Students will learn to recognize melody in four- and five-note patterns; identify rhythms in music using sixteenths, dotted half notes, and whole notes; and recognize AB and ABA form.

Curriculum Items: *Let's Sing*—Vol. 3 (songbook); recorder

INTERMEDIATE 2 MUSIC

This course is for students in grade 4 or 5 who have completed Intermediate 1 Music. The course begins by introducing notes that are lower or higher than the familiar lines and spaces of the staff. Students expand their knowledge of rhythm and learn about the Romantic period in music. Students also study harmony and practice recognizing pentatonic patterns. Finally, they take a musical trip through Europe, Africa, the Middle East, the Caribbean, Japan, and China.

Curriculum Items: *Let's Sing*—Vol. 4 (songbook)

INTERMEDIATE 3 MUSIC

This course is for students in grade 5 who have completed Intermediate 2 Music. The course introduces students to all the notes of the major scale, from low Sol all the way up to high Do. Students also learn to recognize and sing the natural minor scale. They expand their knowledge of rhythm with simple syncopated patterns. This semester introduces the Modern period in music, with listening activities to help students recognize Modern music and identify pieces by individual composers. Near the end of the year, students explore American folk music as they follow the expansion of

the country westward. Finally, they learn to recognize the major forms of classical music: three-part song form, theme and variations, rondo, sonata allegro, and fugue.

EXPLORING MUSIC

This course is for students in grade 5 who are new to the K¹² Music program. This course presents the basics of traditional music appreciation through singing and the study of music in history and culture. Students begin by studying some of the most important classical composers, and then study traditional music from around the country and around the world. Finally, they learn how to follow the form of a piece of music.

Curriculum Items: *Let's Sing for Fun* (songbook)

WORLD LANGUAGES

ELEMENTARY SPANISH 1

This course for beginners with little exposure to world languages is geared for younger minds, still especially receptive to language learning through contextual interpretation and imitation. Highly visual and amusing stories and activities are geared for these developing students, encouraging them to begin telling stories themselves. This course is not just a set of language lessons, but an appealing adventure for young minds. An integrated, game-based reward system keeps learners motivated and eager to progress.

Communication expressions include greetings, introductions, songs, por favor and gracias, and other expressions of daily courtesy, simple storytelling, and free response questions. **Vocabulary** starts with numbers 1-10, animals, and shapes, and moves into days of the week, seasons, colors, fruits and vegetables, simple directions, and useful “around town” expressions. **Grammar** moves from simple sentence construction, first- and third-person verbs, and indefinite articles to demonstrative pronouns, simple conjunctions, simple possession, and ser and estar. Students also begin to encounter the third-person past tense, imperative verbs, and second-person present-tense verbs. **Cultural topics** introduce the geography and customs of Spanish-speaking countries.

ELEMENTARY SPANISH 2

The adventure story continues to build upon the base of vocabulary and linguistic structures introduced in Elementary Spanish 1. Interactive activities and increasingly challenging games continue to drive students toward a

strong set of intermediate language skills. An integrated, game-based reward system keeps learners motivated and eager to progress.

Communication expressions include social exchanges, more complex storytelling, songs, recipes, word puzzles, and interrogative words. **Vocabulary** includes advanced family and animal-related words and a review of numbers. Poems, stories, and songs are used throughout. **Grammar** moves from negative and reflexive verbs and third-person plural present verbs to noun-adjective agreement, first-person past-tense verbs, and the plural imperative. **Cultural topics** include cuisine, climate, geography, and history.

Prerequisites: Elementary Spanish 1, or equivalent

ELEMENTARY FRENCH 1

This course for beginners with little exposure to world languages is geared for younger minds, still especially receptive to language learning through contextual interpretation and imitation. Highly visual and amusing stories and activities are geared for these developing students, encouraging them to begin telling stories themselves. This course is not just a set of language lessons but an appealing adventure for young minds. An integrated, game-based reward system keeps learners motivated and eager to progress.

Communication expressions include greetings, introductions, oui and non, s’il vous plait and merci, and other familiar phrases, songs, simple storytelling, and description activities. **Vocabulary** starts with animals, shapes, and colors and moves to fruits, farm-related words, body parts, family words, and numbers. **Grammar** topics include simple nouns, first-, second-, and third-person present-tense verbs for simple questions, basic third-person past-tense verbs, interrogative words, simple conjunctions, articles, prepositions, and introductory imperative and infinitive verb forms. **Cultural topics** introduce the geographies and customs of French-speaking countries.

ELEMENTARY FRENCH 2

The adventure story continues to build upon the base of vocabulary and linguistic structures introduced in Elementary French 1. Interactive activities and increasingly challenging games continue to drive students toward a strong set of intermediate language skills. An integrated, game-based reward system keeps learners motivated and eager to progress. **Communication expressions** include a wider array of social greetings and more complex storytelling and songs. **Vocabulary** expands with more terms related to animals, body parts, colors, familial relationships, and numbers. **Grammar** moves from second- and third person plural present-tense forms, prepositional phrases, and more first- and third person present-tense forms to additional

conjunctions, reflexive verbs, imperatives, and past tense forms. **Cultural topics** include cuisine, climate, geography, and history.

Prerequisites: Elementary French 1, or equivalent

ELEMENTARY GERMAN 1

This course for beginners with little exposure to world languages is geared for younger minds still especially receptive to language learning through contextual interpretation and imitation. Highly visual and amusing stories and activities are geared for these developing students, encouraging them to begin telling stories themselves. This course is not just a set of language lessons, but an appealing adventure for young minds, rich with graphics, games, and engaging interactive activities. An integrated, game-based reward system keeps learners motivated and eager to progress.

Communication expressions include greetings, introductions, ja and nein, danke and bitte and other familiar phrases, songs, simple storytelling, and description activities. **Vocabulary** starts with animals, body parts, numbers, shapes, small objects, and colors, before moving on to food, farm-related words, useful “around town” expressions, and household terminology. **Grammar** starts with simple nouns, first-, second-, and third-person present-tense verbs, direct and indirect articles, the conjunction und, the pluralization of nouns, third-person plural present-tense verbs, third-person past-tense verbs, simple prepositions, and expressions conveying “there is,” “there are,” “isn’t,” and “will be.” **Cultural topics** introduce the geographies and customs of German-speaking countries, with a special focus on German-speaking Switzerland.

ELEMENTARY GERMAN 2

The adventure story continues to build upon the base of vocabulary and linguistic structures introduced in Elementary German 1. Interactive activities and increasingly challenging games continue to drive students toward a strong set of intermediate language skills. An integrated, game-based reward system keeps learners motivated and eager to progress.

Communication expressions include a wider array of social greetings, introductions, simple commands, suggestions, questions, German folk songs, and enhanced storytelling. **Vocabulary** expands in the domains of animals, body parts, numbers, shapes, small objects, familial relationships, food, cooking, and new words useful for telling stories such as “The Three Little Pigs” and “Chicken Little” in German. **Grammar** adds more third-person present-tense verbs, direct and indirect articles, and the conjunction aber, and progresses toward new third-person plural present-tense forms, third-person past-tense verbs, additional prepositions, and expressions conveying understanding.

Students are also exposed to the simple future tense in the third person. **Cultural topics** include cuisine, climate, geography, and history.

Prerequisites: Elementary German 1, or equivalent

ELEMENTARY LATIN 1

Latin remains a vital tool in improving students’ fundamental understanding of English and other languages. While it’s considered, in the strictest sense, to be a “dead” language, Latin comes alive in this course through the use of gaming and multimedia techniques, creating the foundation for a deep understanding of cultural, political, and literary history. An integrated, game-based reward system keeps learners motivated and eager to progress.

Communication expressions include greetings, introductions, familiar phrases, relationships, cause and effect, likes and dislikes, and questions. **Vocabulary** progresses from animals, body parts, family relationships, colors, food, plants, and numbers to small objects, shapes, and household words. **Grammar** begins with simple sentence construction, first- and third-person verbs, demonstrative pronouns, conjunctions, and simple possession, before moving on to basic third-person past-tense and imperative forms, as well as certain second-person present-tense forms. **Cultural topics** introduce the history of the Latin language, and daily practices as well as military, political, and artistic aspects of the Roman Empire.

ORIENTATION

WELCOME TO ONLINE LEARNING

Families begin the school year with one of two Welcome to Online Learning courses targeted to grades K-2 or 3-5. The courses provide an overview of each curriculum area so students and Learning Coaches can familiarize themselves with the philosophy behind the curriculum methodology and overall course organization. The lessons are interactive and include actual animations or graphics that are used in the courses themselves. By the end of the course, students will be fully prepared to begin their K¹² lessons in the online school.



Note: Course materials will be available in various formats, which may include physical and/or digital materials

ENGLISH and LANGUAGE ARTS

INTERMEDIATE ENGLISH A

This course sharpens reading comprehension skills, engages readers in literary analysis, and offers a variety of literature to suit diverse tastes. Through a varied selection of classic stories, plays, and poems, many of which highlight exemplary virtues, students develop skills of close reading and literary analysis while considering important human issues and challenging ideas. They come to appreciate the writer's craft as they consider the feelings, thoughts, and ideas of characters, and make connections between literature and life. Students also learn to read for information in nonfiction texts.

Curriculum Items: *Myths of Ancient Greece and Rome* (an anthology from K¹²); *The Secret Garden* by Francis Hodgson Burnett; *The Adventures of Tom Sawyer* by Mark Twain; *Animal Adventures* (nonfiction collection); *Believing Our Eyes and Ears* (nonfiction collection); *Classics for Young Readers*, Vol. 6 CD; *Twelfth Night* (Shakespeare for Young Readers adaptation); *BK English Language Handbook*, Grade 6, Perfection Learning; *Vocabulary from Classical Roots*, Book A

Novels: Students read novels of their choice from a selection of award-winning works by renowned authors, from a variety of genres: fantasy, science fiction, historical fiction, realistic fiction, and mystery. (Novels are not part of the standard materials, but are readily available at the library or for purchase in bookstores or online.)

INTERMEDIATE ENGLISH B

This course sharpens reading comprehension skills, engages readers in literary analysis, and offers a variety of literature to suit diverse tastes. Through a varied selection of classic stories, plays, and poems, many of which highlight exemplary virtues, students develop skills of close reading and literary analysis while considering important human issues and challenging ideas. They come to appreciate the writer's craft as they consider the feelings, thoughts, and ideas of characters, and make connections between literature and life. Students also learn to read for information in nonfiction texts.

Curriculum Items: *BK English Language Handbook*, Grade 7, Perfection Learning; *Vocabulary from Classical Roots*, Book B, Educator's Publishing Service; *The Iliad and The Odyssey: Stories from Homer's Epics* (K¹² anthology); *The Hobbit* by J.R.R. Tolkien; *Treasure Island* by Robert Louis Stevenson; *City* by David Macaulay; *A History of Roman Planning* by David Macaulay; *Julius Caesar* (Shakespeare for Young Readers adaptation)

Novels: Students read novels of their choice from a selection of award-winning works by renowned authors, from a variety of genres: fantasy, science fiction, historical fiction, realistic fiction, and mystery. (Novels are not part of the standard materials, but are readily available at the library or for purchase in bookstores or online.)

LITERARY ANALYSIS AND COMPOSITION

Designed to encourage the appreciation of classic literature, this strand exposes students to both canonical works and less familiar texts and offers a variety of literature to suit diverse tastes. Whether they are reading poetry, drama, autobiography, short stories, or novels, students will be guided through close readings so that they can analyze the formal features of literary texts. Lessons also provide rich background and information to encourage contextual exploration. In this literature program, students read "what's between the lines" to interpret literature and they go beyond the book to discover how the culture in which a work of literature was created contributes to the themes and ideas it conveys. Students will consider how the struggles, subjects, and ideas they find within these works are relevant to everyday living.

Curriculum Items: *BK English Language Handbook*, Level 1, Perfection Learning; *Vocabulary from Classical Roots*, Book C, Educators' Publishing Service; *Narrative of the Life of Frederick Douglass* by Frederick Douglass; *Anne Frank: Diary of a Young Girl* by Anne Frank; *Romeo and Juliet* by William Shakespeare (Signet Classic)

Novels: Students choose four out of seven offered titles, including *Jane Eyre* by Charlotte Brontë, *Great Expectations* by Charles Dickens, *Animal Farm* by George Orwell, and *To Kill a Mockingbird* by Harper Lee.

Drama: *Romeo and Juliet* by William Shakespeare

Short stories by Langston Hughes, Shirley Jackson, Jack London, Guy de Maupassant, Edgar Allan Poe, James Thurber, and more

Poetry by W.H. Auden, Gwendolyn Brooks, E.E. Cummings, Emily Dickinson, Robert Frost, Gerard Manley Hopkins, James Weldon Johnson, John Keats, Henry Wadsworth Longfellow, Pablo Neruda, Octavio Paz, William Shakespeare, Dylan Thomas, William Butler Yeats, and more

Autobiography: Selections by Mark Twain, Ernesto Galarza, and Maya Angelou; *Narrative of the Life of Frederick Douglass* or *Anne Frank: Diary of a Young Girl*

MATH

MATH 6 - FUNDAMENTALS OF GEOMETRY AND ALGEBRA

Students enhance computational and problem-solving skills while learning topics in algebra, geometry, probability, and statistics. They solve expressions and equations in the context of perimeter, area, and volume problems while further developing computational skills with fractions and decimals. The study of plane and solid figures includes construction and transformations of figures. Also in the context of problem solving, students add, subtract, multiply, and divide positive and negative integers and solve problems involving ratios, proportions, and percents, including simple and compound interest, rates, discount, tax, and tip problems. They learn multiple representations for communicating information, such as graphs on the coordinate plane, statistical data and displays, as well as the results of probability and sampling experiments. They investigate patterns involving addition, multiplication, and exponents, and apply number theory and computation to mathematical puzzles.

Curriculum Items: *Fundamentals of Geometry and Algebra*

MATH 7 - PRE-ALGEBRA

Students take a broader look at computational and problem-solving skills while learning the language of algebra. Students translate word phrases and sentences into mathematical expressions; analyze geometric figures; solve problems involving percentages, ratios, and proportions; graph different kinds of equations and inequalities; calculate statistical measures and probabilities; apply the Pythagorean theorem; and explain strategies for solving real-world problems. Online lessons provide demonstrations of key concepts, as well as interactive problems with contextual feedback. A reference guide supplements the online material. Students who take Pre-Algebra are expected to have mastered the skills and concepts presented in K¹² Fundamentals of Geometry and Algebra (or equivalent). This rigorous course is designed for students who want or need to take Algebra I in middle school.

Curriculum Items: *Pre-Algebra: A Reference Guide and Problem Sets*

ALGEBRA I

Students develop algebraic fluency by learning the skills needed to solve equations and perform manipulations with numbers, variables, equations, and inequalities. They also learn concepts central to the abstraction and generalization that algebra makes possible. Topics include: simplifying expressions involving variables, fractions, exponents, and radicals; working with integers, rational numbers, and irrational numbers; graphing and solving equations and inequalities; using factoring, formulas, and other techniques to solve quadratic and other polynomial equations; formulating valid mathematical arguments using various types of reasoning; and translating word problems into mathematical equations and then using the equations to solve the original problems. Topics such as translating functions, higher degree roots, and more complex factoring techniques are also covered. Students who take Algebra are expected to have mastered the skills and concepts presented in the K¹² Pre-Algebra course (or equivalent).

Curriculum Items: *Algebra I: Reference Guide and Problem Sets*

Prerequisites: Success in Math 7 – Pre-Algebra (or equivalent)

Note: This is a two semester course, offered on the HS learning platform. Students who take this course will be eligible to earn HS credit upon successful completion of the course.

Curriculum Items: *Intermediate Mathematics C: Reference Guide and Problem Sets*

Prerequisites: Success in K¹² Intermediate Mathematics B (or equivalent)

SCIENCE

EARTH SCIENCE

The Earth Science curriculum builds on the natural curiosity of students. By connecting them to the beauty of geological history, the amazing landforms around the globe, the nature of the sea and air, and the newest discoveries about our universe, the curriculum gives students an opportunity to relate to their everyday world. Students will explore topics such as the fundamentals of geology, oceanography, meteorology, and astronomy; Earth's minerals and rocks; Earth's interior; plate tectonics, earthquakes, volcanoes, and the movements of continents; geology and the fossil record; the oceans and the atmosphere; and the solar system and the universe.

Curriculum Items: Wall map set (science/history); graduated cylinder; pipe cleaners; advanced rock and mineral kit; diffraction grating film; latch magnet; safety glasses; magnifying glass; centimeter gram cubes; clay (four colors); fine sand; white tile; thermometer

ADVANCED EARTH SCIENCE

Advanced Earth Science is a rigorous middle school course. It was conceived for the student who loves geology or meteorology and is ready for an extra challenge. Students tackle such topics as rocks and minerals, plate tectonics and the drifting of continents, volcanoes, earthquakes, oceanography, weather, and astronomy. Practical, hands-on lesson activities help students discover how scientists investigate the living world. Students perform laboratory activities and a full unit investigation to learn about the application of scientific methods.

Curriculum Items: Wall map set (science/history); graduated cylinder, 250 mL; pipe cleaners; advanced rock and mineral kit; diffraction grating film; latch magnet; safety glasses; magnifying glass; clay (four colors); fine sand; white tile; thermometer

LIFE SCIENCE

The K¹² Life Science program invites students to investigate the world of living things— at levels both large and small—by reading, observing, and experimenting with aspects of life on Earth. Students explore an amazing variety of organisms, the complex workings of the cell, the relationship between living things and their environments, and discoveries in the world of modern genetics. Practical, hands-on lesson activities help students discover how scientists investigate the living world. Students perform laboratory activities and a full unit investigation to learn about the application of scientific methods

Curriculum Items: Graduated cylinder; compound microscope; radish seeds; microscope slides (set of 12); slide cover slips (set of 12); transparencies (set of 12); petri dishes; agar vials; rhizobium bacteria; green bean bush seeds; safety glasses; magnifying glass; thermometer

ADVANCED LIFE SCIENCE

Advanced Life Science is a rigorous middle school course, conceived for the student who loves biology and is ready for an extra challenge. Students tackle such topics as ecology, microorganisms, animals, plants, cells, and genetics. They are also introduced to gene expression and other aspects of cell biology. Practical, hands-on lesson activities help students discover how scientists investigate the living world. Students perform laboratory activities and a full unit investigation to learn about the application of scientific methods.

Curriculum Items: Graduated cylinder; compound microscope; radish seeds; microscope slides (set of 12); slide cover slips (set of 12); transparencies (set of 12); petri dishes; agar vials; rhizobium bacteria; green bean bush seeds; safety glasses; magnifying glass; thermometer

PHYSICAL SCIENCE

The K¹² Physical Science program introduces students to many aspects of the physical world, focusing first on chemistry and then on physics. The course provides an overview of the physical world and gives students tools and concepts to think clearly about atoms, molecules, chemical reactions, motion, electricity, light, and other aspects of chemistry and physics. Among other subjects, students study the structure of atoms; the elements and the Periodic Table; chemical reactions; forces, including gravitational, motion, acceleration, and mass; and energy, including light, thermal, electricity, and magnetism.

Curriculum Items: Graduated cylinder, 250 mL; stopwatch; 10 Newton spring scale; digital scale; double pulley; metallic rod; metallic spring; muriatic acid; phenolphthalein; protective gloves (two pairs); D-cell battery holder; cork stoppers; enamel-coated, heavy-gauge copper wire; non-insulated copper wire; insulated copper wire strips (set of five)

ADVANCED PHYSICAL SCIENCE

Advanced Physical Science is a rigorous middle school course conceived for the enthusiastic science student who is ready for an extra challenge. Students learn about the physical world and tackle topics such as matter, energy, atoms, motion, thermodynamics, and other aspects of chemistry and physics. Practical, hands-on lesson activities help students discover how scientists investigate the living world. Students perform laboratory activities and a full unit investigation to learn about the application of scientific methods.

Curriculum Items: Graduated cylinder, 250 mL; stopwatch; 10 Newton spring scale; digital scale; double pulley; metallic rod; metallic spring; muriatic acid; phenolphthalein; protective gloves (two pair); D-cell battery holder; cork stoppers; enamel-coated, heavy gauge copper wire; non-insulated copper wire; insulated copper wire strips (set of five); directional compass; bar magnet (set of two); safety glasses; lamp bulbs (set of four); lamp bulb receptacle (set of two); thermometer

HISTORY and SOCIAL STUDIES

AMERICAN HISTORY B

The second half of a detailed two-year survey of the history of the United States, this course takes students from the westward movement of the late 1800s to the present. Lessons integrate topics in geography, civics, and economics. Building on the award-winning series A History of US, the course guides students through critical episodes in the story of America. Students examine the impact of the settlement of the American West; investigate the social, political, and economic changes that resulted from industrialization; explore the changing role of the U.S. in international affairs from the late 19th century through the end of the Cold War; and trace major events and trends in the United States from the Cold War through the first decade of the twenty-first century.

Curriculum Items: Wall map set (science/history); *A History of US: The Concise School Edition* by Joy Hakim Vol. C: 1865 to 1932, Vol. D: 1929 to Present

INTERMEDIATE WORLD HISTORY A: FROM PREHISTORY THROUGH THE MIDDLE AGES

In this first part of a survey of world history from prehistoric to modern times, K¹² online lessons and assessments complement *The Human Odyssey*, a textbook series developed and published by K¹². This course focuses on the development of civilization across a 12,000-year span: from the Ice Age to the Middle Ages, from cave paintings to stained glass windows, from crude huts to Gothic cathedrals. The course introduces geography concepts and skills as they appear in the context of the historical narrative.

Curriculum Item: *The Human Odyssey, Volume 1: Prehistory Through the Middle Ages*

INTERMEDIATE WORLD HISTORY B: OUR MODERN WORLD, 1400 TO 1914

Continuing a survey of world history from prehistoric to modern times, K¹² online lessons and assessments complement the second volume of *The Human Odyssey*, a textbook series developed and published by K¹². This course focuses on the story of the past, from the 15th century to 1914 and the beginning of World War I. The course is organized chronologically and, within broad eras, regionally. Lessons explore developments in religion, philosophy, the arts, and

science and technology. The course introduces geography concepts and skills as they appear in the context of the historical narrative.

Curriculum Item: *The Human Odyssey, Volume 2: Our Modern World, 1400 to 1914*

ART

INTERMEDIATE ART: AMERICAN B

Intermediate Art: American B is designed to complement K¹² American History B. Following the same historical timeline, lessons include an introduction to the artists, cultures, and great works of American art and architecture from the end of the Civil War through modern times. Students will investigate paintings done in various styles, from Impressionist to Pop; learn about modern sculpture and folk art; discover how photographers and painters have inspired one another; examine examples of modern architecture, from skyscrapers to art museums; and create artworks inspired by works they learn about.

Curriculum Items: Art print kit; paintbrushes; plastalina clay (10 colors); acrylic paint set; oil pastels

INTERMEDIATE ART: WORLD A

Intermediate Art: World A is designed to complement Intermediate World History A: From Prehistory Through the Middle Ages. Following the same historical timeline, lessons include an introduction to the artists, cultures, and great works of world art and architecture from ancient through medieval times. Students will investigate how artists from different civilizations used various techniques, from painting to mosaic; examine elements of design and styles of decoration, from the spiral to the solar disk; and explore some of the best-preserved works from ancient tombs, including the treasures of Egypt's King Tut.

Curriculum Items: Art print kit; paintbrushes; white self-hardening clay; acrylic paint set

INTERMEDIATE ART: WORLD B

K¹² Intermediate Art: World B is designed to complement World History: Our Modern World, 1400 to 1917. Following the same historical timeline, lessons include an introduction to the artists, cultures, and great works of world art and architecture from the Renaissance through modern times. Students will study various works of art from the Renaissance and beyond; discover great works of art and see how they influenced later artists; compare and contrast

works from many civilizations, from paintings to sculpture, architecture, book covers, prints, and more; and create artworks inspired by works they learn about.

Curriculum Item: Art print kit

MUSIC

MUSIC CONCEPTS A

This course is for students in grade 6, or students in grade 7 who are new to the K¹² Music program. Students learn the fundamentals of music, as they relate to the piano key, and study a select group of composers and their music. The course covers the staff and the keyboard; extending the staff; and flats, sharps, and scales.

Note: The student guides are not available in a pre-printed format and will need to be printed from the K¹² Online School (OLS). Teacher guides are not available in any format. Parents may use the student guide to view student lesson information.

MUSIC CONCEPTS B

This course is for students in grade 7 who have already completed Music Concepts A. Students learn the fundamentals of music, as they relate to the piano key, and study a select group of composers and their music. The course covers the elements of rhythm and melody; rhythms, rests, and keys; and minor scales, syncopation, and harmony.

Note: The student guides are not available in a pre-printed format and will need to be printed from the K¹² Online School (OLS). Teacher guides are not available in any format. Parents may use the student guide to view student lesson information.

MUSIC APPRECIATION

This course is for students in grade 8. Music Appreciation covers the fundamentals of music (such as rhythm, beat, melody, harmony, form, and expression), and a survey of music history beginning with the early music of the Greeks and the Middle Ages. The course concludes with Modern music by composers such as Copland and Prokofiev. Topics include the elements of music; music and emotion; musical style; musical instruments of the world; and music through history.

Note: The teacher and student guides are not available in a pre-printed format and will need to be printed from the K¹² Online School (OLS).

WORLD LANGUAGES

MIDDLE SCHOOL SPANISH 1

This fun, interactive course for middle school students is filled with diverse, multimedia language activities. Students begin their introduction to Spanish by focusing on the four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various Spanish-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages). *Also suitable for students of other ages, depending upon background and experience.

MIDDLE SCHOOL SPANISH 2

Students continue their language-learning adventure by progressing to this next level of middle school Spanish. Students expand their introduction to Spanish through focus on four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various Spanish-speaking countries, and take frequent

assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Prerequisites: K¹² Middle School Spanish 1 (or equivalent)

MIDDLE SCHOOL FRENCH 1

This fun, interactive course for middle school students is filled with diverse, multimedia language activities. Students begin their introduction to French by focusing on the four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various French-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages). *Also suitable for students of other ages, depending upon background and experience.

MIDDLE SCHOOL FRENCH 2

Students continue their language-learning adventure by progressing to this next level of middle school French. Students expand their introduction to French through focus on four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond

appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various French-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Prerequisites: K¹² Middle School French 1 (or equivalent)

MIDDLE SCHOOL GERMAN 1

This fun, interactive course for middle school students is filled with diverse, multimedia language activities. Students begin their introduction to German by focusing on the four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various German-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages). *Also suitable for students of other ages, depending upon background and experience.

MIDDLE SCHOOL GERMAN 2

Students continue their language-learning adventure by progressing to this next level of middle school German. Students expand their introduction to German through focus on four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms

and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various German-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Prerequisites: K¹² Middle School German 1, or equivalent

MIDDLE SCHOOL LATIN 1

This fun, interactive course for middle school students is filled with diverse, multimedia language activities. Since mastering a classical language presents different challenges from learning a spoken world language, students learn Latin through ancient, time honored, classical language approaches which include repetition, parsing, written composition, and listening exercises. These techniques, combined with a modern multimedia approach to learning grammar, syntax, and vocabulary, provide students with a strong foundation for learning Latin. Each unit consists of a new vocabulary theme and grammar concept, reading comprehension activities, writing activities, multimedia culture, history, and mythology presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on engaging with authentic classical Latin through weekly encounters with ancient passages from such prestigious authors as Virgil, Ovid, and Lucretius. The curriculum concurs with the Cambridge school of Latin; therefore, students will learn ancient high classical styles of pronunciation and grammar in lieu of generally less sophisticated medieval styles, making it possible for students to comprehend the most Latin from the widest range of time periods. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, understand and analyze the cultural and historical contexts of the ancient sources they study, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages). *Also suitable for students of other ages, depending upon background and experience.

MIDDLE SCHOOL LATIN 2

Students continue their language-learning adventure by progressing to this next level of middle school Latin. Since mastering a classical language presents different challenges from learning a spoken world language, students learn Latin

through ancient, time-honored, classical language approaches which include repetition, parsing, written composition, and listening exercises. These techniques, combined with a modern multimedia approach to learning grammar, syntax, and vocabulary, provide students with a strong foundation for learning Latin. Each unit consists of a new vocabulary theme and grammar concept, reading comprehension activities, writing activities, multimedia culture, history, and mythology presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on engaging with authentic classical Latin through weekly encounters with ancient passages from such prestigious authors as Virgil, Ovid, and Lucretius. The curriculum concurs with the Cambridge school of Latin; therefore, students will learn ancient high classical styles of pronunciation and grammar in lieu of generally less sophisticated medieval styles, making it possible for students to comprehend the most Latin from the widest range of time periods. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, understand and analyze the cultural and historical contexts of the ancient sources they study, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages). *Also suitable for students of other ages, depending upon background and experience.

Prerequisites: K¹² Middle School Latin 1 (or equivalent)

MIDDLE SCHOOL CHINESE 1

This fun, interactive course for middle school students is filled with diverse, multimedia language activities. Students begin their introduction to Chinese by focusing on the four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Both Chinese characters and pinyin are presented together throughout the course and specific character practices are introduced after the first quarter. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various Chinese-

speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages). *Also suitable for children of other ages, depending upon background and experience.

MIDDLE SCHOOL CHINESE 2

Students begin their introduction to Chinese by focusing on the four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Both Chinese characters and pinyin are presented together throughout the course and specific character practices are introduced after the first quarter. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various Chinese-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Prerequisites: K¹² Middle School Chinese 1, or equivalent

ORIENTATION

WELCOME TO ONLINE LEARNING

Families begin the school year with an Welcome to Online Learning course targeted to grades 6–8. The courses provide an overview of each curriculum area so students and Learning Coaches can familiarize themselves with the philosophy behind the curriculum methodology and overall course organization. The lessons are interactive and include actual animations or graphics that are used in the courses themselves. By the end of the course, students will be fully prepared to begin their K¹² lessons in the online school.



ENGLISH/LANGUAGE ARTS
Language Arts Blue (K)
Language Arts Green (1)
Language Arts Orange (2)
Language Arts Purple (3)
Language Arts 4
Language Arts 5
Intermediate English A
Intermediate English B
Literary Analysis and Composition
MARK ¹² Reading I (Remediation)
MARK ¹² Reading II (Remediation)
MARK ¹² Reading III (Remediation)
MATH
Math Plus Blue (K)
Math Plus Green (1)
Math Plus Orange (2)
Math Plus Purple (3)
Math Plus Red (4)
Math Plus Yellow (5)
Math 6: Fundamentals of Geometry and Algebra
Math 7: Pre-Algebra
Algebra I ^{HS}
SCIENCE
Science K
Science 1
Science 2
Science 3
Science 4
Science 5
Earth Science
Life Science
Physical Science
Advanced Earth Science
Advanced Life Science
Advanced Physical Science
HISTORY/SOCIAL SCIENCES
History K
History 1
History 2
History 3
History 4
American History A
American History B
Intermediate World History A
Intermediate World History B

WORLD LANGUAGES
Elementary Spanish 1
Elementary Spanish 2
Elementary French 1
Elementary French 2
Elementary German 1
Elementary German 2
Elementary Latin 1
Middle School Spanish 1
Middle School Spanish 2
Middle School French 1
Middle School French 2
Middle School German 1
Middle School German 2
Middle School Latin 1
Middle School Latin 2
Middle School Chinese 1
Middle School Chinese 2
ART
Art K
Art 1
Art 2
Art 3
Art 4
Intermediate Art/American A
Intermediate Art/American B
Intermediate Art/World A
Intermediate Art/World B
MUSIC
Preparatory Music
Beginning 1 Music
Beginning 2 Music
Introduction to Music
Intermediate 1 Music
Intermediate 2 Music
Intermediate 3 Music
Exploring Music
Music Concepts A
Music Concepts B
Music Appreciation
ORIENTATION
Welcome to Online Learning Grades K-2
Welcome to Online Learning Grades 3-5
Welcome to Online Learning Grades 6-8

^{HS} = This is a two semester course, offered on the HS learning platform. Students who take this course will be eligible to earn HS credit upon successful completion of the course.

Course materials will be available in various formats, which may include physical and/or digital materials.



To graduate and receive an Upper School diploma, students must earn 24 credits in the following subject areas and be enrolled as a full-time student for at least two consecutive semesters.

English	4 credits
Math	4 credits (Algebra 1 and higher)
Science	4 credits (must include 2 lab science credits)
History and Social Sciences	4 credits
World Language	2 credits (must be 2 credits of the same language; must be a non-English language course)
Physical Education	0.5 credit
Health	0.5 credit
Electives	5 credits
Total	24 Credits

Students must complete a minimum of six (6) credits and must spend one academic year enrolled as a full-time student with K¹² International Academy to be eligible for a K¹² International Academy diploma. Individual exceptions will be considered for students with credits from a public school or accredited private institution with a grade of C or above in all courses, provided that the student completes one academic year as a full-time student with K¹² International Academy.

A student must be FULL-TIME for their senior year (the two last semesters of a student's senior year must be consecutive) to be eligible for a diploma.

High School Course Levels

- In K¹² Core courses, topics are broken into discrete modules that are taught in tandem with the framework students need to develop strong study skills. Rich, engaging content with interactive demonstrations and activities help students absorb and retain information.
- In K¹² Comprehensive courses, students do more extensive writing and research projects, and tackle problems that require more analytical thinking. Course projects and activities also demand more independent thinking and self-discipline than projects in Core courses.
- K¹² Honors courses hold students to a greater degree of accountability, and demand even greater independence and self-discipline. Students synthesize

and evaluate information and concepts from multiple sources and read texts typically assigned in college-level courses. Students also demonstrate college-level writing in essays that require analysis of primary and secondary sources, responsible use of evidence, and comprehensive citation of sources.

- K¹² AP[®] courses are college-level courses that follow curriculum specified by the College Board. These courses are designed to prepare students for success on AP exams, providing students the opportunity to earn credit at most of the nation's colleges and universities. Our AP courses include a companion AP Exam Review course, that provides practice for multiple choice exams and essay writing, as well as provides students an individualized study plan based on their results.

Note: Course materials will be available in various formats, which may include physical and/or digital materials

ENGLISH

(these courses fulfill the English Credit Requirement)

ENG102: LITERARY ANALYSIS AND COMPOSITION I (CORE)

In this course, students work on their written and oral communication skills while strengthening their ability to understand and analyze works of literature, both classic and modern.

Literature: Students read short stories, poetry, drama, novels, essays, and informative articles. The course sharpens reading comprehension skills and engages readers in literary analysis as they consider important human issues and challenging ideas. Students also learn to read for information in nonfiction texts.

Language Skills: Students learn to express their ideas effectively. They sharpen their composition skills through focus on writing good paragraphs and essays in a variety of genres, such as persuasive and research essays. Students plan, organize, and revise written works in response to feedback on drafts. In grammar, usage, and mechanics lessons, students expand their understanding of parts of speech, phrases and clauses, sentence analysis and structure, agreement, punctuation, and other conventions. Vocabulary lessons build knowledge of Greek and Latin words that form the roots of many English words. Students

use word origins and derivations to determine the meaning of new words as they increase their vocabularies.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in semester A is required to enroll in the B semester.

Materials: *Explorations: An Anthology of Literature, Volume A; English Language Handbook; Vocabulary from Classical Roots, Book B; Julius Caesar for Young People*

Prerequisites: Middle school English/language arts

Note: This course is only for students who are new to the K¹² curriculum. Students who have taken K¹² Intermediate English A or B, or K¹² Middle School Literary Analysis and Composition courses, should not enroll in this course.

ENG103: COMPREHENSIVE LITERARY ANALYSIS AND COMPOSITION I (COMPREHENSIVE)

This course challenges students to improve their written and oral communication skills, while strengthening their ability to understand and analyze literature in a variety of genres.

Literature: Students read a broad array of short stories, poetry, drama, novels, autobiographies, essays, and famous speeches. The course guides students in the close reading and critical analysis of classic works of literature, and helps them appreciate the texts and the contexts in which the works were written. Literary selections range from classic works such as Shakespeare's *Romeo and Juliet* to contemporary pieces by authors such as Maya Angelou.

Language Skills: Students broaden their composition skills by examining model essays in various genres by student and published writers. Through in-depth planning, organizing, drafting, revising, proofreading, and feedback, they hone their writing skills. Students build on their grammar, usage, and mechanics skills with in-depth study of sentence analysis and structure, agreement, and punctuation, reinforced by online activities (Skills Updates). Student vocabularies are enhanced through the study of Greek and Latin root words, improving students' ability to decipher the meanings of new words.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in semester A is required to enroll in the B semester.

Materials: *Classics for Young Readers, Volume 8; BK English Language Handbook, Level 1; Vocabulary from Classical Roots, Book C; The Narrative of the Life of Frederick Douglass, An American Slave* by Frederick Douglass; *Anne Frank: Diary of a Young Girl* by Anne Frank; *Romeo and Juliet* by William Shakespeare

Prerequisites: K¹² Intermediate English A and B (or equivalent)

Note: Students who have already succeeded in K¹² Middle School Literary Analysis and Composition should not enroll in this course.

ENG104: HONORS LITERARY ANALYSIS AND COMPOSITION I

This course challenges students to improve their written and oral communication skills, while strengthening their ability to understand and analyze literature in a variety of genres. Students enrolled in this course work on independent projects that enhance their skills and challenge them to consider complex ideas and apply the knowledge they have learned.

Literature: Students read a broad array of short stories, poetry, drama, novels, autobiographies, essays, and famous speeches. The course guides students in the close reading and critical analysis of classic works of literature, and helps them appreciate the texts and the contexts in which the works were written. Literary selections range from the Greek tragedy *Antigone* to Shakespeare's *Romeo and Juliet* to contemporary pieces by authors such as Annie Dillard and Maya Angelou.

Language Skills: Students broaden their composition skills by examining model essays in various genres by student and published writers. Through in-depth planning, organizing, drafting, revising, proofreading, and feedback, they hone their writing skills. Students build on their grammar, usage, and mechanics skills with in-depth study of sentence analysis and structure, agreement, and punctuation, reinforced by online activities. Student vocabularies are enhanced through the study of Greek and Latin root words, improving students' ability to decipher the meanings of new words.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Classics for Young Readers; BK English Language Handbook, Level 1; Vocabulary from Classical Roots, Book C; The Narrative of the Life of Frederick Douglass, An American Slave* by Frederick Douglass; *Anne Frank: Diary of a Young Girl* by Anne Frank; *Romeo and Juliet* by William Shakespeare

Prerequisites: Success in K¹² Intermediate English A and B (or equivalent) and teacher/school counselor recommendation

Note: Students who have already succeeded in K¹² Middle School Literary Analysis and Composition should not enroll in this course.

ENG106: LITERARY ANALYSIS AND COMPOSITION I (CREDIT RECOVERY)

In the course, students read a variety of literary works to sharpen reading comprehension and literary analysis skills. They review composition skills and expand their understanding of parts of speech, phrases and clauses, sentence analysis and structure, agreement, punctuation, and other conventions. Vocabulary lessons build knowledge of Greek and Latin words that form the roots of many English words. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: *Explorations: An Anthology of Literature, Volume A; English Language Handbook; Vocabulary from Classical Roots, Book B; Julius Caesar for Young People*

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

ENG202: LITERARY ANALYSIS AND COMPOSITION II (CORE)

In this course, students build on their language skills while reading classic and modern works of literature and improving their writing skills.

Literature: Students read short stories, poetry, drama, and novels, sharpening their reading comprehension skills and analyzing important human issues.

Language Skills: Students continue to work on their oral and written expression skills, writing a variety of essays, including persuasive and research essays. Students plan, organize, and revise their essays in response to feedback. They build on their skills in grammar, usage, and mechanics by studying parts of speech, phrases and clauses, sentence analysis and structure, agreement, punctuation, and other conventions. Thematic units focus on word roots, suffixes and prefixes, context clues, and other strategies to help students strengthen their vocabularies.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Explorations: An Anthology of Literature, Volume B; The Miracle Worker* by William Gibson

Prerequisites: ENG102: Literary Analysis and Composition I (or equivalent)

Note: Students who have taken K¹² Intermediate English A or B or K¹² Middle School Literary Analysis and Composition courses should not enroll in this course.

ENG203: LITERARY ANALYSIS AND COMPOSITION II (COMPREHENSIVE)

In this course, students build on existing literature and composition skills and move to higher levels of sophistication.

Literature: Students hone their skills of literary analysis by reading short stories, poetry, drama, novels, and works of nonfiction, both classic and modern. Authors include W. B. Yeats, Sara Teasdale, Langston Hughes, Robert Frost, Edgar Allan Poe, Nathaniel Hawthorne, Kate Chopin, Amy Tan, and Richard Rodriguez. Students read Shakespeare's *Macbeth*. They are offered a choice of novels and longer works to study, including works by Jane Austen, Charles Dickens, Elie Wiesel, and many others.

Language Skills: In this course, students become more proficient writers and readers. In composition lessons, students analyze model essays from readers' and writers' perspectives, focusing on ideas and content, structure and organization, style, word choice, and tone. Students receive feedback during the writing process to help them work toward a polished final draft. In addition to writing formal essays, resumes, and business letters, students write and deliver a persuasive speech. Students expand their knowledge of grammar, usage, and mechanics through sentence analysis and structure, syntax, agreement, and conventions. Unit pretests identify skills to address more fully. Students strengthen their vocabularies through thematic units focused on word roots, suffixes and prefixes, context clues, and other important vocabulary-building strategies.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Journeys in Literature: Classic and Modern, Volume B; Vocabulary for Achievement, Fourth Course; Macbeth* by William Shakespeare

Prerequisites: ENG103: Literary Analysis and Composition I (or equivalent)

ENG204: HONORS LITERARY ANALYSIS AND COMPOSITION II

In this course, students build on existing literature and composition skills and move on to higher levels of sophistication. Students work on independent projects that enhance their skills and challenge them to consider complex ideas and apply the knowledge they have learned.

Literature: Students hone their skills of literary analysis by reading short stories, poetry, drama, novels, and works of nonfiction, both classic and modern. Authors include W. B. Yeats, Sara Teasdale, Langston Hughes, Robert Frost, Edgar Allan Poe, Nathaniel Hawthorne, Kate Chopin, Amy Tan, Richard Rodriguez, and William Shakespeare. Students have a choice of novels and longer works to study, including works by Jane Austen, Charles Dickens, and Elie Wiesel.

Language Skills: In this course, students become more proficient writers and readers. In composition lessons, students analyze model essays from readers' and writers' perspectives, focusing on ideas and content, structure and organization, style, word choice, and tone. Students receive feedback during the writing process to help them work toward a polished final draft. In addition to writing formal essays, resumes, and business letters, students write and deliver a persuasive speech. Students expand their knowledge of grammar, usage, and mechanics through sentence analysis and structure, syntax, agreement, and conventions. Unit pretests identify skills to address more fully. Students strengthen their vocabularies through thematic units focused on word roots, suffixes and prefixes, context clues, and other important vocabulary-building strategies.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Journeys in Literature: Classic and Modern, Volume B; Vocabulary for Achievement, Fourth Course; Macbeth* by William Shakespeare

Prerequisites: Success in ENG104: Honors Literary Analysis and Composition I (or equivalent) and teacher/school counselor recommendation

ENG206: LITERARY ANALYSIS AND COMPOSITION II (CREDIT RECOVERY)

In this course, students read classic and modern works of literature, sharpening their reading comprehension skills and analyzing important human issues. They review effective strategies for oral and written expression, grammar, usage, and mechanics. Thematic units focus on word roots, suffixes and prefixes, context clues, and other strategies that help students strengthen their vocabularies. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: *Explorations: An Anthology of Literature, Volume B; The Miracle Worker* by William Gibson

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

ENG302: AMERICAN LITERATURE (CORE)

In this genre-based course, students sharpen their reading comprehension skills and analyze important themes in classic and modern works of American literature, including short stories, poetry, drama, and novels. Students refine their skills of written expression by writing memoirs, persuasive essays, research essays, workplace documentation, and more. They develop vocabulary skills and refresh their knowledge of grammar, usage, and mechanics in preparation for standardized tests.

Literature: Students read short stories, poetry, drama, and novels, sharpening their reading comprehension skills and analyzing important themes in American literature.

Language Skills: Students continue to work on their oral and written expression skills, writing a variety of essays including memoirs, persuasive and research essays, and workplace documentation. Students plan, organize, and revise their essays in response to feedback.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Explorations: An Anthology of American Literature, Volume C; Our Town* by Thornton Wilder; *To Kill a Mockingbird* by Harper Lee

Prerequisites: ENG202: Literary Analysis and Composition II (or equivalent)

ENG303: AMERICAN LITERATURE (COMPREHENSIVE)

In this course, students read and analyze works of American literature from colonial to contemporary times, including poetry, short stories, novels, drama, and nonfiction. The literary works provide opportunities for critical writing, creative projects, and online discussions. Students develop vocabulary skills and refresh their knowledge of grammar, usage, and mechanics in preparation for standardized tests.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Journeys in Literature: American Traditions, Volume C; The Great Gatsby* by F. Scott Fitzgerald; *The Glass Menagerie* by Tennessee Williams. Students will also read one selection of their choice from the following: *The Old Man and the Sea* by Ernest Hemingway; *The House on Mango Street* by Sandra Cisneros; *The Red Badge of Courage* by Stephen Crane.

Prerequisites: ENG203: Literary Analysis and Composition II (or equivalent)

ENG304: HONORS AMERICAN LITERATURE

In this course, students read and analyze works of American literature from colonial to contemporary times, including poetry, short stories, novels, drama, and nonfiction. The literary works provide opportunities for critical writing, creative projects, and online discussions. Students develop vocabulary skills and refresh their knowledge of grammar, usage, and mechanics in preparation for standardized tests. Students enrolled in this challenging course will also complete independent projects that deepen their understanding of the themes and ideas presented in the curriculum.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Journeys in Literature: American Traditions, Volume C; The Great Gatsby* by F. Scott Fitzgerald; *The Glass Menagerie* by Tennessee Williams. Students will also read one selection of their choice from the following: *The Old Man and the Sea* by Ernest Hemingway; *The House on Mango Street* by Sandra Cisneros; *A Lesson Before Dying* by Ernest Gaines; *The Red Badge of Courage* by Stephen Crane; and two selections of their choice from the following: *Billy Budd*

by Herman Melville; *A Connecticut Yankee in King Arthur's Court* by Mark Twain; *Catcher in the Rye* by J.D. Salinger

Prerequisites: Success in ENG204: Honors Literary Analysis and Composition II (or equivalent) and teacher/school counselor recommendation

ENG306: AMERICAN LITERATURE (CREDIT RECOVERY)

Students sharpen their reading comprehension skills and analyze important themes in classic and modern works of American literature. They review effective strategies for written expression. They develop vocabulary skills and refresh their knowledge of grammar, usage, and mechanics in preparation for standardized tests. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: *Explorations: An Anthology of American Literature, Volume C*; *Our Town* by Thornton Wilder; *To Kill a Mockingbird* by Harper Lee

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

ENG402: BRITISH AND WORLD LITERATURE (CORE)

This course engages students in selections from British and world literature from the ancient world through modern times. They practice analytical writing and have opportunities for creative expression. Students also practice test-taking skills for standardized assessments in critical reading and writing.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Explorations: An Anthology of British and World Literature*

Prerequisites: ENG302: American Literature (or equivalent)

ENG403: BRITISH AND WORLD LITERATURE (COMPREHENSIVE)

Students read selections from British and world literature in a loosely organized chronological framework. They analyze the themes, styles, and structures of these texts and make thematic connections among diverse authors, periods, and settings. Students complete guided and independent writing assignments that refine their analytical skills. They have

opportunities for creative expression in projects of their choice. Students also practice test-taking skills for standardized assessments in critical reading and writing.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Journeys in Literature: British and World Classics*; *Hamlet* by William Shakespeare

Prerequisites: ENG303: American Literature (or equivalent)

ENG404: HONORS BRITISH AND WORLD LITERATURE

Students read selections from British and world literature in a loosely organized chronological framework. They analyze the themes, styles, and structures of these texts and make thematic connections among diverse authors, periods, and settings. Students work independently on many of their analyses and engage in creative collaboration with their peers. Students also practice test-taking skills for standardized assessments in critical reading and writing.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Journeys in Literature: British and World Classics*; *Hamlet* by William Shakespeare

Prerequisites: ENG304: Honors American Literature (or equivalent), and teacher/school counselor recommendation

ENG406: BRITISH AND WORLD LITERATURE (CREDIT RECOVERY)

This course engages students in selections from British and world literature from the ancient world through modern times. They practice analytical writing and have opportunities for creative expression. Students also practice test-taking skills for standardized assessments in critical reading and writing. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: *Explorations: An Anthology of British and World Literature*

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

ENG500: ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION

Students learn to understand and analyze complex works by a variety of authors. They explore the richness of language, including syntax, imitation, word choice, and tone. They also learn composition style and process, starting with exploration, planning, and writing. This continues with editing, peer review, rewriting, polishing, and applying what they learn to academic, personal, and professional contexts. In this equivalent of an introductory college-level survey class, students prepare for the AP Exam and for further study in communications, creative writing, journalism, literature, and composition.

Course Length: Two semesters

Materials: *The Norton Reader: An Anthology of Nonfiction*, 13th ed.; *Writing: A College Handbook*, 5th ed.

Prerequisites: ENG304: Honors American Literature (or equivalent), and teacher/school counselor recommendation

ENG510: AP ENGLISH LITERATURE AND COMPOSITION

In this course, the equivalent of an introductory college-level survey class, students are immersed in novels, plays, poems, and short stories from various periods. Students read and write daily, using a variety of multimedia and interactive activities, interpretive writing assignments, and discussions. The course places special emphasis on reading comprehension, structural and critical analyses of written works, literary vocabulary, and recognizing and understanding literary devices. Students prepare for the AP Exam and for further study in creative writing, communications, journalism, literature, and composition.

Course Length: Two semesters

Materials: Required (both semesters): *The Norton Anthology of Poetry*, 5th ed.; *The Story and Its Writer: An Introduction to Short Fiction*, compact 7th ed. Required (first semester): *Their Eyes Were Watching God* by Zora Neale Hurston; *Hedda Gabler* by Henrik Ibsen; *A Streetcar Named Desire* by Tennessee Williams; *Twelfth Night* by William Shakespeare. Required (second semester): *The Great Gatsby* by F. Scott Fitzgerald; *Annie John* by Jamaica Kincaid; *Jane Eyre* by Charlotte Brontë

Prerequisites: ENG304: Honors American Literature (or equivalent), and teacher/school counselor recommendation

MATH

(these courses fulfill the Math Credit Requirement)

MTH112: ALGEBRA I (CORE)

In this course, students explore the tools of algebra. Students learn to identify the structure and properties of the real number system; complete operations with integers and other rational numbers; work with square roots and irrational numbers; graph linear equations; solve linear equations and inequalities in one variable; solve systems of linear equations; use ratios, proportions, and percentages to solve problems; use algebraic applications in geometry including the Pythagorean theorem and formulas for measuring area and volume; complete an introduction to polynomials; and understand logic and reasoning.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Algebra I: A Reference Guide and Problem Sets* (eBook included)

Prerequisites: MTH112: Pre-Algebra (or equivalent)

Note: Students who have already succeeded in K¹² Middle School Algebra I should not enroll in this course.

MTH123: ALGEBRA I (COMPREHENSIVE)

Students develop algebraic fluency by learning the skills needed to solve equations and perform manipulations with numbers, variables, equations, and inequalities. They also learn concepts central to the abstraction and generalization that algebra makes possible. Topics include simplifying expressions involving variables, fractions, exponents, and radicals; working with integers, rational numbers, and irrational numbers; graphing and solving equations and inequalities; using factoring, formulas, and other techniques to solve quadratic and other polynomial equations; formulating valid mathematical arguments using various types of reasoning; and translating word problems into mathematical equations and then using the equations to solve the original problems. Compared to MTH122, this course has a more rigorous pace and more challenging assignments and assessments. It covers additional topics including translating functions, higher degree roots, and more complex factoring techniques.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Algebra I: Reference Guide and Problem Sets* (eBook included)

Prerequisites: K¹² Pre-Algebra, MTH113: Pre-Algebra (or equivalent)

Note: Students who have already succeeded in K¹² Middle School Algebra I should not enroll in this course.

MTH124: HONORS ALGEBRA I

This course prepares students for more advanced courses while they develop algebraic fluency, learn the skills needed to solve equations, and perform manipulations with numbers, variables, equations, and inequalities. They also learn concepts central to the abstraction and generalization that algebra makes possible. Topics include simplifying expressions involving variables, fractions, exponents, and radicals; working with integers, rational numbers, and irrational numbers; graphing and solving equations and inequalities; using factoring, formulas, and other techniques to solve quadratic and other polynomial equations; formulating valid mathematical arguments using various types of reasoning; and translating word problems into mathematical equations and then using the equations to solve the original problems. This course includes all the topics in MTH123, but includes more challenging assignments and optional challenge activities. Each semester also includes an independent honors project.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Algebra I: A Reference Guide and Problem Sets* (eBook included)

Prerequisites: Success in previous math course and teacher/school counselor recommendation

Note: Students who have already succeeded in K¹² Middle School Algebra I should not enroll in this course.

MTH126: ALGEBRA I (CREDIT RECOVERY)

Students are able to gain credit if they have previously completed this course but did not successfully earn credit. For each unit, students take a diagnostic test that assesses their current knowledge of fundamental content. The results of these tests help students create individualized study plans. In this course, students review the tools of algebra. Topics include the structure and properties of real numbers; operations with integers and other rational numbers; square roots and irrational numbers; linear equations; ratios, proportions, and percentages; the Pythagorean Theorem; polynomials; and logic and reasoning.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: *Algebra I: Reference Guide and Problem Sets*

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

MTH202: GEOMETRY (CORE)

Students learn to recognize and work with core geometric concepts in various contexts. They develop sound ideas of inductive and deductive reasoning, logic, concepts, and techniques of Euclidean plane and solid geometry, as well as a solid, basic understanding of mathematical structure, method, and applications of Euclidean plane and solid geometry. Students use visualizations, spatial reasoning, and geometric modeling to solve problems. Topics of study include points, lines, and angles; triangles; right triangles; quadrilaterals and other polygons; circles; coordinate geometry; three dimensional solids; geometric constructions; symmetry; and the use of transformations.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Geometry: A Reference Guide* (eBook included); a drawing compass, protractor, and ruler

Prerequisites: MTH122: Algebra I (or equivalent)

MTH203: GEOMETRY (COMPREHENSIVE)

In this comprehensive course, students are challenged to recognize and work with geometric concepts in various contexts. They build on ideas of inductive and deductive reasoning, logic, concepts, and techniques of Euclidean plane and solid geometry. They develop deeper understandings of mathematical structure, method, and applications of Euclidean plane and solid geometry. Students use visualizations, spatial reasoning, and geometric modeling to solve problems. Topics of study include points, lines, and angles; triangles; right triangles; quadrilaterals and other polygons; circles; coordinate geometry; three-dimensional solids; geometric constructions; symmetry; the use of transformations; and non-Euclidean geometries.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Geometry: A Reference Guide* (eBook included); a drawing compass, protractor, and ruler

Prerequisites: MTH123: Algebra I (or equivalent)

MTH204: HONORS GEOMETRY

Students work with advanced geometric concepts in various contexts. They build in-depth ideas of inductive and deductive reasoning, logic, concepts, and techniques of Euclidean plane and solid geometry. They also develop a sophisticated understanding of mathematical structure, method, and applications of Euclidean plane and solid geometry. Students use visualizations, spatial reasoning, and geometric modeling to solve problems. Topics of study include points, lines, and angles; triangles; right triangles; quadrilaterals and other polygons; circles; coordinate geometry; three-dimensional

solids; geometric constructions; symmetry; the use of transformations; and non-Euclidean geometries. Students work on additional challenging assignments, assessments, and research projects.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Geometry: A Reference Guide* (eBook included); A drawing compass, protractor, and ruler

Prerequisites: MTH123: Algebra I or MTH124: Honors Algebra I (or equivalent) and teacher/school counselor recommendation

MTH206: GEOMETRY (CREDIT RECOVERY)

Students are able to gain credit if they have previously completed this course but did not successfully earn credit. For each unit, students take a diagnostic test that assesses their current knowledge of fundamental content. The results of these tests help students create individualized study plans. Students move at their own pace and then are assessed by computer-scored unit tests for a grade. Teacher-graded assignments are available as optional or for review only. Students review core geometric concepts as they develop sound ideas of inductive and deductive reasoning, logic, concepts, and techniques and applications of Euclidean plane and solid geometry. Students use visualizations, spatial reasoning, and geometric modeling to solve problems. Topics include points, lines, and angles; triangles, polygons, and circles; coordinate geometry; three-dimensional solids; geometric constructions; symmetry; and the use of transformations.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: *Geometry: A Reference Guide*; a drawing compass, protractor, and ruler

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation, and MTH122: Algebra I (or equivalent)

MTH302: ALGEBRA II (CORE)

This course builds upon algebraic concepts covered in Algebra I. Students solve open-ended problems and learn to think critically. Topics include conic sections; functions and their graphs; quadratic functions; inverse functions; and advanced polynomial functions. Students are introduced to rational, radical, exponential, and logarithmic functions; sequences and series; and data analysis.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Algebra II: A Reference Guide and Problem Sets* (eBook included); Texas Instruments T1-84 Plus graphing calculator is recommended

Prerequisites: MTH122: Algebra I and MTH202: Geometry (or equivalent)

MTH303: ALGEBRA II (COMPREHENSIVE)

This course builds upon algebraic concepts covered in Algebra I and prepares students for advanced-level courses. Students extend their knowledge and understanding by solving open-ended problems and thinking critically. Topics include conic sections; functions and their graphs; quadratic functions; inverse functions; and advanced polynomial functions. Students are introduced to rational, radical, exponential, and logarithmic functions; sequences and series; and data analysis.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Algebra II: A Reference Guide and Problem Sets* (eBook included); Texas Instruments T1-84 Plus graphing calculator is recommended

Prerequisites: MTH123: Algebra I and MTH203: Geometry (or equivalents)

MTH304: HONORS ALGEBRA II

This course builds upon advanced algebraic concepts covered in Algebra I and prepares students for advanced-level courses. Students extend their knowledge and understanding by solving open-ended problems and thinking critically. Topics include functions and their graphs; quadratic functions; complex numbers, and advanced polynomial functions. Students are introduced to rational, radical, exponential, and logarithmic functions; sequences and series; probability; statistics; and conic sections. Students work on additional challenging assignments, assessments, and research projects.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Algebra II: A Reference Guide and Problem Sets* (eBook included); Texas Instruments T1-84 Plus graphing calculator is recommended

Prerequisites: MTH123 or MTH124 (Honors): Algebra I and MTH203 or MTH204 (Honors): Geometry (or equivalents) and teacher/school counselor recommendation

MTH306: ALGEBRA II (CREDIT RECOVERY)

Students are able to gain credit if they have previously completed this course but did not successfully earn credit. For each unit, students take a diagnostic test that assesses

their current knowledge of fundamental content. The results of these tests help students create individualized study plans. This course builds upon algebraic concepts covered in Algebra I. Students solve open-ended problems and learn to think critically. Topics include conic sections; functions and their graphs; quadratic functions; inverse functions; and advanced polynomial functions. Students review rational, radical, exponential, and logarithmic functions; sequences and series; and data analysis.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously

Materials: None

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation, and MTH122: Algebra I (or equivalent) and MTH202: Geometry (or equivalent)

MTH307: PRACTICAL MATH (CORE)

In this course, students use math to solve real-world problems—and real-world problems to solidify their understanding of key mathematical topics. Data analysis, math modeling, and personal finance are key themes in this course. Specific topics of study include statistics, probability, graphs of statistical data, regression, finance, and budgeting. In addition, students learn how to use several mathematical models involving algebra and geometry to solve problems. Proficiency is measured through frequent online and offline assessments, as well as class participation. Units focused on projects also allow students to apply and extend their math skills in real-world cases.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Practical Math: Reference Guide and Problem Sets* (eBook included)

Prerequisites: Algebra I and Geometry

TRIGONOMETRY

This course introduces students to the concepts of trigonometry. Students will learn about the basic trigonometric functions and how to graph these functions. Students will also learn how to solve right triangles and how to use law of Sines and Law of Cosines. Students will also explore how these concepts connect to real-world applications.

Course Length: One semester.

Materials: Texas Instruments T1-84 Plus graphing calculator is recommended

Prerequisites: Algebra II

PRE-CALCULUS

The purpose of this course is to investigate the major topics in Pre-Calculus and to prepare students to continue on to Calculus. After completing this course, students will understand polynomial functions, polar coordinates, complex numbers, conic sections, exponential functions, logarithmic functions, sequences, and series.

Course Length: One semester.

Materials: Texas Instruments T1-84 Plus graphing calculator is recommended

Prerequisites: Trigonometry

MTH413: PROBABILITY AND STATISTICS (COMPREHENSIVE)

Students learn counting methods, probability, descriptive statistics, graphs of data, the normal curve, statistical inference, and linear regression. Proficiency is measured through frequent online and offline assessments, as well as asynchronous discussions. Problem solving activities provide an opportunity for students to demonstrate their skills in real world situations.

Course Length: One semester

Materials: *Probability and Statistics: Reference Guide and Problem Sets* (eBook included)

Prerequisites: MTH303: Algebra II (or equivalent)

MTH433: CALCULUS (COMPREHENSIVE)

This course provides a comprehensive survey of differential and integral calculus concepts, including limits, derivative and integral computation, linearization, Riemann sums, the Fundamental Theorem of Calculus, and differential equations. Content is presented in 10 units and covers various applications, including graph analysis, linear motion, average value, area, volume, and growth and decay models.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: Texas Instruments T1-84 Plus graphing calculator is recommended

Prerequisites: Pre-Calculus and Trigonometry (or equivalent)

MTH500: AP CALCULUS AB

This course is the equivalent of an introductory college-level calculus course. Calculus helps scientists, engineers, and financial analysts understand the complex relationships behind real-world phenomena. Students learn to evaluate the soundness of proposed solutions and apply mathematical reasoning to real-world models. Students also

learn to understand change geometrically and visually (by studying graphs of curves), analytically (by studying and working with mathematical formulas), numerically (by seeing patterns in sets of numbers), and verbally. Students prepare for the AP exam and further studies in science, engineering, and mathematics.

Course Length: Two semesters

Materials: *Calculus: Problem Sets and Solutions*; Texas Instruments T1-84 Plus graphing calculator is recommended

Prerequisites: Success in MTH204: Honors Geometry, MTH304: Honors Algebra II, Pre-Calculus/Trigonometry (or equivalents), and teacher/school counselor recommendation

MTH510: AP STATISTICS

This course is the equivalent of an introductory college-level course. Statistics — the art of drawing conclusions from imperfect data and the science of real-world uncertainties — plays an important role in many fields. Students collect, analyze, graph, and interpret real-world data. They learn to design and analyze research studies by reviewing and evaluating examples from real research. Students prepare for the AP exam and for further study in science, sociology, medicine, engineering, political science, geography, and business.

Course Length: Two semesters

Materials: Texas Instruments T1-84 Plus graphing calculator is recommended

Prerequisites: Success in MTH304: Honors Algebra II (or equivalent) and teacher/school counselor recommendation

MTH520: AP CALCULUS BC

This course is the equivalent of an introductory college-level calculus course. In this course, students study functions, limits, derivatives, integrals, and infinite series. Calculus helps scientists, engineers, and financial analysts understand the complex relationships behind real-world phenomena. Students learn to evaluate the soundness of proposed solutions and apply mathematical reasoning to real-world models. Students also learn to understand change geometrically and visually (by studying graphs of curves), analytically (by studying and working with mathematical formulas), numerically (by seeing patterns in sets of numbers), and verbally. Students prepare for the AP Exam and further studies in science, engineering, and mathematics.

Course Length: Two semesters

Materials: Texas Instruments T1-84 Plus graphing calculator is recommended

Prerequisites: Success in MTH204: Honors Geometry, MTH304: Honors Algebra II, MTH403: Pre-Calculus/Trigonometry (or equivalents), and teacher/school counselor recommendation

MTH001: MATH FOUNDATIONS I (REMEDIATION)

Students build and reinforce foundational math skills typically found in third through fifth grade for which they have not achieved mastery. They progress through carefully paced, guided instruction and engaging interactive practice. Formative assessments identify areas of weakness and prescribe lessons to improve performance. Summative assessments track progress and skill development. If needed, students can move on to Math Foundations II (addressing skills typically found in sixth through eighth grade) to further develop the computational skills and conceptual understanding needed to undertake high school math courses with confidence.

Course Length: Two semesters

Materials: None

Prerequisites: Teacher/school counselor recommendation

MTH011: MATH FOUNDATIONS II (REMEDIATION)

Students build and reinforce foundational math skills typically found in sixth through eighth grade, achieving the computational skills and conceptual understanding needed to undertake high school math courses with confidence. Carefully paced, guided instruction is accompanied by interactive practice that is engaging and accessible. Formative assessments identify areas of weakness and prescribe lessons to improve performance. Summative assessments track progress and skill development. This course is appropriate for use as remediation at the high school level or as a bridge to high school.

Course Length: Two semesters

Materials: None

Prerequisites: Teacher/school counselor recommendation; MTH001: Math Foundations I is not required

SCIENCE

(these courses fulfill the Science Credit Requirement)

Many of the science courses will have lab assignments. Prior to these assignments, students will be responsible for obtaining some lab materials (such as common household items). The materials that are needed for each lab are listed in the Advanced Preparation section of the corresponding unit.

SCI102: PHYSICAL SCIENCE (CORE)

Students explore the relationship between matter and energy by investigating force and motion, the structure of atoms, the structure and properties of matter, chemical reactions, and the interactions of energy and matter. Students develop skills in measuring, solving problems, using laboratory apparatuses, following safety procedures, and adhering to experimental procedures. Students focus on inquiry-based learning, with both hands-on laboratory investigations and virtual laboratory experiences.

Course Length: Two semesters

Materials: None

Prerequisites: K¹² Middle School Physical Science (or equivalent)

SCI106: PHYSICAL SCIENCE (CREDIT RECOVERY)

Students explore the relationship between matter and energy by investigating force and motion, the structure of atoms, the structure and properties of matter, chemical reactions, and the interactions of energy and matter. They review strategies for describing and measuring scientific concepts. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: None

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

SCI112: EARTH SCIENCE (CORE)

This course provides students with a solid earth science curriculum, focusing on geology, oceanography, astronomy, weather, and climate. The program consists of online lessons, an associated reference book, collaborative activities, virtual laboratories, and hands-on laboratories students can conduct at home. The course provides a base for

further studies in geology, meteorology, oceanography, and astronomy, and gives practical experience in implementing scientific methods.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Earth Science: A Reference Guide*

Prerequisites: K¹² Middle School Earth Science (or equivalent)

SCI113: EARTH SCIENCE (COMPREHENSIVE)

This course provides students with a comprehensive earth science curriculum, focusing on geology, oceanography, astronomy, weather, and climate. The program consists of in-depth online lessons, an associated reference book, collaborative activities, and hands-on lab assignments that students can conduct at home. The course prepares students for further studies in geology, meteorology, oceanography, and astronomy courses, and gives them practical experience in implementing scientific methods. K¹² lab kits contain all lab materials that cannot easily be found in the home.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Earth Science: A Reference Guide*

Prerequisites: K¹² Middle School Earth Science (or equivalent)

SCI114: HONORS EARTH SCIENCE

This challenging course provides students with an honors-level earth science curriculum, focusing on geology, oceanography, astronomy, weather, and climate. The program consists of online lessons, an associated reference book, collaborative activities, and hands-on laboratories students can conduct at home. The course prepares students for advanced studies in geology, meteorology, oceanography, and astronomy courses, and gives them more sophisticated experience in implementing scientific methods. Additional honors assignments include debates, research papers, extended collaborative laboratories, and virtual laboratories.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Earth Science: A Reference Guide*

Prerequisites: K¹² Middle School Earth Science (or equivalent), success in previous science course, and teacher/school counselor recommendation

SCI116: EARTH SCIENCE (CREDIT RECOVERY)

This course provides students with a solid earth science curriculum. Students learn how the earth works, how it changes, and its place in the universe. They become familiar with the terminology, concepts, and practical applications of earth science and explore topics in geology, meteorology, oceanography, astronomy, and scientific methods. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: *Earth Science: A Reference Guide*

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

SCI202: BIOLOGY (CORE)

In this course, students focus on the chemistry of living things: the cell, genetics, evolution, the structure and function of living things, and ecology. The program consists of online lessons including extensive animations, an associated reference book, collaborative activities, virtual laboratories, and hands-on laboratory experiments students can conduct at home.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Biology: A Reference Guide*

Prerequisites: K¹² Middle School Life Science (or equivalent)

SCI203: BIOLOGY (COMPREHENSIVE)

In this comprehensive course, students investigate the chemistry of living things: the cell, genetics, evolution, the structure and function of living things, and ecology. The program consists of in-depth online lessons including extensive animations, an associated reference book, collaborative explorations, virtual laboratories, and hands-on laboratory experiments students can conduct at home.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Biology: A Reference Guide*

Prerequisites: K¹² Middle School Life Science (or equivalent)

SCI204: HONORS BIOLOGY

This course provides students with a challenging honors-level biology curriculum, focusing on the chemistry of living things: the cell, genetics, evolution, the structure and function of living things, and ecology. The program consists of advanced

online lessons including extensive animations, an associated reference book, collaborative explorations, and hands-on laboratory experiments students can conduct at home. Honors activities include debates, research papers, extended collaborative laboratories, and virtual laboratories.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Biology: A Reference Guide*

Prerequisites: K¹² Middle School Life Science (or equivalent), success in previous science course, and teacher/school counselor recommendation

SCI206: BIOLOGY (CREDIT RECOVERY)

Topics include the scientific method, characteristics of living things, energy, organic compounds, and water. Students review the structure and function of living things, the cell, genetics, DNA, RNA, and proteins. They review evolution and natural selection; digestive, respiratory, nervous, reproductive, and muscular systems; and ecology and the environment. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: *Biology: A Reference Guide*

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

SCI302: CHEMISTRY (CORE)

This course surveys all key areas of chemistry, including atomic structure, chemical bonding and reactions, solutions, stoichiometry, thermochemistry, organic chemistry, and nuclear chemistry. The course includes direct online instruction, virtual laboratories, and related assessments, used with a problem-solving book.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Chemistry: Problems and Solutions*

Prerequisites: SCI202: Biology and MTH122: Algebra I (or equivalents) and enrolled in MTH302 Algebra II

SCI303: CHEMISTRY (COMPREHENSIVE)

This comprehensive course gives students a solid basis to move on to future studies. The course provides an in-depth survey of all key areas, including atomic structure, chemical bonding and reactions, solutions, stoichiometry, thermochemistry, organic chemistry, and nuclear chemistry.

The course includes direct online instruction, virtual laboratories, and related assessments, used with a problem-solving book.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Chemistry: Problems and Solutions*

Prerequisites: SCI203: Comprehensive Biology and MTH123: Comprehensive Algebra I (or equivalents) and enrolled in MTH303 Comprehensive Algebra II

SCI304: HONORS CHEMISTRY

This advanced course gives students a solid basis to move on to more advanced courses. The challenging course surveys all key areas, including atomic structure, chemical bonding and reactions, solutions, stoichiometry, thermochemistry, organic chemistry, and nuclear chemistry, enhanced with challenging model problems and assessments. Students complete community-based written research projects, treat aspects of chemistry that require individual research and reporting, and participate in online threaded discussions.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Chemistry: Problems and Solutions*

Prerequisites: Prerequisites: SCI203: Comprehensive Biology and MTH123: Comprehensive Algebra I (or equivalents) and enrolled in MTH303 Comprehensive Algebra II

SCI306: CHEMISTRY (CREDIT RECOVERY)

Students review concepts of matter, energy, the metric system, and the scientific method. Other topics include the atom; the periodic table; ionic and covalent bonds; chemical reactions; stoichiometry; gases, liquids, and solids; solutions; and acids and bases. Students review chemical thermodynamics; reaction rates and system equilibrium; electrochemical processes; organic chemistry and biochemistry; and nuclear chemistry. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: *Chemistry: Problems and Solutions*

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

SCI403: PHYSICS (COMPREHENSIVE)

This course provides a comprehensive survey of all key areas: physical systems, measurement, kinematics, dynamics, momentum, energy, thermodynamics, waves, electricity, and magnetism, and introduces students to modern physics topics such as quantum theory and the atomic nucleus. The course gives students a solid basis to move on to more advanced courses later in their academic careers. The program consists of online instruction, virtual laboratories, and related assessments, plus an associated problem-solving book.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Physics: Problems and Solutions*

Prerequisites: MTH303: Algebra II and Pre-Calculus/Trigonometry (or equivalents)

SCI404: HONORS PHYSICS

This advanced course surveys all key areas: physical systems, measurement, kinematics, dynamics, momentum, energy, thermodynamics, waves, electricity, and magnetism, and introduces students to modern physics topics such as quantum theory and the atomic nucleus. Additional honors assignments include debates, research papers, extended collaborative laboratories, and virtual laboratories. The course gives a solid basis for moving on to more advanced college physics courses. The program consists of online instruction, virtual laboratories, and related assessments, plus an associated problem-solving book.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Physics: Problems and Solutions*

Prerequisites: MTH303: Algebra II or MTH304: Honors Algebra II and Pre-Calculus/Trigonometry (or equivalents), and teacher/school counselor recommendation

SCI500: AP BIOLOGY

This course guides students to a deeper understanding of biological concepts including the diversity and unity of life, energy and the processes of life, homeostasis, and genetics. Students learn about regulation, communication, and signaling in living organisms, as well as interactions of biological systems. Students carry out a number of learning activities, including readings, interactive exercises, extension activities, hands-on laboratory experiments, and practice assessments. These activities are designed to help students gain an understanding of the science process and critical-thinking skills necessary to answer questions on the AP Biology Exam. The content aligns to the sequence of topics recommended by the College Board.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: Common household materials for labs

Prerequisites: Success in SCI204: Honors Biology, SCI303: Comprehensive Chemistry, MTH124: Honors Algebra I (or equivalents), and teacher/school counselor recommendation required; MTH304: Honors Algebra II highly recommended

SCI510: AP CHEMISTRY

Students solve chemical problems by using mathematical formulation principles and chemical calculations in addition to laboratory experiments. They build on their general understanding of chemical principles and engage in a more in-depth study of the nature and reactivity of matter. Students focus on the structure of atoms, molecules, and ions, and then go on to analyze the relationship between molecular structure and chemical and physical properties. To investigate this relationship, students examine the molecular composition of common substances and learn to transform them through chemical reactions with increasingly predictable outcomes. Students prepare for the AP exam. The course content aligns to the sequence of topics recommended by the College Board.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: If hands-on labs are required, materials for lab experiments must be acquired by students. Jespersen, Neil D., Brady, James E., and Hyslop, Alison. *Chemistry: The Molecular Nature of Science*. New York: John Wiley & Sons. 2011.

Prerequisites: Success in SCI304: Honors Chemistry and MTH304: Honors Algebra II (or equivalents), and teacher/school counselor recommendation

SCI530: AP ENVIRONMENTAL SCIENCE

Students examine the natural world's interrelationships in AP Environmental Science. During this two-semester course, they identify and analyze environmental problems and their effects and evaluate the effectiveness of proposed solutions. They learn to think like environmental scientists as they make predictions based on observation, write hypotheses, design and complete field studies and experiments, and reach conclusions based on the analysis of resulting data. Students apply the concepts of environmental science to their everyday experiences, current events, and issues in science, politics, and society. The course provides opportunities for guided inquiry and student-centered learning that build critical thinking skills. Prerequisites for enrollment include two years of prior coursework in laboratory sciences (Biology, Chemistry, Earth Science, or Physics).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *Living in the Environment* - 17th Edition; AP Environmental Science Lab Kit

Prerequisites: Success in two years of laboratory sciences in the following (or equivalents): usually SCI114 Honors Earth Science and either SCI204 or SCI500 (AP): Biology, and either SCI304 or SCI510 (AP): Chemistry or SCI404 or SCI520 (AP): Physics; and MTH124: Honors Algebra I, and teacher/school counselor recommendation

SCI010: ENVIRONMENTAL SCIENCE

This course surveys key topic areas including the application of scientific process to environmental analysis; ecology; energy flow; ecological structures; earth systems; and atmospheric, land, and water science. Topics also include the management of natural resources and analysis of private and governmental decisions involving the environment. Students explore actual case studies and conduct five hands-on, unit-long research activities, learning that political and private decisions about the environment and the use of resources require accurate application of scientific processes, including proper data collection and responsible conclusions.

Course Length: One semester

Materials: None

Prerequisites: Success in previous high school science course and teacher/school counselor recommendation

SCI030: FORENSIC SCIENCE

This course surveys key topics in forensic science, including the application of the scientific process to forensic analysis, procedures and principles of crime scene investigation, physical and trace evidence, and the law and courtroom procedures from the perspective of the forensic scientist. Through online lessons, virtual and hands-on labs, and analysis of fictional crime scenarios, students learn about forensic tools, technical resources, forming and testing hypotheses, proper data collection, and responsible conclusions.

Course Length: One semester

Materials: None

Prerequisites: Successful completion of at least two years of high school science including SCI203: Biology (or equivalent) and SCI303: Chemistry (or equivalent)

HISTORY and SOCIAL SCIENCES

(these courses fulfill the History Credit Requirement)

HST102: WORLD HISTORY (CORE)

In this survey of world history from prehistoric to modern times, students focus on the key developments and events that have shaped civilization across time. The course is organized chronologically and, within broad eras, regionally. Lessons address developments in religion, philosophy, the arts, science and technology, and political history. The course also introduces geography concepts and skills within the context of the historical narrative. Online lessons and assessments complement *World History: Our Human Story*, a textbook written and published by K¹². Students analyze primary sources and maps, create timelines, and complete other projects—practicing historical thinking and writing skills as they explore the broad themes and big ideas of human history.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in semester A is required to enroll in the B semester.

Materials: *World History: Our Human Story*

Prerequisites: K¹² Middle School American History A, World History A or World History B (or equivalents)

HST103: WORLD HISTORY (COMPREHENSIVE)

In this comprehensive survey of world history from prehistoric to modern times, students focus in depth on the developments and events that have shaped civilization across time. The course is organized chronologically and, within broad eras, regionally. Lessons address developments in religion, philosophy, the arts, science and technology, and political history. The course also introduces geography concepts and skills within the context of the historical narrative. Online lessons and assessments complement *World History: Our Human Story*, a textbook written and published by K¹². Students are challenged to consider topics in depth as they analyze primary sources and maps, create timelines, and complete other projects—practicing historical thinking and writing skills as they explore the broad themes and big ideas of human history.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *World History: Our Human Story*

Prerequisites: K¹² Middle School American History A, World History A or World History B (or equivalents)

HST104: HONORS WORLD HISTORY

In this challenging survey of world history from prehistoric to modern times, students focus in-depth on the developments and events that have shaped civilization across time. The course is organized chronologically and, within broad eras, regionally. Lessons address developments in religion, philosophy, the arts, science and technology, and political history. The course also introduces geography concepts and skills within the context of the historical narrative. Online lessons and assessments complement *World History: Our Human Story*, a textbook written and published by K¹². Students are challenged to consider topics in depth as they analyze primary sources and maps, create timelines, and complete other projects—practicing advanced historical thinking and writing skills as they explore the broad themes and big ideas of human history. Students complete an independent honors project each semester.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *World History: Our Human Story*

Prerequisites: K¹² Middle School American History A, World History A or World History B (or equivalents)

HST106: WORLD HISTORY (CREDIT RECOVERY)

This course traces the development of civilizations around the world from prehistory to the present, with a special emphasis on key periods and primary sources. The course covers major events in world history, including the development and influence of human-geographic relationships, political and social structures, economics, science and technology, and the arts. Students investigate the major religions and belief systems throughout history and learn about the importance of trade and cultural exchange. Other topics include the development of agriculture, the spread of democracy, the rise of nation-states, the industrial era, the spread of imperialism, and the issues and conflicts of the twentieth century. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: None

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

HST202: MODERN WORLD STUDIES (CORE)

Students trace the history of the world from approximately 1870 to the present. They begin with a look back at events leading up to 1914, including the Second Industrial Revolution

and the imperialism that accompanied it. Their focus then shifts to the contemporary era, including two world wars, the Great Depression, and global Cold War tensions. Students examine both the staggering problems and astounding accomplishments of the twentieth century, with a focus on political and social history. Students also explore topics in physical and human geography, and investigate issues of concern in the contemporary world. Online lessons help students organize study, explore topics, review in preparation for assessments, and practice skills of historical thinking and analysis. Activities include analyzing primary sources and maps, creating timelines, completing projects and written assignments, and conducting independent research.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *The Human Odyssey*, Volume 3

Prerequisites: K¹² Middle School Intermediate World History A and B (or equivalents)

HST203: MODERN WORLD STUDIES (COMPREHENSIVE)

In this comprehensive course, students follow the history of the world from approximately 1870 to the present. They begin with a study of events leading up to 1914, including the Second Industrial Revolution and the imperialism that accompanied it. Their focus then shifts to the contemporary era, including two world wars, the Great Depression, and global Cold War tensions. Students examine both the staggering problems and astounding accomplishments of the twentieth century, with a focus on political and social history. Students also explore topics in physical and human geography, and investigate issues of concern in the contemporary world. Online lessons help students organize study, explore topics, review in preparation for assessments, and practice sophisticated skills of historical thinking and analysis. Activities include analyzing primary sources and maps, creating timelines, completing projects and written assignments, and conducting independent research.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *The Human Odyssey*, Volume 3

Prerequisites: K¹² Middle School Intermediate World History A and B (or equivalents)

HST204: HONORS MODERN WORLD STUDIES

In this advanced course, students investigate the history of the world from approximately 1870 to the present. They begin with an analysis of events leading up to 1914, including the Second Industrial Revolution and the imperialism that accompanied it. Their focus then shifts to the contemporary era, including two world wars, the Great Depression, and global Cold War

tensions. Students undertake an in-depth examination of both the staggering problems and astounding accomplishments of the twentieth century, with a focus on political and social history. Students also explore advanced topics in physical and human geography, and investigate issues of concern in the contemporary world. Activities include analyzing primary sources and maps, creating timelines, completing projects and written assignments, and conducting research. Students complete independent projects each semester.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *The Human Odyssey*, Volume 3

Prerequisites: K¹² Middle School Intermediate World History A and B (or equivalents), success in previous social studies course, and teacher/school counselor recommendation

HST302: U.S. HISTORY (CORE)

This course is a full-year survey that provides students with a view of American history from the first migrations of nomadic people to North America to recent events. Readings are drawn from K¹²'s *The American Odyssey: A History of the United States*. Online lessons help students organize their study, explore topics, review in preparation for assessments, and practice skills of historical thinking and analysis. Activities include analyzing primary sources and maps, creating timelines, completing projects and written assignments, and conducting independent research.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *The American Odyssey: A History of the United States*

Prerequisites: K¹² Middle School Intermediate World History B or HST102: World History (or equivalents)

HST303: U.S. HISTORY (COMPREHENSIVE)

This course is a full-year survey that provides students with a comprehensive view of American history from the first migrations of nomadic people to North America to recent events. Readings are drawn from K¹²'s *The American Odyssey: A History of the United States*. Online lessons help students organize their study, explore topics in depth, review in preparation for assessments, and practice skills of historical thinking and analysis. Activities include analyzing primary sources and maps, creating time lines, completing projects and written assignments, and conducting independent research.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *The American Odyssey: A History of the United States* (eBook included)

Prerequisites: HST103: World History or HST203: Modern World Studies (or equivalents)

HST304: HONORS U.S. HISTORY

This course is a challenging full-year survey that provides students with a comprehensive view of American history from the first migrations of nomadic people to North America to recent events. Readings are drawn from K¹²'s *The American Odyssey: A History of the United States*. Online lessons help students organize their study, explore topics in depth, review in preparation for assessments, and practice advanced skills of historical thinking and analysis. Activities include analyzing primary sources and maps, creating timelines, completing projects and written assignments, and conducting independent research. Students complete independent projects each semester.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *The American Odyssey: A History of the United States*

Prerequisites: HST103 or HST104 (Honors): World History, or HST203 or HST204 (Honors): Modern World Studies (or equivalents), and teacher/school counselor recommendation

HST306: U.S. HISTORY (CREDIT RECOVERY)

Students review the rise of European nations and the Age of Exploration; the founding of the American colonies; the American Revolution; and the Declaration of Independence, the Articles of Confederation, and the Constitution. Other topics include the Civil War, migration across the Great Plains, immigration to American shores, and the rise of new ways of manufacturing. Students review the early years of the modern age and the rise of modern cities and our modern political system; the World Wars; the Depression and the New Deal; the Cold War; Vietnam; the opposing ideologies of conservatives and liberals; September 11; and the resultant changes in American foreign and domestic policies. Diagnostic tests assess students' current knowledge and generate individualized study plans, so students can focus on topics that need review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: None

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

HST402: U.S. GOVERNMENT AND POLITICS (CORE)

This course uses the perspective of political institutions to explore government history, organization, and functions. Students encounter the political culture of our country from the Declaration of Independence to the present day, gaining insight into the challenges faced by presidents, members of Congress, and other political participants. The course also covers the roles of political parties, interest groups, the media, and the Supreme Court. Students learn to use primary historical documents as evidence in evaluating past events and government functions.

Course Length: One semester

Materials: None

Prerequisites: HST302: U.S. History (or equivalent) is recommended, but not required

HST403: U.S. GOVERNMENT AND POLITICS (COMPREHENSIVE)

This course studies the history, organization, and functions of the United States government. Beginning with the Declaration of Independence and continuing through to the present day, students explore the relationship between individual Americans and our governing bodies. Students take a close look at the political culture of our country and gain insight into the challenges faced by citizens, elected government officials, political activists, and others. Students also learn about the roles of political parties, interest groups, the media, and the Supreme Court, and discuss their own views on current political issues.

Course Length: One semester

Materials: None

Prerequisites: HST303: U.S. History (or equivalent) is recommended, but not required

HST406: AMERICAN GOVERNMENT (CREDIT RECOVERY)

This one-semester credit recovery course covers the historical backgrounds, governing principles, and institutions of the government of the United States. The focus is on the principles and beliefs that the United States was founded on and on the structure, functions, and powers of government at the national, state, and local levels. In American Government, students examine the principles of popular sovereignty, separation of powers, checks and balances, republicanism, federalism, and individual rights. They also learn about the roles of individuals and groups in the American political system. Students compare the American system of government with other modern systems and assess the strengths and problems associated with the American version.

Course Length: One semester

Materials: None

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

HST412: U.S. AND GLOBAL ECONOMICS (CORE)

This course in economic principles uses real-world simulations to teach the issues faced by producers, consumers, investors, and taxpayers in the U.S. and around the world. Topics include markets; supply and demand; theories of early economic thinkers; theories of value; money; the role of banks, investment houses, and the Federal Reserve; and other fundamental features of capitalism. A survey of current issues in American and global markets rounds out the course.

Course Length: One semester

Materials: None

Prerequisites: HST402: U.S. Government and Politics (or equivalent) is recommended, but not required

HST413: U.S. AND GLOBAL ECONOMICS (COMPREHENSIVE)

In this course on economic principles, students explore choices they face as producers, consumers, investors, and taxpayers. Students apply what they learn to real-world simulation problems. Topics of study include markets from historic and contemporary perspectives; supply and demand; theories of early economic philosophers such as Adam Smith and David Ricardo; theories of value; money (what it is, how it evolved, the role of banks, investment houses, and the Federal Reserve); Keynesian economics; how capitalism functions, focusing on productivity, wages, investment, and growth; issues of capitalism, such as unemployment, inflation, and the national debt; and a survey of markets in such areas as China, Europe, and the Middle East.

Course Length: One semester

Materials: None

Prerequisites: HST403: U.S. Government and Politics (or equivalent) is recommended, but not required

HST416: ECONOMICS (CREDIT RECOVERY)

In this one-semester credit recovery course, students gain a basic understanding of economics. The course uses real-world economic applications to help students better grasp a range of economic concepts, including macro- and microeconomic concepts. The course covers the American free enterprise system and addresses how this system affects the global economy. Students learn how to think like economists as they study economic principles and different economic systems. They analyze and interpret data to understand the laws

of supply and demand. Examining the world of business, money, banking, and finance helps students understand how economics is applied both domestically and globally.

Course Length: One semester

Materials: None

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

HST500: AP U.S. HISTORY

Students explore and analyze the economic, political, and social transformation of the United States since the time of the first European encounters. Students are asked to master not only the wide array of factual information necessary to do well on the AP exam, but also to practice skills of critical analysis of historical information and documents. Students read primary and secondary source materials and analyze problems presented by historians to gain insight into challenges of interpretation and the ways in which historical events have shaped American society and culture. The content aligns to the sequence of topics recommended by the College Board and to widely used textbooks. This course prepares students for the AP Exam.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: *America: A Narrative History, 9th ed.* George Tindall and David E. Shi (W.W. Norton, 2013)

Prerequisites: Success in previous history course and teacher/school counselor recommendation

HST510: AP U.S. GOVERNMENT AND POLITICS

This course is the equivalent of an introductory college-level course. Students explore the operations and structure of the U.S. government and the behavior of the electorate and politicians. Students gain the analytical perspective necessary to evaluate political data, hypotheses, concepts, opinions, and processes and learn how to gather data about political behavior and develop their own theoretical analysis of American politics. Students also build the skills they need to examine general propositions about government and politics, and to analyze specific relationships between political, social, and economic institutions. Students prepare for the AP Exam and for further study in political science, law, education, business, and history.

Course Length: One semester

Materials: *The Lanahan Readings in the American Polity*, 5th ed.; *American Government*, by Lowi et al., 12th ed.; other editions acceptable

Prerequisites: Success in HST304: Honors U.S. History (or equivalent) and teacher/school counselor recommendation

HST520: AP MACROECONOMICS

This course is the equivalent of an introductory college-level course. Students learn why and how the world economy can change from month to month, how to identify trends in our economy, and how to use those trends to develop performance measures and predictors of economic growth or decline. Students also examine how individuals and institutions are influenced by employment rates, government spending, inflation, taxes, and production. Students prepare for the AP Exam and for further study in business, political science, and history.

Course Length: One semester

Materials: *Economics for Today, 7th edition. Irvin B. Tucker South-Western Cengage Learning, 2011. (6th edition also acceptable.)*

Prerequisites: Success in MTH304: Honors Algebra II (or equivalent) and teacher/school counselor recommendation

HST530: AP MICROECONOMICS

This course is the equivalent of an introductory college-level course. Students explore the behavior of individuals and businesses as they exchange goods and services in the marketplace. Students learn why the same product can cost different amounts at different stores, in different cities, and at different times. Students also learn to spot patterns in economic behavior and learn how to use those patterns to explain buyer and seller behavior under various conditions. Lessons promote an understanding of the nature and function of markets, the role of scarcity and competition, the influence of factors such as interest rates on business decisions, and the role of government in the economy. Students prepare for the AP Exam and for further study in business, history, and political science.

Course Length: One semester

Materials: *Economics for Today, 7th edition. Irvin B. Tucker South-Western Cengage Learning, 2011. (6th edition also acceptable.)*

Prerequisites: Success in MTH304: Honors Algebra II (or equivalent) and teacher/school counselor recommendation

HST540: AP PSYCHOLOGY

This course is the equivalent of an introductory college-level course. Students receive an overview of current psychological research methods and theories. They explore the therapies used by professional counselors and clinical psychologists, and examine the reasons for normal human reactions: how people learn and think, the process of human development and human aggression, altruism, intimacy, and self-reflection. They study core psychological concepts, such as the brain and sensory functions, and learn to gauge human reactions,

gather information, and form meaningful syntheses. Students prepare for the AP Exam and for further studies in psychology and life sciences.

Course Length: One semester

Materials: *Psychology* by David G. Myers, 9th ed.

Prerequisites: Success in SCI204: Honors Biology (or equivalent) and teacher/school counselor recommendation

HST560: AP WORLD HISTORY

This course spans the Neolithic Age to the present in a rigorous academic format organized by chronological periods and viewed through fundamental concepts and course themes. Students analyze the causes and processes of continuity and change across historical periods. Themes include human-environment interaction, cultures, expansion and conflict, political and social structures, and economic systems. In addition to mastering historical content, students cultivate historical thinking skills that involve crafting arguments based on evidence, identifying causation, comparing and supplying context for events and phenomenon, and developing historical interpretation. This course prepares students for the AP World History Exam.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in semester A is required to enroll in the B semester.

Materials: *Siddhartha* by Herman Hesse; *King Leopold's Ghost: A Story of Greed, Terror, and Heroism in Colonial Africa* by Adam Hochschild (supplied by school or student)

Prerequisites: Success in previous history course and teacher/school counselor recommendation

HEALTH AND P.E.

OTH010: SKILLS FOR HEALTH

This course focuses on important skills and knowledge in nutrition; physical activity; the dangers of substance use and abuse; sex education; injury prevention and safety; growth and development; and personal health, environmental conservation, and community health resources. The curriculum is designed around topics and situations that engage student discussion and motivate students to analyze internal and external influences on their health-related decisions. The course helps students build the skills they need to protect, enhance, and promote their own health and the health of others.

Course Length: One semester

Materials: None

Prerequisites: None

OTH020: PHYSICAL EDUCATION

This course combines online instructional guidance with student participation in weekly cardiovascular, aerobic, muscle-toning, and other activities. Students fulfill course requirements by keeping weekly logs of their physical activity. The course promotes the value of lifetime physical activity and includes instruction in injury prevention, nutrition and diet, and stress management. Students may enroll in the course for either one or two semesters, and repeat for further semesters as needed to fulfill state requirements. Students will earn a standard letter grade for completing this course.

Course Length: One semester

Materials: None

Prerequisites: None

PHYSICAL EDUCATION B

This high school course focuses on the fundamental components and principles of fitness. Physical Education examines safety guidelines, proper technique, and exercise principles such as FITT: Frequency (how often you exercise), Intensity (how hard you work during exercise), Time (how long you exercise), and Type (what type of activity you do). Students assess their current level of fitness in relation to the five components of physical fitness: flexibility, cardiovascular health, muscular strength, muscular endurance, and body composition. This course equips students with strategies to help them begin, design, and maintain an exercise program to keep them fit for life.

Course Length: One semester

Materials: None

Prerequisites: OTH020: Physical Education (or equivalent)

WORLD LANGUAGES

(these courses fulfill the World Language Credit Requirement)

WLG100: SPANISH I

Students begin their introduction to Spanish by focusing on the four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide

range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various Spanish-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; Spanish/English dictionary.

Prerequisites: None

Note: Students who have already completed K¹² Middle School Spanish 2 should enroll in Spanish II rather than in Spanish I.

WLG106: SPANISH I (CREDIT RECOVERY)

This credit recovery course provides students with instruction in the basics of learning the language of Spanish. Content includes topics such as greetings, time, dates, colors, clothing, numbers, weather, family, houses, sports, food and drink, and school. The course also introduces basic and stem-changing verbs and their formation and use in the present tense. Students also learn about interrogatives, question formation, and adjectives and their form and use, in addition to possessives, prepositions, and other grammatical structures. Finally, students become acquainted with the Spanish speaking countries of the world and their cultures, and they learn practical information, such as restaurant vocabulary and expressions of invitation.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously.

Materials: A speaker and microphone are necessary; A headset combination is recommended; Spanish/English dictionary.

Prerequisites: Student previously took the course or its equivalent but did not receive credit, and also needs teacher/school counselor recommendation

WLG200: SPANISH II

Students continue their study of Spanish by further expanding their knowledge of key vocabulary topics and grammar concepts. Students not only begin to comprehend listening and reading passages more fully, but they also start to express themselves more meaningfully in both speaking and writing. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should

expect to be actively engaged in their own language learning, understand common vocabulary terms and phrases, use a wide range of grammar patterns in their speaking and writing, participate in conversations and respond appropriately to conversational prompts, analyze and compare cultural practices, products, and perspectives of various Spanish-speaking countries, and take frequent assessments where their language progression can be monitored. By semester 2, the course is conducted almost entirely in Spanish. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; Spanish/English dictionary.

Prerequisites: WLG100: Spanish I, K¹² Middle School Spanish 1 and 2 (or equivalents)

WLG300: SPANISH III

Students further deepen their understanding of Spanish by focusing on the three modes of communication: interpretive, interpersonal, and presentational. Each unit consists of a variety of activities which teach the students how to understand more difficult written and spoken passages, to communicate with others through informal speaking and writing interactions, and to express their thoughts and opinions in more formal spoken and written contexts. Students should expect to be actively engaged in their own language learning, use correct vocabulary terms and phrases naturally, incorporate a wide range of grammar concepts consistently and correctly while speaking and writing, participate in conversations covering a wide range of topics and respond appropriately to conversational prompts, analyze and compare cultural practices, products, and perspectives of various Spanish-speaking countries, read and analyze important pieces of Hispanic literature, and take frequent assessments where their language progression can be monitored. The course is conducted almost entirely in Spanish. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; Spanish/English dictionary

Prerequisites: WLG200: Spanish II (or equivalent)

WLG400: SPANISH IV

Fourth-year Spanish expands on the foundation of Spanish grammar and vocabulary that students acquired in the first three courses. As with all the earlier offerings, this culminating-level Spanish language course conforms to the standards of the American Council on the Teaching of Foreign Languages (ACTFL). Students continue to sharpen their speaking, listening, reading and writing skills while also learning to express themselves on topics relevant to Spanish culture. The two-semester course is divided into ten units whose themes include people, achievements, wishes and desires, activities, celebrations, possibilities, the past, the arts, current events, and wrap up and review.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; Spanish/English dictionary.

Prerequisites: WLG300: Spanish III (or equivalent)

WLG500: AP SPANISH LANGUAGE AND CULTURE

The AP Spanish Language and Culture course is an advanced language course in which students acquire proficiencies that expand their cognitive, analytical and communicative skills. The AP Spanish Language and Culture course prepares students for the College Board's AP Spanish Language and Culture exam. It uses as its foundation the three modes of communication (Interpersonal, Interpretive and Presentational) as defined in the Standards for Foreign Language Learning in the 21st Century. The course is designed as an immersion experience and is conducted almost exclusively in Spanish. In addition, all student work, practices, projects, participation, and assessments are in Spanish. The course teaches language structures in context and focuses on the development of fluency to convey meaning. Students explore culture in both contemporary and historical contexts to develop an awareness and appreciation of cultural products, practices, and perspectives. In addition, students participate in a forum where they are able to share their own opinions and comments about various topics and comment on other students' posts. The course also makes great use of the Internet for updated and current material.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; Spanish/English dictionary.

Prerequisites: Strong success in WLG300: Spanish III, or success in WLG400: Spanish IV (or equivalents), and teacher/school counselor recommendation

WLG110: FRENCH I

Students begin their introduction to French by focusing on the four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various French-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; French/English dictionary.

Prerequisites: None

Note: Students who have already completed K¹² Middle School French 2 should enroll in French II rather than in French I.

WLG210: FRENCH II

Students continue their study of French by further expanding their knowledge of key vocabulary topics and grammar concepts. Students not only begin to comprehend listening and reading passages more fully, but they also start to express themselves more meaningfully in both speaking and writing. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, understand common vocabulary terms and phrases, use a wide range of grammar patterns in their speaking and writing, participate in conversations and respond appropriately to conversational prompts, analyze and compare cultural practices, products, and perspectives of various French-speaking countries, and take frequent assessments where their language progression can be monitored. By semester 2, the course is conducted almost entirely in French. The

course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; French/English dictionary.

Prerequisites: WLG110: French I, K¹² Middle School French 1 and 2 (or equivalents)

WLG310: FRENCH III

interpretive, interpersonal, and presentational. Each unit consists of a variety of activities which teach the students how to understand more difficult written and spoken passages, to communicate with others through informal speaking and writing interactions, and to express their thoughts and opinions in both formal and Informal spoken and written contexts. Students should expect to be actively engaged in their own language learning, use correct vocabulary terms and phrases naturally, incorporate a wide range of grammar concepts consistently and correctly while speaking and writing, participate in conversations covering a wide range of topics, respond appropriately to conversational prompts, analyze and compare cultural practices, products, and perspectives of various French-speaking countries, read and analyze important pieces of literature, and take frequent assessments where their language progression can be monitored. The course is conducted almost entirely in French. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; French/English dictionary.

Prerequisites: WLG210: French II (or equivalent)

WLG410: FRENCH IV

Students complete their high school French language education with this two-semester course that, like all of its predecessors, conforms to the national standards of the ACTFL. The instructional material in French IV enables students to use the conditional and subjunctive tenses, and talk about the past with increasing ease, distinguishing which tense to use and when. It also helps students hone their listening skills to enhance their understanding of native speech patterns on familiar topics. Students expand their knowledge of French-speaking countries' culture, history, and geography and learn about francophone contributions in the arts. Students must pass French III as a prerequisite.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; French/English dictionary.

Prerequisites: WLG310: French III (or equivalent)

WLG510: AP FRENCH LANGUAGE AND CULTURE

The AP French Language and Culture course is an advanced language course in which students are directly prepared for the AP French Language and Culture test. It uses as its foundation the three modes of communication: interpersonal, interpretive and presentational. The course is conducted almost exclusively in French. The course teaches language structures in context and focuses on the development of fluency to convey meaning. Students explore culture in both contemporary and historical contexts to develop an awareness and appreciation of cultural products, practices, and perspectives. Students should expect to listen to, read, and understand a wide-variety of authentic French-language materials and sources, demonstrate proficiency in interpersonal, interpretive, and presentational communication using French, gain knowledge and understanding of the cultures of the Francophone world, use French to connect with other disciplines and expand knowledge in a wide-variety of contexts, develop insight into the nature of the French language and its culture, and use French to participate in communities at home and around the world. The AP French Language course is a college level course. The intensity, quality, and amount of course material can be compared to that of a third-year college course.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; French/English dictionary.

Prerequisites: Strong success in WLG310: French III, or success in WLG410: French IV (or equivalents), and teacher/school counselor recommendation

WLG120: GERMAN I

Students begin their introduction to German by focusing on the four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively

engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations, respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various German-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages). Note: Students who have already completed K¹² Middle School German 2 should enroll in German II rather than in German I.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended. German/English dictionary.

Prerequisites: None

WLG220: GERMAN II

Students continue their study of German by further expanding their knowledge of key vocabulary topics and grammar concepts. Students not only begin to comprehend listening and reading passages more fully, but they also start to express themselves more meaningfully in both speaking and writing. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, understand common vocabulary terms and phrases, use a wide range of grammar patterns in their speaking and writing, participate in conversations, respond appropriately to conversational prompts, analyze and compare cultural practices, products, and perspectives of various German-speaking countries, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended. German/English dictionary.

Prerequisites: WLG120: German I, K¹² Middle School German 1 and 2 (or equivalents)

WLG320: GERMAN III

This course expands the scope of concepts and information that students mastered in the German I and II courses and aligns with national ACTFL standards. Students learn increasingly complex grammatical constructions, such as present, imperfect, perfect, and future tenses; reflexive and modal verbs; prepositions; conjunctions; relative pronouns; and adjective endings. Unit themes in this two-semester course include vacations, travel, leisure time, healthy living, body parts and ailments, family members, rights and responsibilities, household chores, university study, military service, personal relationships, the importance of appearance, emotions, fairy tales, and animals. Unit activities blend different forms of communication and culture.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: LA speaker and microphone are necessary; a headset combination is recommended; German/English dictionary.

Prerequisites: WLG220: German II (or equivalent)

WLG420: GERMAN IV

German IV builds on the foundation of the first three courses. Students continue to sharpen their speaking, listening, reading, and writing skills while also learning to express themselves on topics relevant to German culture. Authentic texts, current culture, and literature from Germany, Austria, and Switzerland all form part of the instructional material for this course. Each unit focuses on a particular region or city and includes such themes as culture, tourism, and current events. These units cover topics such as contemporary and classical music, expressing opinion, German history, transportation, family weekend travel, shopping, free-time activities, technology, multiculturalism, education, and careers.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; a headset combination is recommended; German/English dictionary.

Prerequisites: WLG320: German III (or equivalent)

WLG130: LATIN I

Since mastering a classical language presents different challenges from learning a spoken world language, students learn Latin through ancient, time-honored, classical language approaches which include repetition, parsing, written composition, and listening exercises. These techniques, combined with a modern multimedia approach to learning grammar, syntax, and vocabulary, provide students with a strong foundation for learning Latin. Each unit consists of a new vocabulary theme and grammar concept, reading

comprehension activities, writing activities, multimedia culture, history, and mythology presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on engaging with authentic classical Latin through weekly encounters with ancient passages from such prestigious authors as Virgil, Ovid, and Lucretius. The curriculum concurs with the Cambridge school of Latin; therefore, students will learn ancient high classical styles of pronunciation and grammar in lieu of generally less sophisticated medieval styles, making it possible for students to comprehend the most Latin from the widest range of time periods. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, understand and analyze the cultural and historical contexts of the ancient sources they study, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; a headset combination is recommended; *Bantam New College Latin & English Dictionary* or equivalent is recommended.

Prerequisites: None

Note: Students who have already completed K¹² Middle School Latin 2 should enroll in Latin II rather than in Latin I.

WLG230: LATIN II

Students continue with their study of Latin through ancient, time-honored, classical language approaches which include repetition, parsing, written composition, and listening exercises. These techniques, combined with a modern multimedia approach to learning grammar, syntax, and vocabulary, prepare students for a deeper study of Latin. Each unit consists of a new vocabulary theme and grammar concept, reading comprehension activities, writing activities, multimedia culture, history, and mythology presentations, and interactive activities and practices which reinforce vocabulary and grammar. The emphasis is on reading Latin through engaging with myths from the ancient world which are presented in Latin. The curriculum concurs with the Cambridge school of Latin; therefore, students will learn ancient high classical styles of pronunciation and grammar in lieu of generally less sophisticated medieval styles, making it possible for students to comprehend the most Latin from the widest range of time periods. Students should expect to be actively engaged in their own language learning, understand and use common vocabulary terms and phrases, comprehend a wide range of grammar patterns, understand and analyze the cultural and historical contexts of the ancient sources they study, and take frequent assessments where their language

progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; *Bantam New College Latin & English Dictionary* or equivalent is recommended.

Prerequisites: WLG130: Latin I (or equivalent)

WLG140: CHINESE I

Students begin their introduction to Chinese by focusing on the four key areas of world language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Both Chinese characters and pinyin are presented together throughout the course and specific character practices are introduced after the first quarter. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations and respond appropriately to basic conversational prompts, analyze and compare cultural practices, products, and perspectives of various Chinese-speaking regions, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; a headset combination is recommended; *Oxford Beginner's Chinese Dictionary* or equivalent is recommended.

Prerequisites: None

Note: Students who have already completed K¹² Middle School Chinese 2 should enroll in Chinese II rather than in Chinese I.

WLG240: CHINESE II

Students continue their study of Chinese by further expanding their knowledge of key vocabulary topics and grammar concepts. Students not only begin to comprehend listening and reading passages more fully, but they also start to express themselves more meaningfully in both speaking

and writing. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Character recognition and practice are a key focus of the course and students are expected to learn several characters each unit. However, pinyin is still presented with characters throughout the course to aid in listening and reading comprehension. Students should expect to be actively engaged in their own language learning, understand common vocabulary terms and phrases, use a wide range of grammar patterns in their speaking and writing, participate in conversations and respond appropriately to conversational prompts, analyze and compare cultural practices, products, and perspectives of various Chinese-speaking regions, and take frequent assessments where their language progression can be monitored. The course has been carefully aligned to national standards as set forth by ACTFL (the American Council on the Teaching of Foreign Languages).

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; *Oxford Beginner's Chinese Dictionary* or equivalent is recommended.

Prerequisites: WLG140: Chinese I, K¹² Middle School Chinese 1 and 2 (or equivalents)

WLG150: JAPANESE I

Students become familiar with the fundamental concepts and constructions of the Japanese language as well as the rich and ancient world of Japanese culture in this two-semester course. Japanese I has been designed to meet the standards of the American Council on the Teaching of Foreign Languages (ACTFL). Unit topics consist of the alphabet and numbers; greetings; introductions; the calendar (days, months, and seasons); weather; time; colors; familiar objects and places; family; food; pastimes; and school objects and routine. Course strategies include warm-up activities, vocabulary study, reading, threaded discussions, multimedia presentations, self-checks, practice activities and games, oral and written assignments, projects, quizzes, and exams.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; *Oxford's Japanese Dictionary* or equivalent is recommended.

Prerequisites: None

WLG250: JAPANESE II

In Japanese II, course content blends different forms of communication and culture via unit activities to ensure that students meet all standards of the American Council on the Teaching of Foreign Languages (ACTFL). These standards call for a focus on successful oral and written communication as well as a thorough grounding in Japanese culture. Unit themes for both semesters cover a broad range of useful everyday subjects, including daily routine, animals, entertainment, body parts, rooms and furniture, shopping and clothing, meals, sports and recreation, and transportation. Students must successfully complete Japanese I in order to enroll in this course.

Course Length: Two semesters. Semesters A and B should be taken consecutively and not simultaneously. A passing grade in Semester A is required to enroll in the B semester.

Materials: A speaker and microphone are necessary; A headset combination is recommended; *Oxfords Japanese Dictionary* or equivalent is recommended

Prerequisites: WLG150: Japanese I (or equivalent)

BUSINESS MANAGEMENT ELECTIVES

BUS040: INTRODUCTION TO ENTREPRENEURSHIP I

In this introductory business course, students learn the basics of planning and launching their own successful business. Whether they want to start their own money-making business or create a non-profit to help others, this course helps students develop the core skills they need to be successful. They learn how to come up with new business ideas, attract investors, market their business, and manage expenses. Students hear inspirational stories of teen entrepreneurs who have turned their ideas into reality, and then they plan and execute their own business.

Course Length: One semester

Prerequisites: None

BUS050: INTRODUCTION TO ENTREPRENEURSHIP II

Students build on the business concepts they learned in Introduction to Entrepreneurship I. They learn about sales methods, financing and credit, accounting, pricing, and government regulations. They refine their technology and communication skills in speaking, writing, networking, negotiating, and listening. They enhance their employability skills by preparing job-related documents, developing

interviewing skills, and learning about hiring, firing, and managing employees. Students develop a complete business plan and a presentation for potential investors.

Course Length: One semester

Materials: None

Prerequisites: BUS040: Introduction to Entrepreneurship I (or equivalent)

BUS060: INTRODUCTION TO MARKETING I

Students find out what it takes to market a product or service in today's fast-paced business environment. They learn the fundamentals of marketing using real-world business examples. They learn about buyer behavior, marketing research principles, demand analysis, distribution, financing, pricing, and product management.

Course Length: One semester

Materials: None

Prerequisites: None

BUS070: INTRODUCTION TO MARKETING II

Students build on the skills and concepts learned in Introduction to Marketing I to develop a basic understanding of marketing principles and techniques. By the end of the course, they will have developed their own comprehensive marketing plan for a new business.

Course Length: One semester

Materials: None

Prerequisites: BUS060: Introduction to Marketing I (or equivalent)

BUS080: INTERNATIONAL BUSINESS

From geography to culture Global Business is an exciting topic in the business community today. This course is designed to help students develop the appreciation, knowledge, skills, and abilities needed to live and work in a global marketplace. It takes a global view on business, investigating why and how companies go international and are more interconnected. The course further provides students a conceptual tool by which to understand how economic, social, cultural, political and legal factors influence both domestic and cross-border business. Business structures, global entrepreneurship, business management, marketing, and the challenges of managing international organizations will all be explored in this course. Students will cultivate a mindfulness of how history, geography, language, cultural studies, research skills, and continuing education are important in both business activities and the 21st century.

Course Length: One semester

Materials: None

Prerequisites: None

BUS090: SPORTS AND ENTERTAINMENT MARKETING

Have you ever wished to play sports professionally? Have you dreamed of one day becoming an agent for a celebrity entertainer? If you answered yes to either question, then believe it or not, you've been fantasizing about entering the exciting world of sports and entertainment marketing. Although this particular form of marketing bears some resemblance to traditional marketing, there are many differences as well—including a lot more glitz and glamour! In this course, you'll have the opportunity to explore basic marketing principles and delve deeper into the multi-billion dollar sports and entertainment marketing industry. You'll learn about how professional athletes, sports teams, and well known entertainers are marketed as commodities and how some of them become billionaires as a result. If you've ever wondered about how things work behind the scenes of a major sporting event such as the Super Bowl or even entertained the idea of playing a role in such an event, then this course will introduce you to the fundamentals of such a career.

Course Length: One semester

Materials: None

Prerequisites: None

MTH322: CONSUMER MATH

In Consumer Math, students study and review arithmetic skills they can apply in their personal lives and in their future careers. The first semester of the course begins with a focus on occupational topics; it includes details on jobs, wages, deductions, taxes, insurance, recreation and spending, and transportation. In the second semester of Consumer Math, students learn about personal finances, checking and savings accounts, loans and buying on credit, automobile expenses, and housing expenses. Narrated slide shows help illustrate some of the more difficult content. Throughout the course, students participate in online discussions with each other and their teacher.

Course Length: Two semesters

Prerequisites: None

BUS030: PERSONAL FINANCE

In this introductory finance course, students learn basic principles of economics and best practices for managing their own finances. Students learn core skills in creating budgets, developing long-term financial plans to meet their goals, and making responsible choices about income and expenses. They gain a deeper understanding of capitalism

and other systems so they can better understand their role in the economy of society. Students are inspired by experiences of finance professionals and stories of everyday people and the choices they make to manage their money.

Course Length: One semester

Prerequisites: None

MTH342: ACCOUNTING

Through this course, students gain a foundation in the skills needed for college accounting courses, office work, and managing their own small businesses. This introduction to accounting gives students who have never had prior accounting training an overview of the three forms of accounting: financial, cost, and management accounting. The course helps build an appreciation for the role of accounting in managing a profitable business. Instructional material covers the basic concepts, conventions, and rules of the double entry system and includes techniques for analyzing ratios from a balance sheet. The concept of ethics, integrity, confidentiality, and rigor are woven through all the units.

Course Length: Two semesters

Prerequisites: MTH122: Algebra I (or equivalent)

TECHNOLOGY AND COMPUTER SCIENCE ELECTIVES

TCH010: COMPUTER LITERACY

Students must be able to effectively use technology to research, organize, create, and evaluate information. In this introductory course, students become familiar with the basic principles of a personal computer, including the internal hardware, operating system, and software applications. Students gain practice in using key applications such as word processing, spreadsheet, and presentation software, as well as understand social and ethical issues around the Internet, information, and security. In the first part of the course, the focus is on the fundamentals: learning and using the applications, and understanding the basic roles and responsibilities of the software, hardware, and operating system. In the second part, the focus is on gathering and analyzing data, and using the right tools and methods to collect and present data.

Course Length: One semester

Software: OpenOffice.org version 3.2; Mozilla Firefox; Adobe Reader; Adobe Flash Player; 7-Zip compression program (all available by free download within the course)

System Requirements: Microsoft Windows XP, Windows Vista, Windows 7 or Mac OS X 10.4 or higher operating system; for Windows, 256 MB of memory (RAM), 650 MB available hard drive space, and a 1024 x 768 or higher monitor resolution; for Mac OS X, an Intel processor, 512 MB of memory (RAM), 400 MB available disk space, and a 1024 x 768 or higher monitor resolution

Prerequisites: None

TCH017: 3D ART I - MODELING

This course introduces students to 3D modeling tools and concepts. Using Blender, the popular open-source 3D modeling package, students learn the basics of creating shapes, adding textures and lighting, and rendering. By the end of the course, students produce a series of increasingly sophisticated projects for their 3D portfolio. This course is suitable for students with no prior experience in 3D game design or digital media authoring tools.

Course Length: One semester

Materials: 3-button mouse or trackpad is required

Prerequisites: None

TCH018: 3D ART II - ANIMATION

In this advanced course, students build on the skills they developed in 3D Art I to learn 3D animation techniques. Using Blender, a powerful open-source modeling tool, students master the basics of animation—rigging, bones, and movement—while learning how to apply traditional animation techniques to their 3D models.

Course Length: One semester

Materials: 3-button mouse or trackpad is required

Prerequisites: TCH017: 3D Art I-Modeling

TCH026: AUDIO ENGINEERING

In this introductory course, students learn about the physics of sound and the history of recording technologies. They learn about the four stages of professional music recording projects: recording, editing, mixing, and mastering. Using Audacity, an open-source recording and mixing program, they practice the techniques used by sound engineers to produce multi-track recordings. Through a series of engaging hands-on projects, they learn the fundamental concepts of audio engineering.

Course Length: One semester

Software: Audacity version 1.3.11; Adobe Reader; Adobe Flash Player; 7-Zip compression program (all available by free download within the course)

System Requirements: Microsoft Windows XP, Windows Vista, Windows 7, or Mac OS X 10.4 or higher operating system; for Windows XP and Vista Home Basic, a 1 GHz or faster processor; for Windows Vista Home Premium/Business/Ultimate and Windows 7, a 2 GHz or faster processor; for Mac OS X, a 300 MHz or faster processor; for XP, 512 MB of memory (RAM); for Vista Home Basic, 2 GB; for Vista Home Premium/Business/ Ultimate and for Windows 7, 4 GB; for Mac OS X, 64 MB; at least 4 GB of available hard drive space

Prerequisites: None

TCH028: DIGITAL ARTS I

In this exploratory course, students learn the elements and principles of design, as well as foundational concepts of visual communication. While surveying a variety of media and art, students use image editing, animation, and digital drawing to put into practice the art principles they've learned. They explore career opportunities in the design, production, display, and presentation of digital artwork. They respond to the artwork of others, and learn how to combine artistic elements to create finished pieces that effectively communicate their ideas.

Course Length: One semester

Software: Inkscape version 0.47-3; Adobe Reader; Adobe Flash Player; 7-Zip compression program (all available by free download within the course).

System Requirements: Microsoft Windows XP, Windows Vista, or Mac OS X 10.3 or higher operating system, 1 GHz or faster processor; at least 512 MB of memory (RAM); at least 1 GB of available hard drive space

Prerequisites: None

TCH029: DIGITAL ARTS II

Students build on the skills and concepts they learned in Digital Arts I as they develop their vocabulary of digital design elements. By the end of the course, they will have created a collection of digital art projects for their digital design portfolio.

Course Length: One semester

Software: Inkscape version 0.47-3; Adobe Reader; Adobe Flash Player; 7-Zip compression program (all available by free download within the course)

System Requirements: Microsoft Windows XP, Windows Vista, or Mac OS X 10.3 or higher operating system, 1 GHz or faster processor; at least 512 MB of memory (RAM); at least 1 GB of available hard drive space

Prerequisites: TCH028: Digital Arts I (or equivalent)

TCH030: IMAGE DESIGN AND EDITING

This introductory design course is for students who want to create compelling, professional-looking graphic designs and photos. Students learn the basics of composition, color, and layout through the use of hands-on projects that allow them to use their creativity while developing important foundational skills. They use GIMP software to create a graphic design portfolio with a wide variety of projects involving the mastery of technical topics, such as working with layers and masks, adding special effects, and effectively using typefaces to create visual impact. The projects help students develop the skills they need to create and edit images of their own.

Course Length: One Semester

Materials: GIMP software (free download); Windows or Mac Operating System

Prerequisites: None

TCH031: DIGITAL PHOTOGRAPHY I

Have you ever wondered how photographers take such great pictures? Have you tried to take photographs and wondered why they didn't seem to capture that moment that you saw with your eyes? The Digital Photography I course focuses on the basics of photography, including building an understanding of aperture, shutter speed, lighting, and composition. Students will be introduced to the history of photography and basic camera functions. Students will use the basic techniques of composition and camera functions to build a portfolio of images, capturing people, landscapes, close-up, and action photographs.

Course Length: One semester

Materials: Requires a digital camera capable of adjusting aperture and shutter speed. All DSLR and many point and shoot cameras should work, but most cell phone cameras will not.

Prerequisites: None

**This course varies from K¹²'s TCH101: Digital Photography course.*

TCH032: DIGITAL PHOTOGRAPHY II

In today's world, photographs are all around us, including in advertisements, on websites, and hung on our walls as art. Many of the images that we see have been created by professional photographers. In this course, we will examine various aspects of professional photography, including the ethics of the profession, and examine some of the areas that professional photographers may choose to specialize in, such as wedding photography and product photography. We will also learn more about some of the most respected professional photographers in history and we will learn how to critique photographs in order to better understand what creates an eye catching photograph.

Course Length: One semester

Materials: A digital camera is required.

Prerequisites: TCH031: Digital Photography I

TCH036: COMPUTER SCIENCE

This course introduces students to computer science concepts such as computer architecture, networks, and the Internet. Students use object-oriented programming, event-driven processes, modular computer programming, and data manipulation algorithms to produce finished software programs. They use the design process to create many programs by determining specifications, designing the software, and testing and improving the product until it meets the specifications. By the end of this course, students will have a solid foundation for further study in this subject.

Course Length: One semester

Software: Python 3.2; Adobe Reader; Adobe Flash Player; 7-Zip compression program (all available by free download within the course)

System Requirements: Microsoft Windows operating system Windows XP, Windows Vista, or Windows 7 recommended; at least 100 MB of available hard drive space

Prerequisites: MTH122: Algebra I (or equivalent)

TCH038: ENGINEERING DESIGN/CAD

Computer-aided design systems are used by designers and manufacturers in virtually every industry to create engineering design solutions. In this course, students are introduced to engineering, learning the basics of CAD software: creating points, lines, other geometric forms, isometric drawings, and 3D models. They learn how to translate initial concepts into functional designs and 3D walkthroughs and explore career options in this hands-on introductory-level course.

Course Length: One semester

Software: CAD Standard Lite 370; Google SketchUp 7.1; Adobe Reader; Adobe Flash Player; 7-Zip compression program (all available by free download within the course)

System Requirements: Microsoft Windows XP or Windows Vista operating system; 600 MHz or faster processor (1 GHz for Vista); 5¹² MB of memory (RAM) (1 GB for Vista); at least 2 GB of available hard drive space; 3D class video card with 128 MB of memory or higher (256 MB for Vista)—the video card driver must support OpenGL version 1.5 or higher

Prerequisites: None

TCH040: WEB DESIGN

This course provides a comprehensive introduction to the essentials of web design, from planning page layouts to publishing a complete site to the web. Students learn how to

use HTML to design their own web pages. The course covers basic HTML tags for formatting text, as well as more advanced tags. Through real-world design scenarios and hands-on projects, students create compelling, usable websites using the latest suite of free tools.

Course Length: One Semester

Prerequisites: None

TCH060: C++ PROGRAMMING

In this introductory course, students learn basic programming concepts through a series of hands-on projects. They also learn about software development careers, the software development process, and industry best practices. Using Microsoft Visual Studio 2013, students master the building blocks of programming: functions, variables, loops, arrays, and classes.

Course Length: One semester

Software: Microsoft Visual Studio 2013; Adobe Reader; Adobe Flash Player; 7-Zip compression program (all available by free download within the course)

System Requirements: Windows 7 SP1 (x86 and x64), Windows 8 (x86 and x64), Windows 8.1 (x86 and x64), Windows Server 2008 R2 SP1 (x64), Windows Server 2012 (x64), Windows Server 2012 R2 (x64)

Hardware requirements: 1.6 GHz or faster processor, 1 GB of RAM (1.5 GB if running on a virtual machine), 5 GB of available hard disk space, 5400 RPM hard drive, DirectX 9-capable video card running at 1024 x 768 or higher display resolution

TCH061: PROGRAMMING I—VB.NET

Students learn basic programming and the essential concepts of VisualBasic.net (VB. NET) in this one-semester course. As an introduction to VB.NET, students are taught the basic uses of the programming language, its similarities to the English language and others, its architecture, program flow, and its flexibility as a programming language. The course helps participants understand the processes involved in software development and object-oriented programming. This is an introductory course that could lead to careers such as software engineer, developer, or game designer. Prior coursework in computer fundamentals is a prerequisite. Visual Studio 2008 Express Edition is required software for this course.

Course Length: One semester

Software: Visual Basic 2008 Express Edition (available by free download within the course)

System Requirements: Ram: 512 MB, Processor: Pentium 600 MHz, Hard Disc: 2 GB, Operating System: Windows XP, Windows 2000, or Windows NT

Prerequisites: TCH036: Computer Science I or TCH060: C++ Programming

TCH062: PROGRAMMING II—JAVA

This introductory-level, one-semester course is designed for people who have very little programming experience. In Java Programming, students gain an understanding of Java platforms and learn how to build a stand-alone application, such as a countdown clock or leap year indicator. Students also learn the techniques of Java and how Java can be used in cross-platform programming. At the end of the course, students are able to write basic programs using Java and are prepared to pursue further instruction in any programming language. Prior coursework in computer fundamentals and programming are prerequisites for Java Programming. JDK 1.5 or a higher version Java application is required for this course

Course Length: One semester

Software: Java Developer Kit (available by free download within the course)

System Requirements: Ram: 512 MB, Processor: Pentium 600 MHz, Hard Disc: 2 GB, Operating System: Windows XP, Windows 2000, or Windows NT

Prerequisites: TCH061-AVT: Programming I - VB.NET

TCH070: GAME DESIGN

This course is for anyone who loves gaming and wants to design and build original games from scratch. Students learn how to use popular game-development software to create engaging, interactive games in a variety of styles. After learning about game genres, students learn about all aspects of the game-design process. From there, it's on to a series of increasingly challenging hands-on projects that teach all the elements of successful game development.

Course Length: One semester

Software: Multimedia Fusion 2.5 (Standard) - This software is not provided by K¹² and must be purchased independently.

System Requirements: Microsoft Windows XP or Windows Vista operating system; 1 GHz or faster processor; 256 MB of memory (RAM); at least 2 GB of available hard drive space

Prerequisites: MTH112: Algebra I (or equivalent)

CAREER TECHNICAL EDUCATION ELECTIVES

OTH038: CAREERS IN CRIMINAL JUSTICE

Do you want to help prevent crime and maintain order in society? The criminal justice system may be a good career option. The criminal justice system offers a wide range of career opportunities, from law enforcement to forensic scientists to lawyers and judges. In this course, students

will explore different areas of the criminal justice system, including the trial process, the juvenile justice system, and the correctional system. Careers in each area will be explored and students will learn more about the expectations and training required for various career options in the criminal justice field.

Course Length: One Semester

Prerequisites: None

OTH091: LAW AND ORDER

Every society has laws that its citizens must follow. From traffic laws to regulations on how the government operates, laws help provide society with order and structure. Our lives are guided and regulated by our society's legal expectations. Consumer laws help protect us from faulty goods; criminal laws help to protect society from individuals who harm others; and family law handles the arrangements and issues that arise in areas like divorce and child custody. This course focuses on the creation and application of laws in various areas of American society. By understanding the workings of our court system, as well as how laws are actually carried out, we become more informed and responsible citizens in our communities and of our nation.

Course Length: One semester

Materials: None

Prerequisites: None

ENG010: JOURNALISM

Students are introduced to the historical importance of journalism in America. They study the basic principles of print and online journalism as they examine the role of printed news media in our society. They learn investigative skills, responsible reporting, and journalistic writing techniques as they read, respond to, and write their own news and feature articles. Students conduct interviews, research, write, and design their own publications.

Course Length: One semester

HST010: ANTHROPOLOGY

Anthropologists research the characteristics and origins of the cultural, social, and physical development of humans and consider why some cultures change and others come to an end. In this course, students are introduced to the five main branches of anthropology: physical, cultural, linguistic, social, and archeological. Through instruction and their own investigation and analysis, students explore these topics, considering their relationship to other social sciences such as history, geography, sociology, economics, political science, and psychology. Emulating professional anthropologists, students apply their knowledge and observational skills to the real-life study of cultures in the United States and around the world. The content in this course meets or exceeds the standards of the National Council for the Social Studies (NCSS).

Course Length: One semester

Materials: None

Prerequisites: HST103: World History (or equivalent) recommended as a prerequisite or co-requisite, but not required

HST020: PSYCHOLOGY

In this course, students investigate why human beings think and act the way they do. This is an introductory course that broadly covers several areas of psychology. Instructional material presents theories and current research for students to critically evaluate and understand. Each unit introduces terminology, theories, and research that are critical to the understanding of psychology and includes tutorials and interactive exercises. Students learn how to define and use key terms of psychology and how to apply psychological principles to their own lives. Unit topics in this one semester course include methods of study, biological basis for behavior, learning and memory, development and individual differences, and psychological disorders.

Course Length: One semester

Prerequisites: None

OTH031: ARCHAEOLOGY

George Santayana once said, "Those who cannot remember the past are condemned to repeat it." The field of archaeology helps us better understand the events and societies of the past that have helped shape our modern world. This course focuses on the techniques, methods, and theories that guide the study of the past. Students learn how archaeological research is conducted and interpreted, as well as how artifacts are located and preserved. Finally, students learn about the relationship of material items to culture and what we can learn about past societies from these items.

Course Length: One Semester

Prerequisites: None

OTH032: ASTRONOMY

Why do stars twinkle? Is it possible to fall into a black hole? Will the sun ever stop shining? Since the first glimpse of the night sky, humans have been fascinated with the stars, planets, and universe. This course introduces students to the study of astronomy, including its history and development, basic scientific laws of motion and gravity, the concepts of modern astronomy, and the methods used by astronomers to learn more about the universe. Additional topics include the solar system, the Milky Way and other galaxies, and the sun and stars. Using online tools, students examine the life cycle of stars, the properties of planets, and the exploration of space.

Course Length: One Semester

Prerequisites: None

OTH033: VETERINARY SCIENCE

As animals play an increasingly important role in our lives, scientists have sought to learn more about their health and well-being. Taking a look at the pets that live in our homes, on our farms, and in zoos and wildlife sanctuaries, this course examines some of the common diseases and treatments for domestic animals. Toxins, parasites, and infectious diseases affect not only the animals around us, but at times, us humans as well! Through veterinary medicine and science, the prevention and treatment of diseases and health issues are studied and applied.

Course Length: One Semester

Prerequisites: None

OTH034: INTRODUCTION TO AGRISCIENCE

In this course, students learn about the development and maintenance of agriculture, animal systems, natural resources, and other food sources. Students also examine the relationship between agriculture and natural resources and the environment, health, politics, and world trade.

Course Length: One semester

Prerequisites: None

OTH093: INTRODUCTION TO CULINARY ARTS

Food is fundamental to life. Not only does it feed our bodies, but it's often the centerpiece for family gatherings and social functions. In this course, students learn all about food, including food culture, food history, food safety, and current food trends. They also learn about the food service industry and prepare some culinary dishes. Through hands-on activities and in-depth study of the culinary arts field, this course helps students hone their cooking skills and gives them the opportunity to explore careers in the food industry.

Course Length: One semester

Materials: Household items required (but not supplied): stand mixer; meat thermometer; assorted ingredients for recipes

Prerequisites: None

CAR030: MEDICAL TERMINOLOGY

This course is an introduction to medical terminology and covers word roots, suffixes, and prefixes as it relates to various medical specialties, structures of the body, medical procedures and diseases. Students also receive practical experience in procedures performed in medical specialty facilities.

Course Length: One semester

Materials: *Mosby's Dictionary of Medicine, Nursing & Health Professions, 9th Edition* by Mosby; *The Language of Medicine, 10th Edition*

Prerequisites: None

CAR040: ANATOMY AND PHYSIOLOGY

This course provides a comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cytology, histology, and the integumentary, skeletal, muscular, and nervous system. Upon completion, students should be able to demonstrate an in-depth understanding of principles of anatomy and physiology and their interrelationships on cellular, histological and organ system level. There will be in-depth investigation of major organ systems of the body including the immune, respiratory and digestive systems. In addition, emphasis will be placed on the regulatory mechanisms of the body as well as basic development biology and aging.

Course Length: Two semesters

Materials: *Structure & Function of the Body, 14th Edition*

Prerequisites: None

ART ELECTIVES

(these courses fulfill the Elective Credit Requirement)

ART010: FINE ART

This course combines art history, appreciation, and analysis, while engaging students in hands-on creative projects. Lessons introduce major periods and movements in art history while focusing on masterworks and the intellectual, technical, and creative processes behind those works. Studio lessons provide opportunities for drawing, painting, sculpting, and other creative endeavors.

Course Length: Two semesters

Materials: One package of white clay; one set of acrylic paint; one set of round paintbrushes. Students should have some means of capturing an image of their projects with a digital camera, webcam, or other imaging device.

Prerequisites: None

ART020: MUSIC APPRECIATION

This course introduces students to the history, theory, and genres of music. The first semester covers basic music theory concepts as well as early musical forms, classical music, patriotic and nationalistic music, and 20th century music. The second semester presents modern traditions

including American jazz, gospel, folk, soul, blues, Latin rhythms, rock and roll, and hip hop. The course explores the history of music, from the surviving examples of rudimentary musical forms through to contemporary pieces from around the world. The first semester covers early musical forms, classical music, and American jazz. The second semester presents modern traditions, including gospel, folk, soul, blues, Latin rhythms, rock and roll, and hip hop. The course explores the relationship between music and social movements and reveals how the emergent global society and the prominence of the Internet are making musical forms more accessible worldwide. To comply with certain state standards for the arts, a student “performance practicum” is required for full credit each semester. The performance practicum requirement can be met through participation in supervised instrumental or vocal lessons, church or community choirs, community musical performances, or any other structured program that meets at regular intervals and provides opportunities for students to build vocal and/or instrumental skills. Parents or guardians will be required to present their proposed practicum to the students’ teachers for approval, and validate their children’s regular participation in the chosen performance practicum.

Course Length: Two semesters

Materials: Finale Notepad music notation software (available within the course)

Prerequisites: None

ENG030: CREATIVE WRITING

Students create original essays, poems, and short stories in this course, which uses two textbooks and focuses on the four-step process writing model. They read professionally written forms of creative writing as models and then integrate their impressions of these works with their personal life experiences as they compose their own writing projects. Students are encouraged to write about topics they find engaging as they practice writing on the following themes: narration, definition, process analysis, cause and effect, and comparison/contrast. After students turn in each assignment, the teacher supplies detailed suggestions for revision. This feedback helps students learn how to improve their self-expression and self-editing skills.

Course Length: Two semesters

Prerequisites: Successful completion of ENG 202: Literary Analysis and Composition II (or equivalent)

STUDENT DEVELOPMENT ELECTIVES

OTH040: REACHING YOUR ACADEMIC POTENTIAL

Students learn essential academic skills within the context of their learning style, individual learning environment, and long-term goals. This course helps students develop habits for more successful reading, writing, studying, communication, collaboration, time management, and concentration. It also provides insights into how the brain works when they are learning, and ways to maximize its potential.

Course Length: One semester

Prerequisites: None

OTH050: ACHIEVING YOUR CAREER AND COLLEGE GOALS

Students explore their options for life after high school and implement plans to achieve their goals. They identify their aptitudes, skills, and preferences, and explore a wide range of potential careers. They investigate the training and education required for the career of their choice, and create a plan to be sure that their work in high school is preparing them for the next step. They also receive practical experience in essential skills such as searching and applying for college, securing financial aid, writing a resume and cover letter, and interviewing for a job. This course is geared toward 11th and 12th graders.

Course Length: One semester

Prerequisites: None

PRJ010: SERVICE LEARNING

This project may be used in a variety of ways—as a stand-alone project, in conjunction with another course, or as a foundation around which to base a one-semester course. An introductory unit presents instruction on the nature of service learning. Students are taught how to identify community needs, select projects that are meaningful to themselves, apply practical skills, reflect on their learning experience, and behave responsibly in a service setting. Students then move on to design and conduct service learning experiences of their own, according to the requirements of their projects. Documents to support teachers in guiding students through the project are included.

Project Length: Varies

ENG020: PUBLIC SPEAKING

Students are introduced to public speaking as an important component of their academic, work, and social lives. They study public speaking occasions and develop skills as fair and critical listeners, or consumers, of spoken information and persuasion. Students study types of speeches (informative, persuasive, dramatic, and special occasion), read and listen to models of speeches, and prepare and present their own speeches to diverse audiences. Students learn to choose speaking topics and adapt them for specific audiences, to research and support their ideas, and to benefit from listener feedback. They study how to incorporate well-designed visual and multimedia aids in presentations and how to maintain a credible presence in the digital world. Students also learn about the ethics of public speaking and about techniques for managing communication anxiety.

Course Length: One semester

Materials: Student must provide a webcam and recording software

Prerequisites: None

OTH070: DRIVERS SAFETY

Drivers Safety can provide a foundation for a lifetime of responsible driving. Instructional material in this course emphasizes the mechanics of driving operations and the rules of safe driving. Among other topics, students learn how to assess and manage risk, handle social pressures, understand signs and signals, comprehend the rules of the road, and start, steer, stop, turn, and park a car. They also learn how to contend with driving environments including light and weather conditions, share the roadway, respond to an emergency, buy and maintain a car, plan a trip, take a state driving test, and partner with their parents or guardians to promote safety on the road. Students use a textbook for this one-semester course. This course may not satisfy the state department of transportation's or motor vehicle's requirements for learners permit issuance. Please consult local requirements prior to enrolling.

Course Length: One semester

Materials: *Responsible Driving*

Prerequisites: None

OTH080: NUTRITION AND WELLNESS

This one-semester elective course provides students with an overview of good nutrition principles that are necessary for physical and mental wellness and a long, healthy life. Instructional materials include discussions of digestion, basic nutrients, weight management, sports and fitness, and life-span nutrition. The Nutrition and Wellness course emphasizes an understanding of today's food and eating trends and gives students the capacity to intelligently evaluate all available sources of nutrition information and

make informed decisions. Unit topics include a course introduction, wellness and food choices in today's world, digestion and major nutrients, and body size and weight management.

Course Length: One semester

Materials: None

Prerequisites: OTH010: Skills for Health (or equivalent)

OTH092: HEALTH SCIENCES

Will we ever find a cure for cancer? What treatments are best for conditions like diabetes and asthma? How are illnesses like meningitis, tuberculosis, and the measles identified and diagnosed? Health sciences provide the answers to questions such as these. In this course, students will be introduced to the various disciplines within the health sciences, including toxicology, clinical medicine, and biotechnology. They will explore the importance of diagnostics and research in the identification and treatment of diseases. The course presents information and terminology for the health sciences and examines the contributions of different health science areas.

Course Length: One semester

Prerequisites: None

REMEDICATION ELECTIVES

ENG001: ENGLISH FOUNDATIONS I (REMEDICATION)

Students build and reinforce foundational reading, writing, and basic academic skills needed for success in high school. Through carefully paced, guided instruction, and graduated reading levels, students improve reading comprehension and strategies, focusing on literacy development at the critical stage between decoding and making meaning from text. Instruction and practice in writing skills help students develop their composition skills in a variety of formats. Formative assessments identify areas of weakness, lessons are prescribed to improve performance, and summative assessments track progress and skill development. If needed, students can continue their remediation of reading and writing skills with English Foundations II.

Course Length: Two semesters

Prerequisites: Teacher/school counselor recommendation

ENG011: ENGLISH FOUNDATIONS II (REMEDICATION)

Students build and reinforce foundational reading, writing, and basic academic skills needed for success in high

school. Struggling readers develop mastery in reading comprehension, vocabulary building, study skills, and media literacy. Students build confidence in writing fundamentals by focusing on composition in a variety of formats, grammar, style, and media literacy. Formative assessments identify areas of weakness, lessons are prescribed to improve performance, and summative assessments track progress and skill development.

Course Length: Two semesters

Prerequisites: Teacher/school counselor recommendation; ENG001: English Foundations I is not required

MTH001: MATH FOUNDATIONS I (REMEDIATION)

Students build and reinforce foundational math skills typically found in third through fifth grade for which they have not achieved mastery. They progress through carefully paced, guided instruction and engaging interactive practice. Formative assessments identify areas of weakness and prescribe lessons to improve performance. Summative assessments track progress and skill development. If needed, students can move on to Math Foundations II (addressing skills typically found in sixth through eighth grade) to further develop the computational skills and conceptual understanding needed to undertake high school math courses with confidence.

Course Length: Two semesters

Prerequisites: Teacher/school counselor recommendation

MTH011: MATH FOUNDATIONS II (REMEDIATION)

Students build and reinforce foundational math skills typically found in sixth through eighth grade, achieving the computational skills and conceptual understanding needed to undertake high school math courses with confidence. Carefully paced, guided instruction is accompanied by interactive practice that is engaging and accessible. Formative assessments identify areas of weakness and prescribe lessons to improve performance. Summative assessments track progress and skill development. This course is appropriate for use as remediation at the high school level or as a bridge to high school.

Course Length: Two semesters

Prerequisites: Teacher/school counselor recommendation; MTH001: Math Foundations I is not required

MTH112: PRE-ALGEBRA

In this course, students learn computational and problem-solving skills and the language of algebra. Students translate word phrases and sentences into mathematical expressions; analyze geometric figures; solve problems involving

percentages, ratios, and proportions; graph different kinds of equations and inequalities; calculate statistical measures and probabilities; apply the Pythagorean theorem; and explain strategies for solving real-world problems. The textbook provides students with a ready reference and explanations that supplement the online material. Online lessons provide demonstrations of concepts, as well as interactive problems with contextual feedback.

Course Length: Two semesters

Materials: *Pre-Algebra: Reference Guide and Problem Sets*

Prerequisites: K¹² Middle School Fundamentals of Geometry and Algebra, or MTH011-APL: Math Foundations II (or equivalents)

Note: Students who have already succeeded in K¹² Middle School Pre-Algebra should not enroll in this course.

ORIENTATION

ONLINE LEARNING

The Online Learning course explains to students how the K¹² high school program works, and provides tips on successful online learning. Students are introduced to the online tools they will use during their high school experience, including the Learning Management System that delivers course assignments. Students take part in online discussions and practice submitting computer-scored assessments and other assignments to teachers. Lifelong learning skills such as time management and study habits are also covered. By the end of the course, students will be fully prepared to begin their K¹² high school courses.

Course Length: 6-8 hours

Prerequisites: None



	CORE	COMPREHENSIVE	HONORS	AP®	CREDIT RECOVERY
ENGLISH 4 Credits					
Literary Analysis and Composition I	●	●	●		●
Literary Analysis and Composition II	●	●	●		●
American Literature	●	●	●		●
British and World Literature	●	●	●		●
AP English Language and Composition				●	
AP English Literature and Composition				●	
MATH 4 Credits					
Algebra I	●	●	●		●
Geometry	●	●	●		●
Algebra II	●	●	●		●
Practical Math	●				
Pre-Calculus*		●			
Trigonometry*		●			
Probability and Statistics*		●			
Calculus		●			
AP Calculus AB				●	
AP Calculus BC				●	
AP Statistics				●	
SCIENCE 4 Credits (must include Biology)					
Physical Science	●				●
Earth Science	●	●	●		●
Biology	●	●	●		●
Chemistry	●	●	●		●
Physics		●	●		
AP Biology				●	
AP Chemistry				●	
AP Environmental Science				●	
Environmental Science*		●			
Forensic Science*		●			
HISTORY AND SOCIAL SCIENCES 4 Credits					
World History	●	●	●		●
Modern World Studies	●	●	●		●
U.S. History	●	●	●		●
U.S. Government and Politics*	●	●			●
U.S. and Global Economics*	●	●			●
AP U.S. History				●	
AP U.S. Government and Politics*				●	
AP Macroeconomics*				●	
AP Microeconomics*				●	
AP Psychology*				●	
AP World History				●	
HEALTH AND P.E. 1 Credit (.5 credit each)					
Skills for Health*					●
Physical Education					●
WORLD LANGUAGES 2 Credits (of same language)					
Spanish I		●			●
Spanish II		●			●
Spanish III		●			●
Spanish IV		●			●
AP Spanish Language and Culture				●	
French I		●			●
French II		●			●
French III		●			●
French IV		●			●
AP French Language				●	
German I		●			●
German II		●			●
German III		●			●
German IV		●			●
Latin I		●			●
Latin II		●			●
Chinese I		●			●
Chinese II		●			●
Japanese I		●			●
Japanese II		●			●

	FALL	SPRING
BUSINESS MANAGEMENT ELECTIVES		
Introduction to Entrepreneurship I*	●	●
Introduction to Entrepreneurship II*	●	●
Introduction to Marketing I*	●	●
Introduction to Marketing II*		●
International Business*	●	
Sports and Entertainment Marketing*		●
Consumer Math (Semester 1)*	●	
Consumer Math (Semester 2)*		●
Personal Finance*	●	●
Accounting (Semester 1)*	●	
Accounting (Semester 2)*		●
TECHNOLOGY AND COMPUTER SCIENCE ELECTIVES		
Computer Literacy*	●	
3D Art I: Modeling*	●	
3D Art II: Animation*		●
Audio Engineering*	●	
Digital Arts I*	●	
Digital Arts II*		●
Image Design and Editing*	●	●
Digital Photography I*	●	
Digital Photography II*		●
Computer Science* ^{PC}	●	●
Engineering Design/CAD* ^{PC}	●	●
Web Design*	●	●
C++ Programming* ^{PC}	●	●
Programming I: VB.NET* ^{PC}	●	
Programming II: JAVA* ^{PC}		●
Game Design* ^{PC}	●	●
CAREER TECHNICAL EDUCATION ELECTIVES		
Careers in Criminal Justice*	●	
Law and Order*		●
Journalism*	●	●
Anthropology*	●	●
Psychology*	●	●
Archeology*	●	
Astronomy*		●
Veterinary Science*	●	
Introduction to Agriscience*		●
Introduction to Culinary Arts*	●	●
Medical Terminology*	●	●
Anatomy and Physiology (Semester 1)*	●	
Anatomy and Physiology (Semester 2)*		●
ART ELECTIVES		
Fine Art (Semester 1)*	●	
Fine Art (Semester 2)*		●
Music Appreciation (Semester 1)*	●	
Music Appreciation (Semester 2)*		●
Creative Writing*	●	●
STUDENT DEVELOPMENT ELECTIVES		
Reaching Your Academic Potential*	●	●
Achieving Your Career and College Goals*	●	●
Service Learning*	●	●
Public Speaking*	●	●
Drivers Safety*	●	●
Nutrition and Wellness*	●	●
Health Sciences*	●	●
REMEDIATION ELECTIVES		
English Foundations I	●	●
English Foundations II	●	●
Math Foundations I	●	●
Math Foundations II	●	●

^{PC} = for PC only (not Mac) * = one-semester course (.5 credits)

number of credits from each subject area needed to graduate

- All courses, unless otherwise noted, are two semesters and one credit.
- Course materials will be available in various formats, which may include physical and/or digital materials.
- Please note that course availability varies based on time of year.

K-8: K¹² offers online courses for grades K-8 across seven disciplines: language arts/English, math, science, history, world languages, art, and music—plus new adaptive courses in reading remediation and K-5 math. For a complete listing with full descriptions, visit K12.com/k&curriculum. Course offerings are subject to change. For the current list of courses with descriptions, please visit icademy.com/academics/curriculum.



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K¹² is not able to accept enrollments from students located in the following countries: United Arab Emirates, Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, Lebanon

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