

# 2023 - 2024 COURSE CATALOG KG - 12



# **TABLE OF CONTENTS**

# **LOWER SCHOOL K-5**

LANGUAGE ARTS	3
MATH	4
SCIENCE	6
SOCIAL STUDIES	8
ELECTIVES	9
SUMMARY COURSE LIST	13

# **MIDDLE SCHOOL 6-8**

LANGUAGE ARTS	14
MATH	15
SCIENCE	16
SOCIAL STUDIES	16
ELECTIVES - WORLD LANGUAGES	17
ELECTIVES	18
SUMMARY COURSE LIST	21

# **HIGH SCHOOL 9-12**

ENGLISH	22
MATH	24
SCIENCE	26
HISTORY	29
WORLD LANGUAGES	31
AP SUBJECTS	33
ELECTIVES	36
CAREER ELECTIVES	38
HEALTH AND P.E	40
SUMMARY COURSE LIST	<b>42</b>

# **APPENDIX**

**AP MATERIALS AND READING LIST** 



# **LOWER SCHOOL**

# LANGUAGE ARTS

# KINDERGARTEN LANGUAGE ARTS - A & B

Kindergarten English Language Arts lays the groundwork for reading and writing. The program aims to combine excellent decoding instruction with frequent reading-aloud in order to ensure that students can translate letters into words and make sense of the words they are decoding.

The course includes daily lessons that help students build the background knowledge and vocabulary critical to listening and reading comprehension. Students learn by listening to nursery rhymes, fables, classic tales, and nonfiction texts.

While teaching skills in reading, writing, listening, and speaking, the program also builds students' knowledge and vocabulary in literature, history, geography, and science.

# **Course Requirements**

Grade Level - Kindergarten Duration - 2 Semesters Materials - None

# **1ST GRADE LANGUAGE ARTS - A & B**

First Grade Language Arts continues to build the foundation for reading and writing. The course includes daily lessons that help students build the background knowledge and vocabulary critical to listening and reading comprehension. Students learn by listening to nursery rhymes, fables, classic tales, and nonfiction texts. Grammar lessons address parts of speech, including nouns (common and proper), past-tense verb forms, and adjectives. Students progress to work with nouns and verbs in phrases and to use adjectives for descriptive writing. Students begin formal instruction in the writing process with a focus on narrative writing.

# **Course Requirements**

Grade Level - Kindergarten - 1st Grade Duration - 2 Semesters Materials - None

# 2ND GRADE LANGUAGE ARTS - A & B

Students are introduced to classic fairy tales. They identify characteristic elements of fairy tales and consider problems faced by the characters as well as lessons each story conveys. Students hone their comprehension skills with interactive videos about India and China, as well as ancient Greece. Grammar instruction focuses on capitalization, quotation marks, ending punctuation, and common and proper nouns.

# **Course Requirements**

Grade Level - 2nd Grade Duration - 2 Semesters Materials – None

# **3RD GRADE LANGUAGE ARTS - A & B**

In Third Grade Language Arts, students are introduced to various stories. Listening to stories and participating in associated activities reinforces students' understanding of story elements and exposes them to rich vocabulary, language, and syntax. During writing instruction, students learn how to compare and contrast various topics, write a paragraph with a topic and concluding sentence, conduct opinion writing, and write personal narratives. Students continue to learn and refine skills in spelling, dictionary use, grammar, and morphology.

# **Course Requirements**

Grade Level - 3rd Grade Duration - 2 Semesters Materials - None

# 4TH GRADE LANGUAGE ARTS - A & B

Students begin the year identifying, describing, and using elements of a memoir, both in reading and writing. Students will begin to explore the issues of individual identity, and connections to family and the wider community. Students review the writing process and engage in an extended writing project, exploring their own sense of identity and personal values. Students read selected poems as they learn about literary techniques used in that poetry, such as figurative language, rhyme schemes, metaphor, and repetition. Students learn and use specific vocabulary associated with poetry, including stanza, line, free verse, and narrative poem. In this course, students learn to distinguish poetry from prose and write their own poetry. Students also develop reading and writing skills through engagement with informational texts. Lessons include explicit instruction in grammar, morphology, and spelling.

# **Course Requirements**

Grade Level - 4th Grade Duration - 2 Semesters Materials - None

# **5TH GRADE LANGUAGE ARTS - A & B**

Students study contemporary and classic fiction as well as informational texts. Students develop reading, writing, listening, and thinking skills through engagement with informational texts and explore the complex civilizations developed by the Maya, Aztec, and Inca prior to the arrival of Europeans. Students learn about the geography, innovations, and discoveries made in these civilizations. Finally, students explore the reading genre, myths. Throughout the course, students use the writing process to complete extended writing projects. Lessons also include explicit instruction in grammar, morphology, and spelling.

# **Course Requirements**

Grade Level - 5th Grade Duration - 2 Semesters Materials - None

# MATH

# KINDERGARTEN MATH - A & B Semester A

During the first semester students will learn foundational math facts. They will learn to count to 12, how to compare sizes, ordinal numbers, what a number line is and its uses, basic measurements such as inches and feet, and how to tell time on digital and analog clocks. Students will have many opportunities to practice these new concepts by interacting with online confirmation exercises and filling out work- sheets offline. A special emphasis this semester is for students to have fun with numbers, finding success with concepts such as bigger and smaller and being comfortable in an online environment.

# Semester B

Students learn to count to twenty. They work with comparing objects using the terms tall, longer, and shorter as well as comparing two objects using the terms lighter and heavier. They will continue their exploration of basic geometric shapes such as cones and spheres. They will work with the concept of first, middle, and last. Arranging and sorting receive special emphasis this semester. Students will also work on writing numbers with 3, 4, and 5 given special attention. Students will learn the concepts of left and right. Coins are also a focus as students will count pennies, nickels and dimes. Finally, the number 7 is studied using the colors of the rainbow.

# **Course Requirements**

Grade Level - Kindergarten Duration - 2 Semesters Materials - None

# 1ST GRADE MATH - A & B Semester A

During the first semester students will build fluency with basic math facts. They will learn to count to 100, basivvc addition and subtraction facts, and how to add double-digit numbers. Students will be introduced to such new concepts as word problems, Venn diagrams, and basic geometric concepts. There is an emphasis on learning practical skills such as reading thermometers, looking at maps, and understanding the value of coins. Students will have multiple opportunities to practice new skills and knowledge through using integrated online practice problems.

# Semester B

During the second semester students will begin counting by twos, fives, and tens. They will learn both vertical addition and subtraction. Students are introduced to multiplication and division and the signs used in those operations. They will also study even and odd numbers. Students continue their exploration of geometric shapes through drawing and apply what they learn about shapes by sorting various figures in Venn diagrams. They will also use a balance beam to understand the concept of weight - lighter versus heavier. As in semester A, students will have multiple opportunities to practice new skills and knowledge through using integrated online practice problems.

# Course Requirements

Grade Level - Kindergarten - 1st Grade Duration - 2 Semesters Materials - None

# 2ND GRADE MATH - A & B Semester A

During the first semester students will build fluency with basic math facts and add and subtract within 100 to solve word problems using strategic methods. Students will also manipulate numbers to 1000 using knowledge of hundreds, tens, and ones. Lastly, students will demonstrate arrays with repeated addition.

# Semester B

During the second semester students will use place value to add and subtract up to 1000. They will use place value to estimate and solve word problems to demonstrate skills. Students will measure and compare length and represent it on a number line. They will work with money and time to compare value. Students will collect data and represented on graphs to discuss it. They will recognize common 2 dimensional and 3 dimensional shapes by specific characteristics.

# **Course Requirements**

Grade Level - 2nd Grade Duration - 2 Semesters Materials - None

# 3RD GRADE MATH – A & B Semester A

During the first semester, students will build flexibility with numbers as they master addition and subtraction facts as well as multiplication and division facts. Students will understand relationships between addition and subtraction, multiplication and addition, and multiplication and division as they learn to borrow, carry, and regroup in order to find sums and differences of two whole numbers up to 10,000. Students will also comprehend the place value of base ten numbers up to 1,000,000 in order to find patterns and make estimations. They will implement a 4-step approach to solving problems and express numbers differently including translating them into Roman Numerals or expressing them as ordinal numbers.

# Semester B

During the second semester, students will explore concepts of measurement including linear measurement, weight, volume, temperature, and time. They will also recognize, compare, and convert fractions. Students will write amounts of money and make change using as few coins as possible. Lastly, students will examine lines, polygons, and solid figures as they are introduced to basic concepts of geometry.

# **Course Requirements**

Grade Level - 3rd Grade Duration - 2 Semesters Materials - None

# 4TH GRADE MATH – A & B Semester A

4th Grade Math uses a varied amount of instructional material to reinforce and teach new math skills to the 4th grade learners. Instruction includes creative videos, mathematical storytelling, practical math applications and repetition to reinforce skills throughout the course. There are three areas of focus and students will finish the course with a strong knowledge in these content areas. The first is developing an understanding and fluency with multi-digit multiplication and developing the understanding of dividing to find quotients involving multi-digit dividends. The second is developing an understanding of fraction equivalence, addition, and subtraction of fractions with like denominators, and multiplication of fractions with whole numbers. The third will be addressed in semester B.

# Semester B

Semester B of 4th Grade Math has learners continuing to work with fractions. They will learn to multiply fractions and convert them to decimals. Students will also begin to learn to equivalent measurements of length, weight, mass, and capacity. They will also learn helpful skills in understanding time, distance, and money. Students will develop an understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry. Lessons on rectangles, line plots, angles, figure drawing, polygons, and symmetry will be taught. Semester B continues to use varied forms of instruction that allow students to learn these skills in a practical manner.

# **Course Requirements**

Grade Level - 4th Grade Duration - 2 Semesters Materials - None

# 5TH GRADE MATH – A & B Semester A

Students will learn math topics outlined in this course drawing from a variety of sources, including hands-on activities, interactive lessons, and practical math applications. Students will focus on several critical areas including but not limited to developing fluency with addition, subtraction, multiplication, and division of fractions. They will also learn to extend division to 2-digit divisors, integrate decimal fractions into the place value system, and increase an understanding of operations with decimals to hundredths. They will develop a fluency with whole numbers and decimal operations. The semester begins with operations and expressions, moves into decimals and money, and ends with more work on fractions. Learners will gain valuable skills as they carry out activities that model real life situations like grocery shopping throughout the semester.

# Semester B

Begins with students continuing to work with fractions. The first lesson focuses on ratios and challenges students to solve word problems using fractions and ratios in practical life situations. Learners continue to strengthen their math skills by studying mixed and fraction products, and fraction application, models, and division. Students will develop concepts in measurement of length, weight, and volume. They will find perimeter by adding fractions and mixed numbers using real-life examples. Learners will end the course with a focus on geometry. Varied types of instruction are used to enhance their learning, including video and real-life applications, activities, and creative projects.

# **Course Requirements**

Grade Level - 5th Grade Duration - 2 Semesters Materials - None

# **SCIENCE**

# KINDERGARTEN SCIENCE - A & B

Students will explore these concepts with both visible and invisible pushes and pulls, and contact and non-contact forces. They will recognize that motion is affected by the strength and direction of pushes and pulls, the characteristics of objects, and the surface on which objects are moved. Students will learn how motion changes and develop an understanding that pushes and pulls of different types are the cause of all changes in movement.

Students learn that all animals need food to live and grow and that they obtain their food from plants or other animals. Students also learn that plants need air, water, mineral nutrients, and light to live and grow. Students learn that all living things need resources from their environment and that they live in places that have the things they need. Humans use natural resources for everything they do. Students describe the needs of plants and animals and their relationship with the local habitat as well as identify ways landscapes can be transformed into a habitat for plants and animals.

Engineers and engineering designers use this knowledge as they use materials in design solutions to make things that are useful to people. These lessons incorporate learning goals that support the principles and practices of engineering design, such as defining problems, testing materials, and evaluating possible solutions.

# **Course Requirements**

Grade Level - Kindergarten Duration - 2 Semesters Materials - None

# **1ST GRADE SCIENCE – A & B**

In First Grade Science, students will complete projects that are designed to allow for exploration and discovery. Students observe their surroundings and through observations of the natural world conduct inquiries into topics related to their healthy development.

# **Course Requirements**

Grade Level - 1st Grade Duration - 2 Semesters Materials - None

# 2ND GRADE SCIENCE – A & B Semester A

Second Grade Science introduces students to the process of observation and how important it is to the study of science. Learners will identify their five senses and why they are critical to observation. Students will use these observation skills throughout the course as they examine many different types of animals and their environments. Students begin by observing ants in their own environments and continue onto learning the different types of birds. Students will come to understand plant and animal rhythms and will perform small experiments with plants. Stories will be used to teach the students about nature and interactions that humans have with nature. They will continue to learn about animals and their characteristics habitats, and needs.

Students will learn through video, audio stories, hands-on participation and observation with nature. The teachers will conduct live assessments for the topics that had been covered throughout the week's lessons. Grade 2 Science provides students with the opportunity to expand their minds and see for themselves the way that animals and nature are a part of their everyday lives.

# Semester B

Semester B of Second Grade Science begins with the students learning the characteristics of the Weaverbird and Swiftlet bird. Learners will come to understand the different groupings of animals including those with vertebrates, invertebrates and warm and cold blooded animals, carnivores, herbivores and omnivores. Learners will be asked to recall the five senses that they discussed at the beginning of the course and compare them to the senses of animals. They will also learn how animals communicate and the relationship between animals and humans. The course ends with the students taking a closer look at the characteristics of reptiles, insects, birds of prey, and fish. At the close of the course students will have a deeper understanding and appreciation of animals and their habitats.

# **Course Requirements**

Grade Level - 2nd Grade Duration - 2 Semesters Materials - None

# 3RD GRADE SCIENCE – A & B Semester A

3rd Grade Science introduces students to experimentation as they journey through the earth and its many miracles. They will begin by learning about the earth, the sun and the moon. By participating in simple experiments students will explore the water cycle, gravity, the weather and its patterns, various types of terrain, and the role of plants in the production of oxygen and their importance to human survival. Learners will expand their knowledge through video, pictures, short readings, projects, and hands on experiments.

Learners will understand that experiments require the use of instruments, observation, recording, and drawing evidence-based conclusions. Grade 3 science provides students with the opportunity to expand their minds and see for themselves the way that science is a part of their everyday lives.

# Semester B

Semester B of Third Grade Science begins with the students writing a poem about the seasonal cycles. The learners continue with root formation, the interdependence of plants and humans, biomes of land and sea, extreme weather, rocks, vertebrates and invertebrates, as well as extinction. All these lessons are taught using video, projects, and experimentation. Semester B asks learners to look a bit deeper into things they encounter such as the ocean and weather.

# **Course Requirements**

Grade Level - 3rd Grade Duration - 2 Semesters Materials - None

# 4TH GRADE SCIENCE – A & B Semester A

4th Grade Science includes the three main domains of science which are physical, life, and earth and space science. Learners will use various kinds of experimenting, including field studies, systematic observations, models, and controlled experiences. The course begins with the explanation of the scientific method which the students continue to use and build upon throughout the course. The big picture of the earth is examined as students review the life on planet earth, salt and fresh water, and fast and slow changes that occur on the planet. Students go beyond planet earth, as they study galaxies, the solar system and other planets. Students examine the ways in which forces and motion can be measured and the concept that a single kind of matter can exist as a solid, liquid or gas. Grade 4 Science uses many modes of instruction including video presentations, enrichment activities, and hands-on experimentation.

# Semester B

Semester B of 4th Grade Science focuses on the relationship between heat, light, sound, and electrical energy and the way they can be transferred between each other. Learners distinguish between natural objects and objects made by humans as they examine technology and the role it plays in science. Students also look at life cycles of animals, plants, and humans and how they interact with each other. The course ends by looking at the ways that humans interact with the environment.

Students will use research skills, watch videos, and get their hands dirty in order to learn broader lessons that have to do with helping the environment.

# **Course Requirements**

Grade Level - 4th Grade Duration - 2 Semesters Materials - None

# 5TH GRADE SCIENCE – A & B

# Semester A

5th Grade Science continues to build on the science skills that have been obtained in years previous. There will be an emphasis on earth and space science, life science, and physical science. Students will begin the course by focusing on earth and space science by looking at the solar system and planets. Students will come to an understanding of the concept of the earth as a sphere and the earth's place in the solar system. The course continues with a focus on physical science and the different tools that can measure force, time, and distance. They will also grow in their understanding of how light and sound travel and interact with each other as well as the different types of energy. The semester concludes with a look into life science and the ways that organisms are interconnected. Instruction will include real life application, hands-on projects and assessments, and video and short research projects.

# Semester B

Semester B puts great emphasis on life science and begins by focusing on the many ecosystems of the earth and the way that all parts of ecosystems depend on each other. Students will learn the different types of ecosystems that exist. They will learn that ecosystems change and how the changes affect their ability to support their populations. Learners will examine plants; that they have different structures and how those structures allow them to respond to different needs. Students will also grow in their understanding of the importance of good nutrition to all living organisms. The course concludes with a look into the scientific process and the importance of investigations and conclusions in the study of science.

Instruction will include real life application, hands-on projects and assessments, and video and short research projects.

# **Course Requirements**

Grade Level - 5th Grade Duration - 2 Semesters Materials - None

# **SOCIAL STUDIES**

# **KINDERGARTEN SOCIAL STUDIES - A & B**

Kindergarten Social Studies includes history, geography, economics, and civics lessons plus additional resources for teachers and students.

This is a comprehensive course, integrating topics in civics and the arts. The course helps students build knowledge of the diverse civilizations, cultures, and concepts.

# **Course Requirements**

Grade Level - Kindergarten Duration - 2 Semesters Materials - None

# **1ST GRADE SOCIAL STUDIES - A & B**

First Grade Social Studies includes history, geography, economics, and civics lessons plus additional resources for teachers and students. This is a comprehensive course, integrating topics in civics and the arts. The course helps students build knowledge of the diverse civilizations, cultures, and concepts.

# **Course Requirements**

Grade Level - 1st Grade Duration - 2 Semesters Materials - None

# 2ND GRADE SOCIAL STUDIES - A & B

Second Grade Social Studies includes history, geography, economics, and civics lessons plus additional resources for teachers and students. This is a comprehensive course, integrating topics in civics and the arts. The course helps students build knowledge of the diverse civilizations, cultures, and concepts.

# **Course Requirements**

Grade Level - 2nd Grade Duration - 2 Semesters Materials - None

# **3RD GRADE SOCIAL STUDIES - A & B** Semester A

In third grade, social studies students will begin to explore the basic fundamentals of social studies including geography, civics, and economics. Learners will begin by creating and labelling maps and looking at different types of landscapes. Students will also look at the first explorers of the Americas and learn about the beginning of the United States. They will take a close look at their own personal heritage by mapping their ancestry. The semester concludes with learning about citizenship and what it means to be a good citizen. Learners will follow a step-by-step approach for successfully completing each lesson, which includes storytelling, repetition, projects, arts and crafts, and videos.

# Semester B

The second semester begins with introducing learners to the need for laws and government as well as governmental structures. Continuing in the semester, students will learn about money including how to save money as well as budgeting money. The semester concludes with an in-depth focus on economics.

# **Course Requirements**

Grade Level - 3rd Grade Duration - 2 Semesters Materials - None

# 4TH GRADE SOCIAL STUDIES - A & B Semester A

In 4th Grade Social Studies learners will use their understanding of social studies skills to explore their local states and communities. They will begin the course by learning the topography of their particular area. Students will do this by creating a detailed landscape model. This project will be hands-on and require students to do research of their communities. Learners will also research local animals and gain an understanding of local Native American ground in their part of the country. This course walks students through the research and report writing steps that will be vital to their continuation of social studies. They will continue to focus on their individual states as they do projects based on local geography, state capitols, as well as nearby natural wonders and landforms. The semester concludes with an introduction to colonial history. The course uses video, enrichment activities, and project-based learning to enhance the student's social studies skills.

# Semester B

Semester B of Grade 4 Social Studies picks up where semester A left off by looking further into frontier life of the early American settlers. Students examine the difficulties that early settlers faced when reaching America. They apply knowledge of historical thinking, chronology, turning points, individuals, and themes of local and Unites States history in order to understand how history has shaped the present and will shape the future. They will continue the focus of local history by doing research projects on settlers from their particular states and on how their state became a part of the Union. The transition from the pony express to the transcontinental railroad is a major theme that shows how quickly the United States developed. Students end by creating a time capsule that demonstrates what was important to early settlers from their particular states.

# **Course Requirements**

Grade Level - 4th Grade Duration - 2 Semesters Materials - None

# 5TH GRADE SOCIAL STUDIES - A & B Semester A

5th Grade Social Studies combines the study of United States History through the Civil War with a geographical exploration of the United States and what it has to offer. Students will use their understanding of social studies skills and concepts as they study the development of the United States. The first semester begins with early settlements of North America and allows learners to take an in-depth look into what life was like for colonists and Native Ameri- cans. Students will come to understand the causes of the Revolutionary War and the people that played a significant role in it. The semester ends with students examining the new nation and what life was like for European immigrants and those on the frontier. Students will learn through the use of video, journaling, and varied types of creative instruction.

# Semester B

Semester B begins with an exploration of the west and what life was like for those looking to find gold. Learners will then look at slavery and what lead to the Civil War. The course then takes a departure from American history and takes a more in-depth look into cultures, people, and the geography of the United States from past to present. Learners will have the opportunity to explore the country region by region and come to appreciate all that it has to offer. Students will conclude the course by planning and describing a trip they would like to take to a particular place within the United States. Students will take a hands-on approach as they get to know the geography, climate and culture of their country. Video, creative projects involving technology, journaling, and varied assessments will be used throughout the course.

# **Course Requirements**

Grade Level - 5th Grade Duration - 2 Semesters Materials - None

# **ELECTIVES**

# ARTS & CRAFTS K\*

This course provides a foundation for children's inherent artistic imagination and creativity by sharing the basics of art and making art. Students are introduced to lines, circles, recognizing and using shapes, creating a collage and concepts such as symmetry. Young artists will also explore a variety of media such as pastels, watercolors, crayons, tempera, and pencil drawing. A particular emphasis is on creating works of art. In this semester students will work with clay, draw with pastels, make fingerprint flowers, draw barns and animals using shapes and recognizing lines using the student's name.

# **Course Requirements**

Grade Level - Kindergarten Duration - 1 Semester Materials – None

### **ARTS & CRAFTS 1\***

This course provides a foundation for children's inherent artistic imagination and creativity by sharing the basics of art and making art. Students are introduced to primary colors, the color wheel, shapes such as lines and circles, and concepts such as symmetry. Young artists will also explore a variety of media such as pastels, watercolors, crayons, tempera, and pencil drawing. A particular emphasis on this course is on creating works of art. In this semester students will create a watercolor tree, use a printing block, produce weather painting, and produce a watercolor painting.

## **Course Requirements**

Grade Level - 1st Grade Duration - 1 Semester Materials - None

# ARTS & CRAFTS 2\*

The student will see the artistic expressions and inventions from cultures around the world that are part of the history of mankind and development. Modern media provides many opportunities to the student. However, the student has the benefit to experience it more closely in art classes. Repetition, important for young children, is evident in these lessons. Repetition is provided at different age levels while using various tools and mediums. Home, family and friends, pets, and toys are the young student's world. The student will begin with their personal world as they think they know it and discover so much more about it. These lessons provide a deeper awareness of the world immediately around them, and eventually their journey will grow from there. Each student is an individual with unique ideas and talents. Our goal is to provide each student an opportunity for personal growth for themselves and the world in which we live.

# **Course Requirements**

Grade Level - 2nd Grade Duration - 1 Semester Materials - None

# **ART LEVEL 3\***

Art 3 explores the tools, elements, and principles of visual art from different cultures. The course explores interpreting messages in art forms such as drawing, sketching, architecture, painting, illustration, sculpture, photography, and textile art. Topics include lines, shapes, patterns, balance, movement, rhythm, mood, repetition, expression, emphasis, theme, and solving design issues. The course projects and portfolio encourage evaluation of personal, professional, and community art.

# **Course Requirements**

Grade Level - 3rd Grade Duration - 1 Semester Materials - None

# **DIGITAL ART DESIGN 1\***

This course introduces concepts and methods used in the creation of digital art. The course explores design principles, common applications of digital artwork, and techniques for brainstorming and developing an artistic idea. Topics include artistic mediums such as digital photography, 2D computer graphics, web design, and digital illustration, relevant tools, techniques, and skills of each medium. Supporting topics include meaning, audience, impact, and ethics in the creation and use of digital media. Course projects include the creation of a digital photograph and a web page.

# Course Requirements

Grade Level – 4th – 5th Grade Duration – 1 Semester Materials - None

### **DIGITAL ART DESIGN II\***

Digital Art and Design II explores digital art, how life relates to art, and how individual works of art are interpreted. Topics include design, principles, types and common applications of digital artwork, and techniques for brainstorming and developing an artistic idea, artistic mediums (3D computer graphics, animation, digital video, and digital audio). Supporting topics include expression, purpose, meaning, ethics, testing, critique, improvement, presentation, and distribution in the creation and use of digital media. Course projects include the creation of a digital animation and a piece of digital audio.

# **Course Requirements**

Grade Level – 5th Grade Grade Duration – 1 Semester Materials - None Prerequisites – Digital Art Design 1

# FOUNDATIONS IN READING\*

Foundations in Reading reviews reading skills that build a strong foundation for effective reading. Topics include: a review of sounds in words by pronouncing initial, medial vowel, and final phonemes by segmenting and blending phonemes. The course begins with reading one-syllable words and moves onto multi-syllable words, practice decoding words in isolation and in the context of sentences, poems, stories, as well as informational texts. Reading fluency focuses on reading for accuracy, rate, expression, purpose, and understanding.

### **Course Requirements**

Grade Level – 2nd - 3rd Grade Duration - 1 Semester Materials – None

### HEALTH K - 1 - A & B

Health K-1 helps young learners establish a basic understanding of the aspects of health. Students focus on the various aspects of their health and how they can make healthy choices. Topics of study include personal safety, healthy behaviors, nutrition, communication, disease prevention, basic anatomy and physiology, and values of cooperation and teamwork.

### **Course Requirements**

Grade Level - Kindergarten - 1st Grade Duration - 2 Semesters Materials - None

# HEALTH 2 - 3 - A & B

Health 2-3 helps young learners establish a basic understanding of the aspects of health. Students focus on the various aspects of their health and how they can make healthy choices. Topics of study include personal safety, healthy behaviors, nutrition, disease prevention, conflict resolution, basic anatomy and physiology, and the values of respect and cooperation.

### **Course Requirements**

Grade Level - 2nd - 3rd Grade Duration - 2 Semesters Materials - None

# **KEYBOARDING\***

The Keyboarding curriculum introduces new keys by rows, whereby students first learn the middle row, then the top row and the bottom row of the keyboard. The content is designed with a strong focus on sight and high frequency words. This course assumes no keyboarding experience and will guide students through efficiently using keyboard.

# **Course Requirements**

Grade Level - 3rd - 5th Grade

Duration - 1 Semester

Materials - None

Tech Requirements - Students will need a computer or laptop for this course. Tablets are not sufficient.

### **SCRATCH CODING\***

Scratch is a program developed by MIT teaching students the basics on how computers think! This program will introduce students to real coding programs and allow them to drag and drop coding blocks creating a fully functional program. The simple user interface and tutorials allow students to quickly create and run their code to see its results!

# Course Requirements

Grade Level - 3rd – 5th Grade Duration - 1 Semester Materials - None

Tech Requirements - Students will need a computer or laptop for this course. Tablets are not sufficient.

# **ELECTIVES - WORLD LANGUAGES**

# **INTRODUCTION TO SPANISH - A & B**

Introduction to Spanish allows students to explore the basics of the Spanish language. Students will learn about the culture of Mexico. They will also learn basic vocabulary through interactive games, videos, and different forms of practice activities.

### **Course Requirements**

Grade Level – Kindergarten – 5th Grade Duration - 2 Semesters Materials – None

# SPANISH LEVEL 1 - A & B

In Spanish Level One, students will continue to learn the basics of Spanish including greetings and introductions, numbers 11-20, days of the week, clothing, Spanish culture, flamenco, and weather. They will expand basic vocabulary and learn common phrases and questions.

### **Course Requirements**

Grade Level – 1st – 5th Grade Duration - 2 Semesters Materials – None

# SPANISH LEVEL 2 - A & B

The Spanish Level Two course allows students to learn new Spanish vocabulary. The course also begins to teach letter sounds and syllables in the target language. Students will explore the culture and traditions of Peru. They will also learn new vocabulary and more about the Peruvian culture through interactive games and different forms of practice activities.

# **Course Requirements**

Grade Level – 2nd to 5th Grade Duration - 2 Semesters Materials – None

# SPANISH LEVEL 3 - A & B

The Spanish Level Three course dives deeper into the Spanish language. Students will explore the culture of the Caribbean Islands. They will begin to learn about letter combinations/blends and their syllables as well as new vocabulary. Students will be introduced to basic Spanish grammar rules. They will also be focusing on asking and answering questions in the target language. They will be able to participate in interactives games and activities.

### **Course Requirements**

Grade Level – 3rd – 5th Grade Duration - 2 Semesters Materials – None

# SPANISH LEVEL 4 - A & B

The Spanish Level Four course goes deeper into learning the Spanish language. Students will build their Spanish vocabulary and learn grammar rules that apply to the target language. They will explore countries in South America, along with their cultures and traditions. Students will learn about seasons and how seasons are opposite in Patagonia. They will be engaged in learning the Spanish culture and language through interactive games and activities.

## **Course Requirements**

Grade Level – 4th – 5th Grade Duration - 2 Semesters Materials – None

# SPANISH LEVEL 5 - A & B

The Spanish Level Five course takes students on a journey to countries in Central America. Students will be immersed in the Central American culture and language. Students will dive deeper into grammar rules that apply in the target language. They will learn to write simple sentences in Spanish. Students will enjoy learning the language through interactive games and activities.

# **Course Requirements**

Grade Level - 5th Grade Duration - 2 Semesters Materials – None COURSE LIST LOWER SCHOOL

# LANGUAGE ARTS

KINDERGARTEN LANGUAGE ARTS - A & B 1ST GRADE LANGUAGE ARTS - A & B 2ND GRADE LANGUAGE ARTS - A & B 3RD GRADE LANGUAGE ARTS - A & B 4TH GRADE LANGUAGE ARTS - A & B 5TH GRADE LANGUAGE ARTS - A & B

# MATH

KINDERGARTEN MATH - A & B 1ST GRADE MATH - A & B 2ND GRADE MATH - A & B 3RD GRADE MATH - A & B 4TH GRADE MATH - A & B 5TH GRADE MATH - A & B

# **SCIENCE**

KINDERGARTEN SCIENCE - A & B 1ST GRADE SCIENCE - A & B 2ND GRADE SCIENCE - A & B 3RD GRADE SCIENCE - A & B 4TH GRADE SCIENCE - A & B 5TH GRADE SCIENCE - A & B

# **SOCIAL STUDIES**

KINDERGARTEN SOCIAL STUDIES- A & B 1ST GRADE SOCIAL STUDIES - A & B 2ND GRADE SOCIAL STUDIES - A & B 3RD GRADE SOCIAL STUDIES - A & B 4TH GRADE SOCIAL STUDIES - A & B 5TH GRADE SOCIAL STUDIES - A & B

# **ELECTIVES**

ARTS & CRAFTS K\* ARTS & CRAFTS 1\* ARTS & CRAFTS 2\* ART LEVEL 3\* DIGITAL ART DESIGN I\* DIGITAL ART DESIGN II\* FOUNDATIONS IN READING\* HEALTH K-1 - A & B HEALTH 2-3 – A & B KEYBOARDING\* SCRATCH CODING\*

# **ELECTIVES - WORLD LANGUAGES**

INTRODUCTION TO SPANISH - A & B SPANISH LEVEL 1 - A & B SPANISH LEVEL 2 - A & B SPANISH LEVEL 3 - A & B SPANISH LEVEL 4 - A & B SPANISH LEVEL 5 - A & B

# KHDA COURSES (UAE STUDENTS ONLY)

MORAL, SOCIAL & CULTURAL STUDIES NON-NATIVE/ NATIVE ISLAMIC STUDIES NON-NATIVE/ NATIVE ARABIC



# LANGUAGE ARTS

# 6TH GRADE LANGUAGE ARTS - A & B

# Semester A

6th Grade Language Arts is divided into two main categories: Storytelling and Heroes. Assignments include writing a narrative essay and completing a book report.

# Semester B

Semester B covers the main topics of Myth and Poetry. Student assignments include writing an original fairy tale and composing a poem.

# **Course Requirements**

Grade Level - 6th Grade Duration - 2 Semesters Materials – None

# 7TH GRADE LANGUAGE ARTS - A & B

# Semester A

Students explore informational texts, including biographies, personal accounts of events, presidential speeches, persuasive letters, and differences between types of musical genres. Readings include texts about historical figures, such as The Story of My Life by Helen Keller, Jane Goodall, and Zora Neale Hurston to demonstrate concepts such as explicit and implicit information, central ideas and key details, and claims and arguments.

# Semester B

Students analyze literary texts from novels, short stories, fairy tales, poems, and plays. Readings include Alice's Adventures in Wonderland by Lewis Carroll, excerpts from Black Beauty, and poetry by Emily Dickinson, Robert Frost, William Wordsworth to demonstrate concepts such as comparing how written texts are portrayed in film or audio and ways to understand explicit and implicit information, theme, characters, plot, poetic and dramatic techniques, and figurative language.

# **Course Requirements**

Grade Level - 7th Grade Duration - 2 Semesters Materials – None

# 8TH GRADE LANGUAGE ARTS - A & B Semester A

In this exciting course, students will master the subtle and complex art of the Standard American English writing style, allowing them to express their ideas more clearly and effectively than ever before. As students become experts on sentence structure, verb tenses and punctuation, they'll learn not only what the grammar rules are, but the logic behind them.

Alongside this rigorous language instruction, students will analyze the poetry of legendary writers such as Seamus Heaney, Robert Frost, and Jane Kenyon. In addition, they will practice effective research techniques and prepare complete and polished reports and essays. Their work will also cover formal letter writing, biographical essays, and creating a bibliography. Students will use strategies such as the Sign and Design Mind and Clustering to help form their ideas and develop stories and arguments.

Entertaining videos and diverse reading selections provide a wealth of information. Peer discussions and teacher feedback also contribute to help students learn the processes needed to become more effective writers.

# Semester B

Students explore literary and informational texts, including novels, short stories, poems, articles, and political speeches. Readings include excerpts from the novels Fahrenheit 451, Hatchet, and Black Beauty, informational texts about topics such as global warming, fast food, the widespread presence of corn in food, and how sleep affects learning ability, infographics, and videos to demonstrate concepts such as explicit and implicit information, theme, central idea, figurative language, grammar, usage, punctuation. Writings include informational and argument.

# **Course Requirements**

Grade Level - 8th Grade Duration - 2 Semesters Materials - None

# **INTENSIVE READING\***

This course explores foundational reading skills for Middle School students to remediate gaps in reading fluency, comprehension, vocabulary and vocabulary skills, grammar skills, and writing fluency through responses to a variety of literary and informational texts.

# **Course Requirements**

Grade Level - 6th - 8th Grade Duration - 1 Semester Materials - None

# MATH

# 6TH GRADE MATH - A & B Semester A

Students build on previously learned concepts such as adding, subtracting, multiplying, and dividing and deepening knowledge of arithmetic with fractions, decimals, and negative numbers to solve real-world problems. Topics include statistics, ratios, unit conversions, geometry, writing and evaluating expressions with variables and exponents, and working with equations.

# Semester B

Students build on concepts such as positive and negative integers and fractions to learn about rational numbers and how to compare them. Topics include finding the distance between points on the number line and in the coordinate plane, solving geometry problems, relationships between variables and how to represent them, ratios and unit rates, solving real-world problems, data and how to display and mathematically describe data.

# **Course Requirements**

Grade Level - 6 Duration - 2 Semesters Materials - None

# 7TH GRADE MATH - A & B Semester A

Students explore adding and multiplying rational numbers by using number lines, rules, and properties. Topics include how to solve problems by finding and comparing unit rates, writing expressions using properties, writing and solving simple linear equations using different methods, probability and statistics to interpret and calculate simple probabilities and learn about populations and samples. Geometry topics include solving problems involving scale drawings, circles, and angle relationships.

### Semester B

Students explore subtracting and dividing rational numbers by using different methods to perform four operations. Topics include interpreting proportional relationships and equivalent expressions, writing and solving linear equations and inequalities to solve real-world problems, comparing two data sets of random samples using center values and variability measures to make conclusions about populations. Geometry topics include solving problems that involve the area, surface area, volume, and cross-sections of two- or three-dimensional objects.

# **Course Requirements**

Grade Level - 7th Grade Duration - 2 Semesters Materials - None

# 8TH GRADE MATH - A & B Semester A

Students explore rational and irrational numbers, solving linear equations from contextual situations, and analyzing properties of functions with a focus on linear functions, and scientific notation. Geometric topics include rigid transformations on figures and proving congruence of figures through a series of rigid transformations.

### **Semester B**

Students explore multi-step equations and proportions, applies knowledge of proportional relationships to geometry to perform transformations on figures, and prove similarity of figures through a series of transformations. Topics include analyzing linear relationships and functions, solving systems of linear equations using different methods, application of algebraic skills to statistics, analyze and interpret patterns in bivariate data, and finding volumes of circular three-dimensional objects.

### **Course Requirements**

Grade Level – 8th Grade Duration - 2 Semesters Materials – None

### PRE-ALGEBRA – A & B

Gain a true understanding of higher-level concepts such as functions and systems of equations while experiencing intrigue and fun in this hands-on course full of slideshows, applications, videos, and real-world scenarios.

### **Course Requirements**

Grade Level - 8th Grade Duration - 2 Semesters Prerequisites - 7th Grade Math

# **SCIENCE**

# 6TH GRADE SCIENCE - A & B

# Semester A

Students investigate the interaction between systems and what factors affect their growth, and the life cycles of plants and animals to find out how they reproduce plants and animals. Topics include cells, the hierarchy of organization, covering tissues, organs, and organ systems.

# Semester B

Students explore topics through many creative and interactive assets, including virtual labs and review games to immerse themselves in 21st-century online learning. Topics include energy and its transformation, matter, natural cycles, the effect of the sun on ocean and air currents, different types of pollution, and the effects of greenhouse gases on the Earth's climate.

# **Course Requirements**

Grade Level - 6th Grade Duration - 2 Semesters Materials - None

# 7TH GRADE SCIENCE - A & B Semester A

Students examine concepts from the fields of chemistry, biology, and ecology. The relationship between matter, energy, and chemical reactions is explored to understand cellular respiration and photosynthesis, while synthetic materials are analyzed to see how they impact society.

# Semester B

Students investigate concepts from ecology and geology to explore the interactions between and among organisms in an ecosystem. Topics include types of rocks, the rock cycle, and Earth's resources to explore how Earth's processes can lead to natural hazard events and severe weather, and then discover how technology can help during disasters, as well as other benefits of technology.

# **Course Requirements**

Grade Level - 7th Grade Duration - 2 Semesters Materials - None

# 8TH GRADE SCIENCE - A & B Semester A

Students examine life science concepts from biology, ecology, environmental sciences, and explores scientific process to investigate the questions of ecology and genetic technology.

# Semester B

Students examine physical science, such as physics and space science, and the history of science to highlight influential scientists.

# **Course Requirements**

Grade Level - 8th Grade Duration - 2 Semesters Materials - None

# **SOCIAL STUDIES**

# 6TH GRADE SOCIAL STUDIES - A & B Semester A

Students explore the geographical, social, economic, and political foundations of early civilizations in Mesopotamia, Egypt, Ancient Israel, and India as they shift from nomadic societies to agricultural societies. The study of these civilizations includes the impact of geography, early history, cultural development, and economic change. The geographic focus includes the study of physical and political features, economic development and resources, and migration patterns.

# Semester B

Students explore the geographic, political, economic, and cultural development of ancient Greece, Rome, and China and applies historical thinking skills to understand implications of ancient literature, art, and philosophy on later Western culture. The course examines the birth and spread of Judaism, Christianity, Taoism, and Confucianism

# **Course Requirements**

Grade Level - 6th Grade Duration - 2 Semesters Materials – None

# 7TH GRADE SOCIAL STUDIES - A & B

# Semester A

Students explore the social, cultural, and technological developments occurring concurrently in Europe, Africa, and Asia in the years AD 500–1789. They also examine how archaeologists and historians uncover the past.

# Semester B

Students explore the growing economic interaction among civilizations during the Renaissance, Reformation, the Age of Exploration, and how the Enlightenment gave rise to democratic ideas that still resonate today. Topics include: the exchange of ideas, beliefs, technologies, and commodities inspire the Enlightenment philosophy and the interest in reason and authority, natural rights of human beings, the divine right of kings, experimentalism in science, and the dogma of belief.

# **Course Requirements**

Grade Level - 7th Grade Duration - 2 Semesters Materials – None

# 8TH GRADE SOCIAL STUDIES - A & B Semester A

Students explore early American history from pre-Columbian era and closely examine the evolution from the British Colonies to the creation of the United States. A close look at the ideology of the framing documents and nature of the American republic set against the backdrop of the challenges of growth and sectional divisions and conflict.

# Semester B

Students explore westward expansion, early Spanish missions in western North America through to Reconstruction, the Second Industrial Revolution, and connect these events to how policies and cultures are shaped. Topics include causes and effects of the Texas Revolution and the Mexican American War; the California gold rush; American Civil War, Indian Wars of the 19th Century.

# **Course Requirements**

Grade Level - 8th Grade Duration – 2 Semesters Materials – None

# **ELECTIVES - WORLD LANGUAGES**

# MS FRENCH 1 - A & B

French 1 focuses on developing listening skills by repeated exposure to the spoken language. Speaking skills are encouraged through recommended assignments using voice tools. Reading and writing skills, as well as language structures, are practiced through meaningful, real-life contexts. The use of technology enhances and reinforces authentic language development and fosters cultural understandings through exposure to native speakers and their daily routines.

# **Course Requirements**

Grade Level - 6th - 8th Grade Duration - 2 Semesters Materials – None

#### MS FRENCH 2 - A & B Semester A

Semester A focuses on the continuation and enhancement of language skills presented in Level 1. Vocabulary and grammar structures are revisited and expanded to provide students an opportunity to move towards an intermediate comprehension level. Speaking and listening skills are enhanced through recommended real-life voice activities. Listening skills are honed through online dialogues. Reading and writing skills are developed through access to completion of meaningful activities, reading of culturally related articles of interest and responding to reading in the target language. The use of technology enhances and reinforces authentic language development and fosters cultural understandings through exposure to native speakers and their daily routines.

# Semester B

Semester B continues the enhancement of language skills. Vocabulary and grammar structures are revisited and expanded as students explore other French-speaking areas. Speaking and listening skills are enhanced through recommended real-life voice activities. Listening skills are honed through online dialogues. Reading and writing skills are developed through access to completion of meaningful activities related to travel, to the Olympics, to natural disasters, and to the space program. Reading of culturally related articles of interest and responding to reading in the target language, along with the use of technology, reinforces authentic language development and fosters cultural understanding through exposure to native speakers and their daily routines. **Course Requirements** 

#### Course Requirements

Grade Level – 6th - 8th Grade

Duration - 2 Semesters

Materials - Semester B only - Joie De lire! Intermediate Reader Level 2. July 19, 2002 By Rinehart and Winston Holt

Prerequisites - French 1

### MS GERMAN 1 - A & B Semester A

The German 1 course is an introductory course teaching basic comprehension and communication in German. It coordinates the study of language with culture through the use of video, audio and media production. This course assumes no prior knowledge of the German language. It introduces the fundamentals of conversational and grammatical patterns of the German language with presentations to show the material. Students who complete the course successfully will begin to develop a functional competency in the four primary language areas: speaking, reading, listening and writing, while establishing a solid grammatical base and exploration into German culture.

### Semester B

The second semester course will expand on the knowledge gained from German 1A and further develop their skills in pronunciation, grammar skills, grammar structures and vocabulary. Oral practice (via Voice Tools), homework assignments, games, songs, watching videos, quizzes, tests, projects and other activities such as writing wikis and journal entries, will be emphasized to accomplish this goal. The different cultures of the German-speaking world are emphasized through readings, videos and other activities. Taking the time to learn another language is a mind-expanding activity that can open up a world of opportunities and advantages.

# **Course Requirements**

Grade Level - 6th - 8th Grade Duration – 2 Semesters Materials – None

# MS GERMAN 2 - A & B

# Semester A

In this course, students build on grammar and language skills that they acquired during their German 1 course. While reviewing basic grammar skills, (present and past tenses), students learn and study stem-changing verb conjugation and explore cultural themes regarding current events, famous German people, music and famous festivals.

# Semester B

In the second semester course, students increase their proficiency in being able to communicate by forming more complex German sentences in a variety of tenses using all four cases (Nominative, Accusative, Dative and Genitive). The variety of topics increases also, from exploring different careers to discussing relationships. Cultural themes are entwined throughout this course related to going shopping, to going to the zoo and also to travel throughout the German-speaking world.

# Course Requirements

Grade Level – 6th - 8th Grade Duration - 2 Semesters Materials - None Prerequisites - German 1

# MS SPANISH 1 - A & B

# Semester A

This course introduces students to the beauty of the Spanish language and the richness of its diverse cultures. In the Spanish 1 course, students will learn beginning grammar and vocabulary skills to help build basic fluency and language proficiency. They will explore the culture of Spanish-speaking countries through engaging interactive games, videos, and audio recordings and apply their learning through written practice, listening, and speaking exercises.

# Semester B

Students explore how to discuss school subjects, professions, and daily routines, as well as illness and injury, shopping, and money through reading, writing, listening, and speaking. The course also explores cultures of some Spanish-speaking countries, such as Venezuela, Chile, Ecuador, Guatemala, and Cuba.

# Course Requirements

Grade Level - 6th - 8th Grade Duration - 2 Semesters Materials – None

# MS SPANISH 2 - A & B Semester A

In Spanish 2, students continue learning grammar and vocabulary skills to help build basic fluency and language proficiency. They will explore more of the culture of Spanish-speaking countries through engaging interactive games, videos, and audio recordings and apply their learning through written practice, listening, and speaking exercises. Topics include family traditions in Spanish-speaking countries; likes and dislikes; sports and pastimes, and travel. Students will learn more about conjugating verbs, as well as using prepositions and infinitives.

# Semester B

Students continue to build reading, writing, listening, and speaking skills in order to discuss transportation, extracurricular interests, professions, cuisine, clothing, health, and technology. Topics included: present, past, future, and conditional tenses, present subjunctive mood, explores cultures of some Spanish-speaking countries, such as the Dominican Republic, Equatorial Guinea, Honduras, Uruguay, and Panama.

# **Course Requirements**

Grade Level – 6th - 8th Grade Duration - 2 Semesters Materials - None Prerequisites - Spanish 1

# **ELECTIVES**

# **6TH GRADE PHYSICAL EDUCATION\***

This course explores fitness, nutrition, exercise basics, and specific sports. Topics include fundamental aspects of physical activity (safety tips, warm-up and cooldown exercises, and good sportsmanship), personal fitness and nutrition, and the importance of regular exercise to encourage lifelong healthy activity. Sports in the course include dance, baseball, basketball, pickleball, volleyball, soccer, and football. Project 1 creates a health and fitness log and project 2 explores the basics of golf.

# **Course Requirements**

Grade Level - 6th Grade Duration - 1 Semester Materials - None

# 7TH GRADE PHYSICAL EDUCATION\*

This course explores the importance of physical fitness for good health and provides opportunities to participate in a wide variety of activities. Topics include running, strength training, dancing, swimming, pickleball, tennis, volleyball, baseball, bowling, basketball, soccer, and football. Other activities include keeping an exercise and nutrition log and creating an exercise routine for themselves, as well as the importance of warming up and cooling down muscles before and after exercise, health-related versus skill-related fitness, goal setting, and safety.

# **Course Requirements**

Grade Level - 7th Grade Duration - 1 Semester Materials - None

# **8TH GRADE PHYSICAL EDUCATION\***

This course explores personal health and wellness benefits of physical fitness with a variety of activities, a fitness and nutrition log, and two projects. Project, one creates a personal fitness plan and project two creates a synchronized swim routine. Topics include endurance and flexibility applied in activities such as running, hiking, stretching, and dancing, as well as improving fitness and well-being with heart-rate monitoring, nutrition tracking, and interval training. Sports skills are practiced in pickleball, tennis, soccer, hockey, football, baseball, basketball, and bowling.

# **Course Requirements**

Grade Level - 8th Grade Duration - 1 Semester Materials – None

# MS 2D STUDIO ART\*

Do you like to draw, paint, or take pictures? Whatever medium you prefer, this course will teach you the design elements and principles needed to create a work of art and explore your artistic inspirations. You'll also travel back in time to look at art in different cultures and learn about the art of critiquing. Let's turn your creative dreams into reality!

## **Course Requirements**

Grade Level – 6th - 8th Grade Duration - 1 Semester Materials – None

# **MS CAREER EXPLORATION\***

How do you pick a career path when you're not sure what's even out there? This course allows you to begin exploring options in fields such as teaching, business, government, hospitality, health science, IT, and more! You'll align your interests, wants, and needs to career possibilities, including the required education for each. Let's find a pathway that works for you.

## **Course Requirements**

Grade Level - 6th - 8th Grade Duration - 1 Semester Materials – None

#### MS CRITICAL THINKING A & B Semester A

Our brains are incredible tools, and they help us observe, analyze, create, and take action every single day. In this course, you are going to learn to unlock one of your brain's most stunning powers: critical thinking. Get ready to go on an adventure and solve mysteries by applying your own critical thinking skills as you make your way through your units. Then you'll use these specialized skills towards issues in the real-world both inside and outside of the classroom.

# Semester B

You have already learned that critical thinking skills are especially important for you as you are experiencing emotional and physical changes and trying to determine friendships, interests, politics, and more. In this course, you'll learn more about the foundational skills you need to think logically and critically: observation, evaluation, and analysis. You'll also learn about things like deductive and inductive reasoning, logical fallacies, verbal and nonverbal communication, components of a debate and debate etiquette, and more.

## **Course Requirements**

Grade Level – 6th - 8th Grade Duration - 2 Semesters Materials – None

# **MS DIGITAL ART AND DESIGN\***

The world is filled with so many different forms of art – including digital art. In this course, you'll explore this special genre of art found in everything from advertising to animation to photography and beyond. Additionally, you'll tap into your creative side to create digital art and make it come alive.

### **Course Requirements**

Grade Level – 6th - 8th Grade Duration - 1 Semester Materials - None

# **MS EXPLORING MUSIC\***

What comes to mind when you hear the word 'music'? Do you think about your favorite band or artist? In this course, you'll learn about how we hear music; how music affects our lives; essential elements of music like rhythm, pitch, and harmony; different musical genres; singing and your voice; various instruments; music composition; and the history and culture of music over the years.

# **Course Requirements**

Grade Level - 6th - 8th Grade Duration - 1 Semester Materials – None

### **MS HEALTH\***

This course explores how behavioral choices, such as nutrition and physical activity, affect health, then provides information to make healthy choices. Topics include nutrition and physical activity; growth, developmental health; safety and injury prevention; drink, tobacco and other drugs; mental, emotional, and social health; and personal and community health.

# **Course Requirements**

Grade Level - 6th - 8th Grade Duration - 1 Semester Materials – None

# **MS PHOTOGRAPHY 1A\***

Students explore proper use of photography equipment, how to build a portfolio of work, and describes the steps to starting a career in this field. Topics include the habits and etiquette of the profession. Photography equipment is not needed. Practice is offered through digital simulations.

# **Course Requirements**

Grade Level - 6th - 8th Grade Duration - 1 Semester Materials - digital camera or smartphone with apps

# **MS SCRATCH CODING\***

Scratch Coding introduces the basics and logic of programming language in Scratch. Topics include introducing and using the different tools in Scratch; creating programs that include loops, variables, lists, or conditionals; and identifying and fixing errors in a program. The course concludes with putting the tools and concepts altogether to create a larger program.

# **Course Requirements**

Grade Level – 6th - 8th Grade Duration - 1 Semester Materials - None **COURSE LIST MIDDLE SCHOOL** 



# 6-8

# LANGUAGE ARTS

6TH GRADE LANGUAGE ARTS - A & B 7TH GRADE LANGUAGE ARTS - A & B 8TH GRADE LANGUAGE ARTS - A & B INTENSIVE READING\*

# MATH

6TH GRADE MATH - A & B 7TH GRADE MATH - A & B 8TH GRADE MATH - A & B PRE-ALGEBRA - A & B

# **SCIENCE**

6TH GRADE SCIENCE - A & B 7TH GRADE SCIENCE - A & B 8TH GRADE SCIENCE - A & B

# **SOCIAL STUDIES**

6TH GRADE SOCIAL STUDIES - A & B 7TH GRADE SOCIAL STUDIES - A & B 8TH GRADE SOCIAL STUDIES - A & B

# **ELECTIVES - WORLD LANGUAGES**

MS FRENCH 1 - A & B MS FRENCH 2 - A & B MS GERMAN 1 - A & B MS GERMAN 2 - A & B MS SPANISH 1 - A & B MS SPANISH 2 - A & B

# **ELECTIVES**

6TH GRADE PHYSICAL EDUCATION\* 7TH GRADE PHYSICAL EDUCATION\* 8TH GRADE PHYSICAL EDUCATION\* MS 2D STUDIO ART\* MS CAREER EXPLORATION\* MS CRITICAL THINKING A & B MS DIGITAL ART AND DESIGN\* MS EXPLORING MUSIC\* MS HEALTH\* MS PHOTOGRAPHY 1 A\* MS SCRATCH CODING\*

# KHDA COURSES (UAE STUDENTS ONLY)

MORAL, SOCIAL & CULTURAL STUDIES NON-NATIVE/ NATIVE ISLAMIC STUDIES NON-NATIVE/ NATIVE ARABIC



To graduate and receive a High School diploma, students must earn 24 credits in the following subjects. A student must be FULL-TIME their senior year to be eligible for a diploma. The two last semesters of a student's senior year must be taken consecutively.

SUBJECTS	CREDITS
English	4 credits
Math	4 credits (Algebra 1 and higher)
Science	4 credits (must include 2 Lab Science credits)
History & Social Science	4 credits
World Language	2 credits (must be 2 credits of the same language, non-English language course)
Physical Education	0.5 credits
Health	0.5 credits
Electives	5 credits
Total	24 Credits

# **ENGLISH**

# ENGLISH 9 - A & B Semester A

Students explore reading, writing, and analysis using both informational and literary texts, as well as comparison of texts in different mediums. Readings include The Princess and the Goblin by George Mac-Donald, among others, to demonstrate understanding of textual evidence, themes, central ideas, inferences, word choice, and figurative and connotative language, and grammar and usage. Writings include a personal narrative (memoir) and a literary analysis.

# Semester B

Students explore reading, writing, and analysis using both informational and literary texts. Readings include Anthem by Ayn Rand, among other texts of varying time periods to demonstrate concepts such as textual evidence, themes, central ideas, characters, inferences, rhetorical techniques, structure and style, and arguments and claims. Writing topics include grammar, usage, punctuation, spelling, style manuals, phrases, and clauses, culminating in an informational essay and an argument essay.

# **Course Requirements**

Grade Level - 9th Grade Duration – 2 Semesters Materials - None

# ENGLISH 10- A & B Semester A

Students examine reading, writing, and analysis of informational texts, argument texts, and videos to demonstrate understanding of explicit and inferred meaning, textual evidence, central ideas, arguments and claims, organizational structures, figurative and rhetorical language, and the effect of word choice on tone. Skill building focuses on spelling, grammar, usage, punctuation, domain-specific vocabulary, context clues, and affixes. Writing topics include an informational essay and an argument essay.

# Semester B

Students explore reading, writing, and analysis of literary texts from around the world and across history. Readings include Antigone by Sophocles, among others, to demonstrate understanding of textual evidence, themes, inferences, characterization, figurative language, figures of speech, and literary devices, as well as building about foundational knowledge of context clues, word nuances, affixes, phrases, clauses, and parallel construction. Writing topics include a literary analysis essay and a personal narrative essay.

# Course Requirements

Grade Level - 10th Grade Duration - 2 Semesters Prerequisites – English 9 or equivalent Materials - None

# ENGLISH 11 - A & B Semester A

Students examine reading, writing, and analysis using both informational and argument texts. Readings include seminal US texts such as "What to the Slave Is the Fourth of July?" by Frederick Douglass, speeches, court documents, and scientific articles to explore textual evidence, central ideas, inferenc es, word choice, figurative language, spelling, hyphens, contest- ed usage, figures of speech, and reference materials. Writing topics include a researched informational essay and a researched argument essay.

# Semester B

Students explore reading, writing, and analysis using both informational and literary texts. Readings include poetry and drama, such The Crucible by Arthur Miller to demonstrate literary elements of plot, setting, character, themes, and central ideas. Comparing works from different time periods, reviewing context and word nuances, and learning about punctuation, style manuals, phrases, clauses, and parallel structure to improve reading and writing skills. Writing topics include a fictional narrative and a literary analysis.

# **Course Requirements**

Grade Level - 11th Grade Duration - 2 Semesters Prerequisites – English 10 or equivalent Materials - None

# ENGLISH 12 - A & B

# Semester A

Students explore analysis of informational and argument texts. Readings include seminal US texts such as the Declaration of Independence, presidential speeches, court documents, and articles related to innovative technology to demonstrate rhetoric, figurative language, theme, purpose, specialized vocabulary, text structure, word nuances, inferences, research, evidence, and reference sources. In addition, students learn about context clues, contested usage, and syntax errors.

Writings include a researched informational essay and a researched argument essay.

# Semester B

Students analyze narrative texts from British literature from the Middle Ages through modern times. Demonstrated skills include explicit and implicit meanings, figurative language, literary devices, central ideas, themes, and narrative and structural elements. Writings include a fictional narrative in the style of Gothic Romanticism and a literary analysis comparing and contrasting two British literature texts of different eras.

# **Course Requirements**

Grade Level - 12th Grade Duration - 2 Semesters Prerequisites – English 11 or equivalent Materials - None

# **HONORS ENGLISH**

### HONORS ENGLISH 9 - A & B Semester A

Students explore reading, writing, and analysis using both informational and literary texts, as well as comparison of texts in different mediums. Readings include The Princess and the Goblin by George Mac-Donald, among others, to demonstrate understanding of textual evidence, themes, central ideas, inferences, word choice, and figurative and connotative language, and grammar and usage. Writings include a personal narrative (memoir) and a literary analysis. **Semester B** 

Students explore reading, writing, and analysis using both informational and literary texts. Readings include Anthem by Ayn Rand, among other texts of varying time periods to demonstrate concepts such as textual evidence, themes, central ideas, characters, inferences, rhetorical techniques, structure and style, and arguments and claims. Writing topics include grammar, usage, punctuation, spelling, style manuals, phrases, and clauses, culminating in an informational essay and an argument essay.

### **Course Requirements**

Grade Level - 9th Grade Duration - 2 Semesters Materials – None

# HONORS ENGLISH 10 - A & B Semester A

Students investigate the writing and discourse process- es while supplementing them with the reading and grammar strategies necessary to comprehend and compose nonfiction texts. Exploration of language skills in writing topics include researching, organizing, and developing descriptive, persuasive narrative, and expository compositions.

# Semester B

This semester explores literature from multiple eras and cultures. Readings include epic poetry, folktales, ancient verses, Greek tragedy such as Antigone by Sophocles, short stories, and excerpts from novels to examine language, ideas, characters, and literary elements.

Exploration of evidence, context clues, symbolism, affixes, and denotative and connotative meanings are provided in short research and writing projects. Writing topics also include a character analysis and a personal narrative.

### **Course Requirements**

Grade Level - 10th Grade Duration - 2 Semesters Prerequisites – English 9 or equivalent Materials - None

## HONORS ENGLISH 11 - A & B Semester A

Students examine seminal US documents ranging from Thomas Paine's Common Sense through contemporary speeches by the President, among other texts to demonstrate knowledge of the use of rhetorical devices, inference, symbolism, bias, and the drawing of conclusions. The course focuses on argument and persuasion through formal speaking and writing.

# Semester B

Students explore American writers and the historical events that influenced their works. Reading selections include The Red Badge of Courage by Stephen Crane, works the following eras and influences: Transcendentalism, Romanticism, American Gothic, American Civil War, Regionalism, Realism, Naturalism, Imagist, Harlem Renaissance, and Modernism. The course emphasizes critical and analytical thinking as well as reading and writing skills. Honors includes additional examples and practice for students.

# **Course Requirements**

Grade Level - 11th Grade Duration - 2 Semesters Prerequisites – English 10 or equivalent Materials - None

## HONORS ENGLISH 12 - A & B Semester A

Students explore rhetoric using informational texts, including seminal US documents that shaped legal and social policy to examine reasoning that includes the chain of legal reasoning. Honors includes additional examples and practice for students.

# Semester B

Students synthesize knowledge and use critical thinking to analyze narrative texts from British literature across different eras—from the Middle Ages through modern times. Students read Frankenstein by Mary Shelley along with works by British writers such as Shakespeare and Tolkien. These reading selections demonstrate concepts such as narrative elements and structures, literary devices such as symbolism and sarcasm, and inference. Topics include vocabulary, context clues, word choice, and affixes. In addition, students write a fictional narrative and a literary analysis. Honors includes additional examples and practice for students.

# **Course Requirements**

Grade Level - 12th Grade Duration - 2 Semesters Prerequisites – English 11 or equivalent Materials - None

# MATH

### ALGEBRA 1 - A & B Semester A

Students explore the application of properties to simplify expressions with exponents and radicals, relationships between rational and irrational numbers, solving linear equations and inequalities, applying knowledge of linear equations and inequalities to solve and graph systems of linear equations and inequalities, applying operations on polynomials, factoring quadratic expressions, and solving quadratic equations using different methods.

# Semester B

Students explore the analysis of different types of functions presented as equations, graphs, tables, and verbal descriptions, identifying key features applied to real-world problems, using key features to compare different types of functions, transformations of functions, statistics, interpreting and analyzing data sets, as well as causation and correlation.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None

# GEOMETRY - A & B

# Semester A

Students explore writing formal proofs and

constructing geometric figures. Topics include transformations to explain the concepts of congruent and similar figures with a focus on the properties of congruent and similar triangles. Properties are proved with postulates, theorems, and formal proofs, as well as trigonometric ratios and their applications to real-world situations.

# Semester B

Students explore writing formal proofs and constructing geometric figures. Topics include slopes, midpoints, distance formula with a focus on their applications in coordinate proofs, theorems about circles as well as concepts related to circles, and two- and three-dimensional figures and probability.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - None Prerequisites - Algebra 1

### ALGEBRA 2 - A & B Semester A

Students explore solving quadratic equations with complex solutions and perform operations on polynomials, uses polynomial identities to solve problems, analyzes polynomial functions using different representations, and solves polynomial equations graphically, works with rational functions, and performing arithmetic operations on rational functions to graph them.

# Semester B

Students explore radical equations, rewrite expressions involving radicals, and graphing and solving radical equations. Concepts of trigonometry include ratios and using the unit circle to understand them, graph sine, cosine, and tangent functions, and explore key features to prove and apply trigonometric identities.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - None Prerequisites - Geometry

# **INTEGRATED MATH 1 - A & B**

In Integrated Math 1, students use arithmetic properties of subsets of integers and rational, irrational and real numbers by simplifying expressions, solving linear equations and inequalities, graphing equations, finding the equation of a line, working with monomials and polynomials, and factoring and completing the square.

Students use properties of the number system to judge the validity of results, justifying each step of the procedure to prove or disprove statements. Students compute perimeter, circumference, are, volume and surface area of geometric figures. Students also use basic trigonometric functions defined by the angles of a right triangle.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None

# **INTEGRATED MATH 2 - A & B**

Students in Integrated Math 2 will focus on pulling together and applying the accumulation of learning that they have acquired from their previous math courses. They will apply methods from probability and statistics; expand their repertoire of functions to include polynomial, rational, and radical functions; and expand their study of right triangle trigonometry. In addition, they will bring together all their experience with functions and geometry to create models and solve contextual problems.

# **Course Requirements**

Grade Level - 10th - 12th Grade Duration - 2 Semesters Materials - None Prerequisites - Integrated Math 1 or equivalent

# PRE-CALCULUS - A & B

# Semester A

In this course, students will understand and apply concepts, graphs and applications of a variety of families of functions, including polynomial, exponential, logarithmic, logistic and trigonometric. An emphasis will be placed on use of appropriate functions to model real world situations and solve problems that arise from those situations. A focus is also on graphing functions by hand and understanding and identifying the parts of a graph. A scientific and/or graphics calculator is recommended for work on assignments, and on examinations.

# Semester B

Pre-Calculus Part B covers the major units of Introductory Trigonometry and Graphs, Trigonometric Equations and Identities, Analytical Trigonometry, Sequences and Series, Conic Sections and an Introduction to Calculus. A focus is also on graphing functions by hand and under- standing and identifying the parts of a graph.

# **Course Requirements**

Grade Level - 11th - 12th Grade Duration - 2 Semesters Materials - None Prerequisites - Algebra 2

# **HONORS MATH**

# HONORS ALGEBRA 1 - A & B

In the Honors course, students will do in-depth study, problem-solving and application of algebraic concepts.

# Semester A

Students explore algebraic problems and apply the knowledge to real-life situations. Topics include linear inequalities, forms of linear equations, relate linear equations and functions, solve systems of equations and systems of inequalities, interpret solutions mathematically and contextually, statistics, measures of central tendency, relative frequencies, and scatter plots.

# Semester B

Students explore functions by exploring new families of functions, the effect of different transformations, key features of their graphs, and how they compare functions represented in different ways. Additional topics include polynomials on quadratics, quadratic equations and their graphs, various methods of factoring and solving quadratic equations, exponential growth and decay, and how linear, quadratic, and exponential functions compare to one another.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None

#### HONORS GEOMETRY - A & B Semester A

Students examine congruence, proofs, and constructions to prove statements about lines, angles, triangles, and quadrilaterals; apply the knowledge of transformations to learn a formal definition for similarity to write proofs, are introduced to trigonometry through its connection to the concept of similarity, derive and use formulas for the areas and volumes of two- and three-dimensional figures, and investigate cross sections and solids of revolutions.

# Semester B

Students explore the Pythagorean theorem, distance formula, midpoint formula, and slope formula to solve geometric problems and develop coordinate proofs. Topics include understand and apply theorems about circles to find arc lengths and areas of sectors of circles; apply the distance formula to write equations of circles in the coordinate system; and understand the concepts of permutations and combinations to explore the concept of probability.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - None Prerequisites - Algebra 1 or equivalent

# HONORS ALGEBRA 2 - A & B

# Semester A

Students explore polynomial, rational, radical, and trigonometric functions, solving equations, including quadratic equations over the complex numbers, as well as rational and radical equations.

# Semester B

Students explore modeling real-life situations with equations and inequalities, solving exponential

equations with logarithms, and synthesizing and generalizing a variety of functions families, how to make probability decisions and how to use statistics and sampling processes to under- stand data sets and answer questions about samples and populations.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - Calculator Prerequisites – Geometry

# **SCIENCE**

# PHYSICAL SCIENCE - A & B Semester A

Students examine science as a whole and the course leads to how methods and tools provide scientists meaningful results. Topics include chemistry to interpret chemical names, formulas, equations, and models to discover the types and properties of reactions and nuclear reactions and their uses, historical perspectives, and the social impacts.

# Semester B

Students explore physics, are introduced to topics in engineering, and the ways scientists think, communicate, and do their jobs. The topics of motion and force, including the motion of fluids and Newton's law build a foundation to explore thermodynamics, energy, work, machines, waves, electricity, and magnetism.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - None

#### EARTH SCIENCE - A & B Semester A

The first three modules of Semester 1 cover Scientific Inquiry, the Structure and Composition of the Universe, and the Features of the Solar System.

Students learn the importance of scientific inquiry and how to communicate the results of scientific investigations. They then have material on the formation of the universe, including the Big Bang Theory, the motions of celestial objects, and stellar evolution. The third module covers material related to the Solar System, including features of the Sun and the planets and the movements of Earth. The second three modules of Semester 1 cover Weather, Climate, and Earth's Water Cycle. Students first learn in Module 4 about the atmosphere and clouds, as well as the factors that influence local and global climate. In Module 5 they continue by learning about weather and air masses, meteorology and storms. Module 6 then discusses the water cycle, including groundwater and ocean features, as well as water scarcity and pollution.

# Semester B

The first three modules of Semester 2 cover the physical structure of the Earth and Earth's tectonic system, including the rock cycle, tectonic activity, and mountain building. It then covers weathering and erosion and soil formation. The next material in the course then addresses the concept of systems; it addresses the Earth as a system, feedback in systems, and Earth's major nutrient cycles. The second three modules of Semester 2 cover geologic history, including the evolution of Earth's atmosphere, the geologic time scale, and the fossil record. It then goes over natural resources and the effects of human population on natural resources. The course wraps up with a discussion of human society and its interconnectedness with the Earth's environment, how science and technology work together, and the technological design process in earth science applications.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - None

# BIOLOGY - A & B Semester A

Biology A introduces students to the scientific method and the major concepts of biology from an historical and practical viewpoint. The three major themes of this course are the cell, the molecular basis of heredity, and the interdependence of organisms. Students who take this class will have a deeper appreciation for the complexities of living organisms. Life on this planet, unlike anywhere else in the observable universe, is complex and highly organized. Whether examining life on the molecular or the planetary level, it exhibits a highly organized structure that inspires awe by its genius and complexity. In the last 50 years, discoveries have launched new branches of biology that have transformed the daily routing, from conception to death. New challenges await, such as the current crisis in ecology, global warming, and the resurgence in viral disease. Biology A is presented in a multimedia format using interactive modules, labs, narrated

animation, text, and videos to present the study of life on this planet. Students work through and complete several self-check activities and quizzes for practice and participate in self- reflection. In each unit, students complete the unit exam and deliver a unit project.

# Semester B

The major concepts covered in Semester B are population dynamics and evolution. Students explore population dynamics through the study of mutualism, predation, parasitism, and competition. The theory of evolution is presented, along with the evidence and details that make evolution the backbone of modern biology. The second semester further examines the wonder of life and its mechanisms. Students work through and complete several self-check activities and quizzes for practice and participate in self-reflection. In each unit, students complete the unit exam and deliver a unit project.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None Prerequisites – Algebra 1

# **CHEMISTRY - A & B**

Students examine the basic principles and properties of matter to see its everyday uses. Topics include atomic models, and predicting chemical reactions to see how scientists can engineer them to solve problems.

# problems.

# Course Requirements

Grade Level - 10th - 12th Grade Duration - 2 Semesters Materials - Graphing Calculator Prerequisites - Algebra 1 & Geometry

# PHYSICS - A & B

### Semester A

Students begin their exploration of physics by reviewing the International System of Units (SI), scientific notation, and significant digits. They then learn to describe and analyze motion in one and two dimensions. Students learn about gravity and Newton's laws of motion before concluding the course with an examination of circular motion. Students apply mathematical concepts such as graphing and trigonometry in order to solve physics problems. Throughout the course, students apply their understanding of physics by playing roles like science museum curator and elementary teacher.

# Semester B

Physics B continues the student's exploration of mechanics while also guiding them through some other important topics of physics. Students begin by exploring simple harmonic motion, wave properties, and optics. Students then learn the basics of thermodynamics and fluids. Afterwards, the students explore the principles of electricity and magnetism. Finally, students explore the area of physics known as Modern Physics, which includes topics such as the photoelectric effect, nuclear science, and relativity. This is a trig-based course. It is assumed you know and can use trigonometry.

# **Course Requirements**

Grade Level - 11th - 12th Grade Duration - 2 Semesters Materials - Graphing Calculator Prerequisites - Algebra 1 and Geometry

#### ANATOMY AND PHYSIOLOGY - A & B Somester A

# Semester A

Whether you plan on pursuing a career in health sciences or simply looking to gain an understanding of how the human body works, you will first need to understand the relationship between anatomy and physiology. Learn how to read your body's story through understanding cell structure and their process- es, and discover the functions and purposes of the skeletal, muscular, nervous, and cardiovascular systems, as well as diseases that affect those systems.

### Semester B

Examine the form and function of even more body systems. Learn about the structure, function, and interrelation between the lymphatic, immune, respiratory, digestive, urinary, and endocrine systems. The reproductive system is also discussed along with hereditary traits and genetics. And discover the importance of accurate patient documentation as well as the technology used in the industry.

# **Course Requirements**

Grade Level - 10th - 12th Grade Duration - 2 Semesters Materials - None Prerequisites – Biology

# ENVIRONMENTAL SCIENCE A & B

# Semester A

Environmental Science A examines the relationships between organisms and the environment, including impacts of research on scientific thought and the environment by using scientific practices, evidence-based data and its display, as well understanding how data informs societal decision making.

# Semester B

Environmental Science examines the relationship between humans and the environment including the past, present and future impacts of resource utilization, identifies pollution of the air, soil and water and its sources and discusses regulations and actions that can and have been taken to mitigate harm to the Earth.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration – 2 Semesters Materials – None

# **HONORS SCIENCE**

# HONORS BIOLOGY - A & B Semester A

Students examine life at the cellular level by understanding how the scientific method is used by scientists to investigate questions and present their findings. Topics include chemical makeup and size of cells, cell structure, the flow of energy, and how traits are inherited.

### **Semester B**

Students examine life on Earth from a big picture perspective by exploring the evolution of species and the history of life on Earth. Topics include living organisms from microorganisms to plants and animals, the human body systems, ecology, and how humans interact with the environment. Historical perspectives and societal impact of biology are included in each lesson.

### **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None Prerequisites - Algebra 1

# HONORS CHEMISTRY - A & B Semester A

Students examine basic principles and properties of matter to see its everyday uses. Topics include atomic models, and predicting chemical reactions to see how scientists can engineer them to solve problems. The Honors course offers additional examples and practice.

# Semester B

This semester culminates in the ability to evaluate the ethical and social implications of chemistry-related technologies. Topics include matter, types of bonds and forces that hold atoms and molecules together, states of matter, phase changes, gas laws, solutions, thermodynamics and kinetics of chemical reactions, chemical equilibrium and electrochemistry, radiation and the difference between nuclear fission and fusion. The Honors course offers additional examples and practice.

# **Course Requirements**

Grade Level - 10th - 12th Grade Duration - 2 Semesters Materials - None Prerequisites - Algebra – Geometry

# **HONORS PHYSICS - A & B**

# Semester A

Students begin their exploration of physics by reviewing the International System of Units (SI), scientific notation, and significant digits. They then learn to describe and analyze motion in one and two dimensions. Students learn about gravity and Newton's laws of motion before concluding the course with an examination of circular motion. Students apply mathematical concepts such as graphing and trigonometry in order to solve physics problems. Throughout the course, students apply their understanding of physics by playing roles like science museum curator and elementary teacher.

# Semester B

Physics B continues the student's exploration of mechanics while also guiding them through some other important topics of physics. Students begin by exploring simple harmonic motion, wave properties, and optics. Students then learn the basics of thermodynamics and fluids. Afterwards, the students explore the principles of electricity and magnetism. Finally, students explore the area of physics known as Modern Physics, which includes topics such as the photoelectric effect, nuclear science, and relativity. This is a trig based course. It is assumed you know and can use trigonometry.

# **Course Requirements**

Grade Leve - 11th – 12th Grade Duration - 2 Semesters Materials - None Prerequisites - Algebra – Geometry

# **HISTORY**

# WORLD HISTORY - A & B Semester A

Students explore key events and historical developments from hunter-gatherer societies to the Industrial Revolution. Beginning with the analysis of prehistoric people from the Paleolithic era to the Agricultural Revolution, the course follows the rise and fall of early empires including the Roman Empire. Topics include: The Crusades, feudalism, the plague, Asian empires and trade routes, effects of the Renaissance and Protestant Reformation, and important revolutions that shaped history.

# Semester B

Students trace the developments of the last 250 years by examining the origins of modern Western imperialism and analyzing the cultural, economic, and political impacts on Africa and Asia. Topics include: the influence of the Industrial Revolution, the impact of imperialism and nationalism on World War I, how the Treaty of Versailles contributed to the rise of fascism in Europe and the start of World War II, 20th-century warfare, the Armenian Genocide, and the Holocaust.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None

# WORLD GEOGRAPHY - A & B Semester A

Students explore the five themes of geography, analyzes the earth's processes, and how the processes impact both physical and human geography. Both physical and political maps are studied to examine trends and impacts with a focus on the Americas, Central Asia, and Europe.

# Semester B

Students continue the exploration of the five themes of geography with a focus on the Middle East, Africa, and Asia. Cultural beliefs and social and political systems are examined within the context of countries, regions, and global interactions.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None

# AMERICAN HISTORY - A & B Semester A

This course covers the discovery, development, and growth of the United States. Major topics include American Indian cultures, European colonization of the Americas, and the causes and effects of the American Revolution. Geographical, economic, and political factors are explored as the key factors in the growth of the United States of America. American History is a survey of the struggle to build the United States of America from the colonial period to the beginning of the twentieth century. By means of reading, analyzing, and applying historical data, students come to appreciate the forces that shaped our history and character as an American people. Students also explore research methods and determine accurate sources of data from the past.

# Semester B

American History B begins with a study of American life before the 1929 Stock Market crash and how the Roaring Twenties influenced society in the late 19th through early 20th centuries. Students will examine the causes and consequences of the Great Depression and move on into a detailed study of World War II with an emphasis on America's role in the conflict. The course continues with an analysis of the Cold War struggle and America's rise as a superpower. The Civil Rights and Women's rights movements, pollution and the environment, and American domestic and foreign policy will be examined. This course begins with an assessment of life in the United States prior to World War I and ends with the conflicts of the new millennium. The course ends with a summary of current events and issues, including a study of the Middle East. Students look at the nation in terms of economic, social, and political trends. The experiences of the last century are summarized, including a look into the civil rights issues that have embroiled the nation in conflict. The development of the United States of America into a superpower is explored within a global context.

### **Course Requirements**

Grade Level - 10th - 12th Grade Duration - 2 Semesters Materials – None

# **AMERICAN GOVERNMENT\***

Students examine the history and philosophy of the United States government and the guiding principles of democracy. Topics include analysis of the United States Constitution, functions and duties of the three branches of government, the role of the Supreme Court, civic engagement in political process, the rights and responsibilities of citizens, government systems of the world, political parties, interest groups, and the media in shaping the government.

#### **Course Requirements**

Grade Level - 11th - 12th Grade Duration - 1 Semester Materials - None Prerequisites - American History

# **ECONOMICS\***

Students explore principles to make informed decisions about personal finance, develop a broader understanding of national and international economic decisions and policies. Topics include why economics impacts history, distribution of wealth, and quality of life for all members of society. **Course Requirements** 

# Grade Level - 11th - 12th Grade

Duration - 1 Semester Materials – None

# **HONORS HISTORY**

### HONORS WORLD HISTORY - A & B Semester A

In Honors World History A, students explore ancient civilizations in order to understand the geographic, political, economic, and social characteristics of people. By developing their understanding of the past, students can better understand the present and determine their direction for the future. In this course, students explore the first civilization in Mesopotamia; the ancient civilizations of China, Greece, and Rome; the rise of the Byzantine Empire; and the feudal system in Europe and Japan. They also learn about the Renaissance and Reformation, the Enlightenment Period, and the scientific and democratic revolutions in Europe that spread to the new nation of America. The last part of the course concentrates on the Napoleonic Era, the Industrial Revolution in England, and the rise of imperialism in Europe. In addition, historical analysis and current events are featured in the final lessons.

### Semester B

In this semester, students examine the factors leading up to World War I, the rise of nationalism, and the worldwide economic depression. The causes of War II, and the military strategies involved are also analyzed. The advances in modern warfare for both World Wars are a special focus. In addition, students learn about the struggle between the ideologies of

democracy and communism as well as the change in the balance of power after World War II in which countries fought for self-rule. An appraisal of the Cold War and the fall of the Soviet Union are included. Later lessons find students exploring the roots of terrorism and the conflicts in the Middle East, Eastern Europe, and Asia. The final unit of the course centers on the new global economy, advances in science and technology, and current environmental issues. Students assess primary and secondary source materials in depth. Projects and class predict discussions challenge students to outcomes, draw conclusions, and make choices based upon critical thinking.

### **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - None

## HONORS AMERICAN HISTORY - A & B Semester A

Honors American History A helps students learn the story of the settling of North America by Europeans in the 1600s. A prevailing theme of the course is that America accomplished tasks that no other country had undertaken before. America broke away from Europe, established its own country with a constitution that has given freedom to more people than any other country in the world, and settled a country by putting that Constitution into practice. The course ends with a study of America's emergence as a world power at the beginning of the 20th Century. Students will encounter primary and secondary source document investigations, biographies of key individuals, political cartoons, map studies, and period literature.

### Semester B

Honors American History B begins in the 1920s Jazz Age and ends in the 21st Century. Students will examine economic factors that lead to the Great Depression and World War II. The West's involvement in the Cold War, as well as the fall of the Soviet Union, will be covered in detail. America's rise as a world power is featured. The final unit of the course includes a study of the environment, modern presidential foreign and domestic policies, and the Middle East.

# **Course Requirements**

Grade Level - 10th - 12th Grade Duration - 2 Semesters Materials – None

### HONORS AMERICAN GOVERNMENT\*

Students examine early political ideas that led to the development of the United States government, and the various smaller governments that operate within the United States provide insights of local, state, and national levels of government. By examining how the United States interacts with the world regarding trade, immigration, and global conflicts, students discover how civic engagement influences the government.

### **Course Requirements**

Grade Level - 11th - 12th Grade Duration - 1 Semester Materials - None Prerequisites - American History

# WORLD LANGUAGES

# HS SPANISH 1 - A & B

Students explore how to discuss school subjects, professions, and daily routines, as well as illness and injury, shopping, and money through reading, writing, listening, and speaking. The course also explores cultures of some Spanish-speaking countries, such as Venezuela, Chile, Ecuador, Guatemala, and Cuba.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - None

### HS SPANISH 2 - A & B

Spanish 2 continues to build reading, writing, listening, and speaking skills in order to discuss transportation, extracurricular interests, professions, cuisine, clothing, health, and technology. Topics included: present, past, future, and conditional tenses, present subjunctive mood, explores cultures of some Spanish-speaking countries, such as the Dominican Republic, Equatorial Guinea, Honduras, Uruguay, and Panama.

### **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None Prerequisites - Spanish 1

### HS SPANISH 3 - A & B

Spanish 3 builds reading and writing of informative, argumentative, and descriptive texts, listening, and speaking skills using the indicative subjunctive, and imperative moods. The course also explores significant historical events of some Spanish-speaking countries, as well as cultural products, practices, and philosophies. Students continue acquiring the Spanish language through reading poems and short stories by notable Spanish-language authors. The continuation of writing, listening, and speaking includes exploring behavioral norms in different Spanish-speaking cultures in order to discuss these topics in the indicative and subjunctive moods in a variety of tenses.

## **Course Requirements**

Grade Level - 10th - 12th Grade Duration - 2 Semesters Materials - None Prerequisites - Spanish 2 or equivalent

# HS FRENCH 1 - A & B

French 1 focuses on developing listening skills by repeated exposure to the spoken language. Speaking skills are encouraged through recommended assignments using voice tools. Reading and writing skills, as well as language structures, are practiced through meaningful, real-life contexts. The use of technology enhances and reinforces authentic language development and fosters cultural understandings through exposure to native speakers and their daily routines.

# **Course Requirements**

Grade Level - 8th - 12th Grade Duration - 2 Semesters Materials – None

#### HS FRENCH 2 - A & B Semester A

Semester A focuses on the continuation and enhancement of language skills presented in Level 1. Vocabulary and grammar structures are revisited and expanded to provide students an opportunity to move towards an intermediate comprehension level. Speaking and listening skills are enhanced through recommended real-life voice activities. Listening skills are honed through online dialogues. Reading and writing skills are developed through access to completion of meaningful activities, reading of culturally related articles of interest and responding to reading in the target language. The use of technology enhances and reinforces authentic language development and fosters cultural understandings through exposure to native speakers and their daily routines.

### Semester B

Semester B continues the enhancement of language skills. Vocabulary and grammar structures are

revisited and expanded as students explore other French-speaking areas. Speaking and listening skills are enhanced through recommended real-life voice activities. Listening skills are honed through online dialogues. Reading and writing skills are developed through access to completion of meaningful activities related to travel, to the Olympics, to natural disasters, and to the space program. Reading of culturally related articles of interest and responding to reading in the target language, along with the use of technology, reinforces authentic language development and fosters cultural understandings through exposure to native speakers and their daily routines.

## **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters

Materials - Semester B Only | Joie De lire! Intermediate Reader Level 2. July 19, 2002 By Rinehart and Winston Holt | ISBN: 0030656273 Prerequisites - French 1 or equivalent

# HS FRENCH 3 - A & B

Students deepen their understanding of French 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 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.

# **Course Requirements**

Grade Level - 10th - 12th GRade Duration - 2 Semesters Materials - None Prerequisites - French 2 or equivalent

# HS GERMAN 1 - A & B Semester A

The German 1 course is an introduction to basic comprehension and communication in German. It coordinates the study of language with culture through the use of video, audio and media production. This course assumes no prior knowledge of the German language. It introduces the fundamentals of conversational and grammatical patterns of the German language with presentations to present the material. Students who complete the course successfully will begin to develop a functional competency in the four primary language areas: speaking, reading, listening and writing, while establishing a solid grammatical base and exploration into German culture.

# Semester B

The second semester course will expand on the knowledge gained from German 1A and further develop their skills in pronunciation, grammar skills, grammar structures and vocabulary. Oral practice (via Voice Tools), homework assignments, games, songs, watching videos, quizzes, tests, projects and other activities such as writing wikis and journal entries, will be emphasized to accomplish this goal. The different cultures of the German-speaking world are emphasized through readings, videos and other activities. Taking the time to learn another language is a mind-expanding activity that can open up a world of opportunities and advantages.

# **Course Requirements**

Grade Level - 8th - 12th Grade Duration - 2 Semesters Materials – None

# HS GERMAN 2 - A & B

# Semester A

In this course, students build on grammar and language skills that they acquired during their G1A and G1B courses. While reviewing basic grammar skills, (present and past tenses), students learn and study stem-changing verb conjugation and explore cultural themes regarding current events, famous German people, music and famous festivals.

# Semester B

In the second semester course, students increase their proficiency in being able to communicate by forming more complex German sentences in a variety of tenses using all four cases (Nominative, Accusative, Dative and Genitive). The variety of topics increases also, from exploring different careers to discussing relationships. Cultural themes are entwined throughout this course related to going shopping, to going to the zoo and travel throughout the German-speaking world.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - None Prerequisites- German 1 or equivalent

# **AP LANGUAGE ARTS**

# AP ENGLISH LANGUAGE & COMPOSITION - A & B

This course provides high school students with college-level instruction in analyzing and writing various texts. The course covers topics in language and rhetoric as well as expository and persuasive writing. Students become skilled readers of prose written in various periods, disciplines, and rhetorical contexts. This course fulfills one required English credit for high school graduation.

# **Course Requirements**

\*Additional costs may apply Grade Level - 11th - 12th Grade Duration - 2 Semesters \*Reading list detailed in Appendix A. Prerequisites - Honors English 11 or Equivalent

# **AP MATH**

# AP CALCULUS AB - A & B

Study limits, continuity, differentiation, integration, differential equations, and the applications of derivatives and integrals. This course fulfills one required math credit for high school graduation.

# **Course Requirements**

\*Additional costs may apply Grade Level - 11th - 12th Grade Duration - 2 Semesters Materials - Study Forge; calculator Prerequisites – Pre-Calculus

# AP CALCULUS BC - A & B

Comparable to college and university calculus, this course will help prepare you for the Calculus BC Advanced Placement exam. Study limits, continuity, differentiation, integration, differential equations, and the applications of derivatives and integrals, parametric and polar equations, and infinite sequences and series. This course fulfills one required math credit for high school graduation.

# **Course Requirements**

\*Additional costs may apply Grade Level - 11th - 12th Grade Duration - 2 Semesters Materials – Study Forge; calculator Prerequisites - Pre-calculus

# **AP SCIENCE**

# AP BIOLOGY - A & B

This course provides a foundation for developing an understanding of biological concepts through scientific inquiry, investigations, interactive experiences, higher-order thinking, real-world applications, writing analytical essays, statistical analysis, interpreting and collecting data. This course fulfills one required science credit for high school graduation.

# **Course Requirements**

\*Additional costs may apply Grade Level - 11th - 12th Grade

Duration - 2 Semesters

Materials - Campbell Biology In Focus 3rd Edition AP Edition for Advanced Placement Author(s): Urry, Lisa | Cain, Michael | Wasserman, Steven | Minorsky, Peter Textbook ISBN-13: 9780135214763, student provided lab materials

Prerequisites - Algebra 1 - Geometry

# **AP CHEMISTRY - A & B**

This course is taught at the college level and is designed to prepare students to take the Advanced Placement Examination. College-level textbooks are used. Topics include an introduction to chemistry as the study of change, gases, thermochemistry, quantum theory, chemical bonding, crystals, phase changes, solutions, chemical kinetics, chemical equilibrium, acids and bases, entropy, electrochemistry, nuclear chemistry, metallurgy, alkali and alkaline metals, non-metallic metals, transition metals, organic chemistry, and synthetic and natural organic polymers.

# **Course Requirements**

\*Additional costs may apply Grade Level - 11th - 12th Grade Duration - 2 Semesters Materials - AP Chemistry – Raymond Chang and Jason Overby – 13th Edition, 2019, ISBN-13: 9781259911156, ISBN-10: 1259911152 Princeton Review AP Chemistry Premium Prep, 2022, ISBN-10: 0525570578, ISBN-13: 978-0525570578 Lab Materials - Please note that iCademy has access to virtual labs, so the physical labs are optional: Advanced Microchem Kit (AP Chemistry Lab Kit by Quality Science Labs) Prerequisites - Chemistry, Algebra & Geometry

# AP PHYSICS - A & B Semester A

Students explore principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. The course is based on six Big Ideas, which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world.

# Semester B

Students establish lines of evidence and use them to develop and refine testable explanations and predictions of natural phenomena. Focusing on these disciplinary practices enables teachers to use the principles of scientific inquiry to promote a more engaging and rigorous experience for AP Physics students.

# **Course Requirements**

\*Additional costs may apply Grade Level – 11th – 12th Grade Duration – 2 Semesters Materials – Graphing Calculator Text: College Physics - Urone, P. and Hinrichs, R. College Physics. Houston; OpenStax College Physics.Digital: ISBN-10:1947172018, ISBN-13:9781947172012; Princeton Review AP Physics 1 Prep, 2022, ISBN-10:0525570705, ISBN-13:978-0525570707

# **AP HISTORY**

# **AP GOVERNMENT & POLITICS\***

Students investigate key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study the structure of the Constitution throughout the course, as well as its implications for the functioning of government today. Other foundational documents, landmark Supreme Court cases, and opportunities for research and civic action are key elements in this rich course that prepares students to be informed and active participants in U.S. society.

# **Course Requirements**

\*Additional costs may apply Grade Level - 11th - 12th Grade Duration – 1 Semester Materials - Ginsberg, Benjamin, Theodore J. Lowi, Margaret Weir, Caroline J. Tolbert, and Andrea L. Campbell. We the People: An Introduction to American Politics. 12th edition. New York, NY: W.W. Norton, 2018. Prerequisites - American History

# AP U.S. HISTORY - A & B

Within AP U.S. History, students will develop and use historical thinking skills (chronological reasoning, comparison and contextualization, crafting historical arguments from historical evidence, and historical interpretation and synthesis) to examine the history of the United States from 1491 to the present. Students will learn through active participation as they analyze sources and collaborate to gain a conceptual understanding of U.S. history. The AP U.S. History course is structured around nine time periods outlined within the College Board Advanced Placement United States History Framework. Each time period is divided into key concepts meant to contextualize history and show continuity and well as change over time. The intention is for students to explore history, establishing economic, political, and social patterns.

# **Course Requirements**

\*Additional costs may apply Grade Level - 11th - 12th Grade Duration - 2 Semesters Materials - Give Me Liberty- AP 6th Ed.-Eric Foner ISBN: 978-0-393-44123-9 Prerequisites: U.S. History

# AP WORLD HISTORY - A & B Semester A

The first semester of AP World History Modern delves into the history of mankind. Looking back to the prehistoric times, students will develop the connections between the early river valleys, the beginnings of civilizations, and governments. Through this semester, students will be introduced to concepts that will be placed on the AP examination and will also be given multiple opportunities to practice skills necessary for the AP exam. This specific time will start from the First Agricultural Revolution to the Age of Exploration.

# Semester B

The second semester of AP World History Modern is a continuation of semester one, starting with how Europe evolved from the colonies being brought into the New World. This course will continue to make connections between nations and look at the big picture concepts of the world until present day. This semester will also spend one time preparing specifically for the AP exam. Through review materials and practicing skills needed for the AP exam, students will work on being prepared for the exam.

# **Course Requirements**

\*Additional costs may apply Grade Level - 10th - 12th Grade Duration - 2 Semesters Materials - Bentley, Traditions & Encounters: A Global Perspective on the Past. UPDATED AP Edition © 2017, 6e, Student Edition ISBN-13: 978-0076681280 ISBN-10: 0076681289 AP World History Modern Prep Plus 2020 & 2021 ISBN-13: 978-1506248127 ISBN-10: 1506248128 Prerequisites - World History

# **AP WORLD LANGUAGES**

# **AP SPANISH LANGUAGE AND CULTURE - A & B**

This 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.

# **Course Requirements**

\*Additional costs may apply Grade Level - 11th - 12th Grade Duration - 2 Semesters Materials - Princeton Review AP Spanish Language & Culture Prep, 2023 ISBN-13: 978-0593450888, ISBN-10: 0593450884 Prerequisites – Spanish 3

# **ELECTIVES**

# **ART HISTORY MODERN\***

Students explore art of the late 1700s to modernity from Western movements in artworks and architecture to China, Japan, Africa, Oceania, Southeast Asia, and India. Given the subject matter, the course is extensively visual. Please also be aware that this course includes depictions of nudity, as many art movements celebrated the human form.

# **Course Requirements**

Grade Level - 9th – 12th Grade Duration - 1 Semester Materials – None

# **ART HISTORY ORIGINS\***

Students explore the art of the prehistoric, ancient, medieval, Renaissance and Rococo periods to understand how to read and interpret art. \*Given the subject matter, the course is extensively visual. Please also be aware that this course includes depictions of nudity, as many art movements celebrated the human form. Many important and influential works of art include nudity, and it would be nearly impossible to teach art history without including them.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# **ASTRONOMY\***

The universe is truly the last unknown frontier and offers more questions than answers. Why do stars twinkle? Is it possible to fall into a black hole? Will the sun ever stop shining? Since humans first glimpsed into the vastness of the night sky, we have been fascinated with the celestial world of planets and stars. Astronomy: Exploring the Universe introduces you to the engaging world of astronomy. By using online tools, students will examine such topics as the solar system, space exploration, and the Milky Way and other galaxies. The course also explores the history and evolution of astronomy including those basic scientific laws of motion and gravity that have guided astronomers as they made their incredible discoveries of the universe.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# **CREATIVE WRITING\***

Literature is an important form of art that allows us to give voice to our emotions, create imaginary worlds, express ideas, and escape the confines of reality. Explore the writing process and find inspiration to build a story of your own, and learn literary techniques to create hybrid forms of poetry and prose. Let's turn your creative thoughts and ideas into pieces of creative writing.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# EARLY CHILDHOOD - A & B Semester A

Are you curious to see what it takes to educate and nurture early learners? Use your curiosity to explore the fundamentals of childcare, like nutrition and safety, but also the complex relationships caregivers have with parents and their children. Examine the various life stages of child development and the best educational practices to enrich their minds while thinking about a possible future as a childcare provider!

# Semester B

Discover the joys of providing exceptional childcare and helping to develop future generations. Learn the importance of play and use it to build engaging educational activities that build literacy and math skills through each stage of childhood and special need. Use this knowledge to develop your professional skills well suited to a career in childcare.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None

# **FINANCIAL MATH\***

Financial Math investigates how to solve real-life problems, analyze current financial issues of taxes, loans, car leases, mortgages, and insurance. Mathematical processes are used to study patterns and analyze data, algebraic formulas, graphs, and amortization modeling.

### **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# LIFE SKILLS\*

What do you want out of life? How do you achieve your dreams for the future? These can be difficult questions to answer, but they don't have to be with the right tools. Learn more about yourself and prepare for the future through goal setting, decision making, surviving college and career, and how to become a valuable contributing member of society. It's your life; make it count!

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# **MARINE SCIENCE\***

Have you ever wondered about the secrets of the deep and the creatures below the ocean's surface? It is truly a new frontier of discovery. Begin to better understand the aquatic cycles, structures, and processes that generate and sustain life in the sea. You'll use scientific inquiry, research, and problem-solving to conduct various scientific procedures and become a more capable marine scientist.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# **MUSIC APPRECIATION\***

Students will gain a thorough understanding of music by studying the elements of music, musical instruments, and music history, as well as music advocacy. Students will be introduced to the orchestra and composers from around the world. They will be required to be a composer, performer, instrument inventor, and advocate.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials - None

# PALEONTOLOGY\*

From Godzilla to Jurassic Park, dinosaurs continue to captivate us. In this course, students will learn about the fascinating creatures both large and small that roamed the earth before modern man. Watch interesting videos from experts at The Royal Tyrrell Museum, a leading paleontology research facility, and discover how the field of paleontology continues to provide amazing insight into early life on earth.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

## PSYCHOLOGY - A & B Semester A

This semester explores human behavior, interaction and the progressive development of individuals. Topics include major theories and orientations of psychology, psychological methodology, human growth and development, individual variation and personality, psychobiology, as well as sensation and perception.

# Semester B

This semester explores human social interactions, psychological therapies, and careers in the field. Topics include psychological perspectives, positive relationships, social and cultural

diversity, language structures, memory and cognition, psychological testing, statistical research, stress/coping strategies, and mental health.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – None

# SOCIOLOGY\*

Human beings are complex creatures, and when we interact and begin to form relationships and societies, things become even more complicated. Are we more likely to act differently in a group than we will when we're alone? How do we learn how to be "human"? Examine answers to these questions and many more as you explore culture, group behavior, and societal institutions and how they affect human behavior.

### **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials - None

### **THEATER, CINEMA & FILM PRODUCTION\***

Lights! Camera! Action! Theater and cinema are both forms of art that tell a story. Let's explore the enchanting world of live theater and its fascinating relationship to the silver screen. Explore the different genres of both and how to develop the script for stage and film. Then dive into how to bring the script to life with acting and directing. If you have a passion for the art of film and stage, let's bring your creativity to life!

### **Course Requirements**

Grade Level - 9th - 12th Grade

**Duration - 1 Semester** 

Materials - Access to Singing in the Rain, Wizard of Oz, Casablanca

# **CAREER ELECTIVES**

# AGRISCIENCE\*

How can we make our food more nutritious? Can plants really communicate with each other? These are just two of the questions tackled in Introduction to Agriscience. From studying the secrets in corn roots to examining how to increase our food supply, this course examines how agriscientists are at the forefront of improving agriculture, food production, and the conservation of natural resources. Students will learn about the innovative ways that science and technology are put to beneficial use in the field of agriculture. They will also learn more about some of the controversies that surround agricultural practices as nations strive to provide their people with a more abundant and healthy food supply.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# **BUSINESS LAW\***

Whether you plan on starting your own business or being in charge of one, it is crucial you understand how to keep the company compliant. Explore what it means to run an ethical business, how to keep intellectual property, technology, and e-commerce safe and protected, understand insurance and taxes, and how to have a healthy workplace environment.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# **COMPUTER BASICS HS\***

In this course students will learn how to use productivity and collaboration tools, such as G Suite by Google Cloud to create word processing documents, spreadsheets, surveys and forms such as personal budgets and invitations.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# **CRIMINOLOGY\***

Why do certain people commit horrible acts? Can we ever begin to understand their reasoning and motivation? Perhaps. The mental state of a criminal can be affected by many different aspects of life: psychological, biological, sociological, all of which have different perspectives and influences. Investigate not only how these variables affect the criminal mind but also how crimes are investigated and handled in the criminal justice system.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials - None

#### CULINARY ARTS - A & B Semester A

Thinking of a career in the foodservice industry or looking to develop your culinary skills? Explore basic cooking and knife skills while preparing you for entry into the culinary world. Discover the history of food culture, food service, and global cuisines while learning about food science principles and preservation. Prepare for your future by building the professional, communication, leadership, and teamwork skills that are crucial to a career in the culinary arts.

# Semester B

Did you know that baking is considered a science? Discover how to elevate your culinary skills through the creation of stocks, soups, sauces, and learn baking techniques. Examine sustainable food practices and the benefits of nutrition while maintaining taste, plating, and presentation to truly wow your guests. Explore careers in the culinary arts for ways to channel your newfound passion!

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials – cooking vessels and materials, plus food

# DIGITAL MEDIA FUNDAMENTALS - A & B

Discover your talent for building digital media applications using text, graphics, animations, sounds, videos, and more! Learn about the elements that make impressive media, such as typography, color theory, design, and manipulation. Explore careers to apply your digital media skills and find your place in this fast-paced and exciting field!

# **Course Requirements**

Grade Level - 9th - 12th Grade

Duration – 2 Semesters

Materials - Vecteezy account, Powtoon account, Canva account GIMP or Adobe Photoshop; Garage-Band (Mac) or Audacity (any platform), An account with Wix.com, An account with Canva (or other image creation software)

# **DIGITAL MEDIA WEB DESIGN II\***

Did you know that you are consuming digital media every time you open an app or use your computer or tablet? Digital media may be a webpage, video, image, podcast, form, or more. Explore how you can develop webpages that embed different media and interactivity for excellent user experience through programming languages such as HTML and CSS. Examine trends and opportunities, education requirements, student organizations, and industry certification options. It's your turn to start designing websites and experiences for digital media consumers.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration – 1 Semester Prerequisites - Digital Media Fundamentals

# **DIGITAL PHOTOGRAPHY - A & B**

### Semester A

Have you wondered how professional photographers manage to capture that perfect image? Gain a better understanding of photography by exploring camera functions and the elements of composition while putting theory into practice by taking your own spectacular shots! Learn how to display your work for exhibitions and develop skills important for a career as a photographer.

# Semester B

Let's further develop your photography skills by learning more professional tips, tricks, and techniques to elevate your images. Explore various photographic styles, themes, genres, and artistic approaches. Learn more about photojournalism and how to bring your photos to life, and using this knowledge, build a

portfolio of your work to pursue a career in this field! Course Requirements

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - Digital or Smartphone camera

# **ENTREPRENEURSHIP\***

Starting a business is more than just having a good idea. Successful entrepreneurs know how to use and apply fundamental business concepts to turn their ideas into thriving businesses. Explore topics such as identifying the best business structure, business functions and operations, finance, business laws, regulations, and more! If you have ever dreamed of making a business idea a reality, take the time to establish a solid foundation of business skills to make your business dreams come true! Course Requirements Grade Level - 9th - 12th Grade Duration – 1 Semester Materials - MS Office

# **FORENSICS\***

Fingerprints. Blood spatter. DNA analysis. Law enforcement is increasingly making use of the techniques and knowledge from the sciences to better understand the crimes that are committed and to catch those individuals responsible for the crimes. Explore techniques and practices used by forensic scientists during a crime scene investigation (CSI). Starting with how clues and data are recorded and preserved, you'll follow evidence trails until the CSI goes to trial in the criminal justice system, examining how various elements of the crime scene are analyzed and processed.

# Course Requirements

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# **HEALTH SCIENCE: NURSING\***

The demand for nurses has never been higher! Learn what it takes to become a nurse, pursue a career, and understand the practice of nursing and the healthcare system. With a strong focus on patient care, you'll explore safety, communication and ethics, relationship building, and how to develop wellness strategies for your patients. From emergency to rehabilitative care, to advances and challenges in the healthcare industry, discover how you can launch a fulfilling career providing care to others.

### **Course Requirements**

Grade Level - 10th - 12th Grade Duration - 1 Semester Materials – First Aid Kit

# JOURNALISM\*

Does your curiosity lead you to the heart of the matter? Channel this curiosity into developing strong writing, critical thinking, and research skills to perform inter- views and write influential pieces, such as articles and blog posts. Learn about the evolution of journalism and its ethics, bias, and career directions to forge your path in this field.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# LAW & ORDER\*

Imagine if there were no laws and people could do anything they wanted. Every society needs some form of regulation to ensure peace in our daily lives and in the broader areas of business, family disputes, traffic violations, and the protection of children. Explore the importance of laws and how their application affects us as individuals and communities. Through understanding the court system and how laws are actually enacted, you'll learn to appreciate the larger legal process and how it safeguards us all.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# **NUTRITION AND WELLNESS\***

Keeping our physical body healthy and happy is just one of the many challenges we face, and yet, many of us don't know how to achieve it best. In this course, you'll explore positive decisions around diet and food preparation to pursue a healthy, informed lifestyle. Making sure you know how to locate, buy, and prepare fresh, delicious food will make you and your body feel amazing.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# SPORTS AND ENTERTAINMENT MARKETING\*

The world of sports and entertainment is never boring. This field offers careers that combine entertainment with traditional marketing, but with a whole lot more glamour. Explore basic marketing principles while delving deeper into the sports and entertainment industry. Learn how professional athletes, sports teams, and famous entertainers are marketed as commodities and how the savvy people who handle these deals can become very successful.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials - None

# **VETERINARY SCIENCE\***

Whether you want to step into the wild side of veterinary medicine or just take care of loveable dogs and cats, explore how to care for domestic, farm, and wild animals, diagnose their common diseases and ailments, and learn about different veterinary treatments. If you have always been drawn to the world of our furry, scaly, and feathered friends, this is the course for you!

## **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 1 Semester Materials – None

# HEALTH & P.E.

# HEALTH - A & B Semester A

In this course, students acquire the knowledge and skills they need to lead a healthy life. Semester A focuses on the impact of personal decisions on the student's own health. Students learn how to find, evaluate, and use reliable information related to a variety of health topics. They also study the basic science behind nutrition, exercise, stress, and psychology, and examine how these factors affect a person's overall health. Each lesson in the course guides students in applying what they have learned in the lesson to their own lives and choices—and gives them a chance to discuss the topic with peers and instructors.

# Semester B

Semester B focuses on the developmental aspects of being human and healthy. Students learn about some of the more dramatic changes that the human body experiences from birth to death. They explore topics related to aging and sexuality and identify ways to remain healthy and safe throughout life's major events and challenges. As in Semester A, this part of the course emphasizes what students can do to improve or maintain their own health and encourages them to be a positive influence on family and friends. Each lesson helps identify ways that students might use what they have learned in the lesson in their own lives. As in semester A, students discuss lesson topics with peers and/or an instructor.

### Course Requirements

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials - None

# PHYSICAL EDUCATION - A & B

Physical Education encompasses learning how to live and maintain a healthy lifestyle. This course covers physical fitness, why it is important, how to have a healthy attitude, and how to stick with a healthy game plan. In this ever-changing world, physical fitness becomes more important and more difficult to find the time for. This course allows the student to discover how to make physical fitness not only a part of their daily life, but also see that it is attainable. This course leads the student to discover healthy behaviors and sets the tone for physical fitness as well as healthy exercise. PE will examine the emotional, physical, and scientific factors that influence physical performance. This course is designed for anyone, ranging from the beginner to advanced abilities.

# **Course Requirements**

Grade Level - 9th - 12th Grade Duration - 2 Semesters Materials -None

# **COURSE LIST HIGH SCHOOL**

# **ENGLISH**

ENGLISH 9 - A & B ENGLISH 10 - A & B ENGLISH 11 - A & B ENGLISH 12 - A & B HONORS ENGLISH 9- A & B HONORS ENGLISH 10- A & B HONORS ENGLISH 11- A & B HONORS ENGLISH 12- A & B

# **MATHEMATICS**

ALGEBRA 1 - A & B ALGEBRA 2 - A & B GEOMETRY - A & B INTEGRATED MATH 1 - A & B INTEGRATED MATH 2 - A & B PRE - CALCULUS - A & B HONORS ALGEBRA 1 - A & B HONORS ALGEBRA 2 - A & B HONORS GEOMETRY - A & B

# **SCIENCE**

ANATOMY AND PHYSIOLOGY - A & B BIOLOGY - A & B CHEMISTRY - A & B EARTH SCIENCE - A & B ENVIRONMENTAL SCIENCE A & B PHYSICAL SCIENCE - A & B PHYSICS - A & B HONORS BIOLOGY - A & B HONORS CHEMISTRY - A & B HONORS PHYSICS - A & B

# **SOCIAL STUDIES**

AMERICAN GOVERNMENT\* AMERICAN HISTORY - A & B ECONOMICS\* WORLD GEOGRAPHY - A & B WORLD HISTORY - A & B HONORS AMERICAN GOVERNMENT\* HONORS AMERICAN HISTORY - A & B HONORS WORLD HISTORY - A & B

# WORLD LANGUAGE

HS FRENCH 1 - A & B HS FRENCH 2 - A & B HS FRENCH 3 - A & B HS GERMAN 1 - A & B HS GERMAN 2 - A & B HS - SPANISH 1 - A & B HS - SPANISH 2- A & B HS - SPANISH 2- A & B

# **ELECTIVES**

9-12

ART HISTORY MODERN\* ART HISTORY ORIGINS\* ASTRONOMY\* CREATIVE WRITING\* EARLY CHILDHOOD - A & B FINANCIAL MATH\* LIFE SKILLS\* MARINE SCIENCE\* MUSIC APPRECIATION\* PALEONTOLOGY\* PSYCHOLOGY - A & B SOCIOLOGY\* THEATER, CINEMA & FILM PRODUCTION\*

# **CAREER ELECTIVES**

AGRISCIENCE\* **BUSINESS LAW\* COMPUTER BASICS HS\*** CRIMINOLOGY\* CULINARY ARTS - A & B **DIGITAL MEDIA FUNDAMENTALS - A & B DIGITAL MEDIA WEB DESIGN II\* DIGITAL PHOTOGRAPHY - A & B ENTREPRENEURSHIP\*** FORENSICS\* HEALTH SCIENCE: NURSING \* JOURNALISM\* LAW AND ORDER \* NUTRITION AND WELLNESS \* SPORTS AND ENTERTAINMENT MARKETING \* **VETERINARY SCIENCE \*** 

# HEALTH & P.E.

HS HEALTH - A & B PHYSICAL EDUCATION - A & B

# KHDA COURSES (UAE STUDENTS ONLY)

MORAL, SOCIAL & CULTURAL STUDIES NON-NATIVE/ NATIVE ISLAMIC STUDIES NON-NATIVE/ NATIVE ARABIC

# NOTE ABOUT COURSE SELECTION AND AP COURSES:

\*All courses with an "A&B" in the title are two semester courses. Courses with an asterisk (\*) are one semester courses. Please check the pre-requisites prior to selecting courses and electives.



# AP ENGLISH LANGUAGE & COMPOSITION SEM A - (one of the following texts)

Zen in the Art of Writing by Ray Bradbury On Writing Well by William Zinsser

# SEM B - See the lesson titled The Memoir for an overview of text choices and choose one of the following:

- \*\*Narrative of the Life of Frederick Douglass by Frederick Douglass
- \*A Work in Progress: A Memoir by Connor Franta
- The Reason I Jump: The Inner Voice of a Thirteen-Year-Old Boy with Autism by Naoki Higashida
- \*The Color of Water: A Black Man's Tribute to His White Mother by James McBride
- \*The Glass Castle: A Memoir by Jeannette Walls
- \*I am Malala: The Girl Who Stood Up for Education and Was Shot by the Taliban by Malala Yousafza
- \*I Know Why the Caged Bird Sings by Maya Angelou
- Dust Tracks on a Road by Zora Neale Hurston
- \*\*\*Incidents in the Life of a Slave Girl by Harriet Jacobs
- \*\*The Story of My Life by Helen Keller

# See the Checklist lesson for an overview of text choices and choose one of the following:

- Pilgrim at Tinker Creek by Annie Dillard
- \*Nickel and Dimed: On (Not) Getting By in America by Barbara Ehrenreich
- Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, A Man Who Would Cure the World by Tracy Kidder
- \*The Devil in the White City: Murder, Magic, and Madness at the Fair that Changed America by Erik Larson
- \*\*Up from Slavery: An Autobiography by Booker T. Washington
- Into Thin Air by Jon Krakauer
- The Immortal Life of Henrietta Lacks by Rebecca
  Skloot
- · Warmth of Other Suns by Isabell Wilkerson
- Bury My Heart At Wounded Knee by Dee Brown
- The Boys in the Boat by Daniel James Brown

\*All works have rhetorical merit for the AP English student; texts marked with asterisks deal with mature subject matter or contain adult language or situations. If this is a concern for you or your family, please choose a different text from the list. \*\*This text can be read online

\*\*\*Mature subject matter & available online

# AP BIOLOGY A & B CAMPBELL BIOLOGY IN FOCUS 3RD EDITION AP

Edition for Advanced Placement Author(s): Urry, Lisa | Cain, Michael | Wasserman, Steven | Minorsky, Peter Textbook ISBN-13: 9780135214763, student provided lab materials

# **AP PHYSICS - A & B**

Text: College Physics - Urone, P. and Hinrichs, R. College Physics. Houston. OpenStax College Physics - Digital: ISBN-10:1947172018, ISBN-13:9781947172012 Princeton Review AP Physics 1 Prep, 2022 -ISBN-10:0525570705, ISBN-13:978-0525570707

# **AP U.S. HISTORY A & B**

Give Me Liberty- AP 6th Ed.-Eric Foner ISBN: 978-0-393-44123-9

# **AP SPANISH LANGUAGE AND CULTURE A & B**

Princeton Review AP Spanish Language & Culture Prep, 2023 ISBN-13: 978-0593450888 ISBN-10: 0593450884

# **AP CHEMISTRY A & B**

AP Chemistry – Raymond Chang and Jason Overby – 13th Edition, 2019 ISBN-13: 9781259911156, ISBN-10: 1259911152 Princeton Review AP Chemistry Premium Prep, 2022. ISBN-10: 0525570578, ISBN-13: 978-0525570578 Cracking the AP Chemistry Exam, 2020 Edition ISBN-13: 978-0525568186 ISBN-10: 0525568182

# **AP GOVERNMENT & POLITICS A & B**

Ginsberg, Benjamin, Theodore J. Lowi, Margaret Weir, Caroline J. Tolbert, and Andrea L. Campbell. We the People: An Introduction to American Politics. 12th edition. New York, NY: W.W. Norton, 2018.

# **AP WORLD HISTORY A & B**

Bentley, Traditions & Encounters: A Global Perspective on the Past. UPDATED AP Edition © 2017, 6e, Student Edition ISBN-13: 978-0076681280 ISBN-10: 0076681289 AP World History Modern Prep Plus 2020 & 2021 ISBN-13: 978-1506248127 ISBN-10: 1506248128

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