2019 MIDDLE SCHOOL SUMMER SESSION COURSE DESCRIPTIONS

Mathematics Courses

Note: Register for the mathematics course your student will be enrolled in for the 2019-2020 school year.

Prep for Integrated Math I

This course will focus on the essential math strategies necessary for student success in IM I. Topics will include reinforcement of number sense with whole numbers, decimals and fractions (addition, subtraction, multiplication, and division). Other topics will include order of operations and solving one-step algebraic equations. These essential topics are derived from the Millard math frameworks for IM I.

Prep for Integrated Math II

This course will focus on the essential math strategies necessary for success in IM II. Students will study operations of fractions, decimals and integers through the study of algebraic equations and expressions. In addition, students will study two step equations and inequalities, and the application of percent, ratios and proportions. These topics are essential pieces derived from the Millard math frameworks for IM II.
Prerequisite: Qualifying test scores on math placement exams or Integrated Math I

Prep for Integrated Math III

This course will focus on the essential math strategies necessary for success in IM III. Concepts include integers, fractions, multi-step equations, problem solving, exponents, square roots, and 2- and 3-dimensional geometry. This course consolidates the arithmetic of previous grades and prepares students for Pre-Algebra concepts. These topics are essential pieces derived from the Millard math frameworks for IM III.
Prerequisite: Qualifying test scores on math placement exams or Integrated Math II

6th Grade Prep for Integrated Math III

This will be a fast-paced course reviewing the math skills normally taught in sixth and seventh grade preparing incoming 6th graders going into IM III. Concepts include integers, fractions, multi-step equations, problem solving, exponents, square roots, and 2- and 3-dimensional geometry. This course consolidates the arithmetic of previous grades and prepares students for Pre-Algebra concepts.
Prerequisite: Qualifying test scores on math placement exams

Reading Courses

Note: Register for the grade your student will be entering next year (6^{th}, 7^{th}, or 8^{th})

Read-Write – skills for 6^{th} grade

This course will focus on those strategies that will enable a student to be successful when reading an informational text such as a science or social studies book. Topics will include vocabulary development/contextual understanding; pre-reading strategies such as, but not limited to, K-W-L and SQ3R; research strategies; concept/story mapping; and graphic organizers.

This course will also build skills in the six analytical traits of writing--ideas and content, organization, voice, word choice, sentence fluency, and conventions. Pre-writing, editing, and revision will be used to produce at least two final writing products in one of these three modes: expository, narrative, or persuasive. Topics will be student choice.

Read-Write – skills for 7th grade

This course will focus on those strategies that will enable a student to be successful when reading an informational text such as a science or social studies book. Topics will include vocabulary development/contextual understanding; pre-reading strategies such as, but not limited to, K-W-L and SQ3R; research strategies; concept/story mapping; and graphic organizers.

This course will also build skills in the six analytical traits of writing--ideas and content, organization, voice, word choice, sentence fluency, and conventions. Pre-writing, editing, and revision will be used to produce at least two final writing products in one of these three modes: expository, narrative, or persuasive. Topics will be student choice.

Read –Write – skills for 8th grade

This course will focus on those strategies that will enable a student to be successful when reading an informational text such as a science or social studies book. Topics will include vocabulary development/contextual understanding; pre-reading strategies such as, but not limited to, K-W-L and SQ3R; research strategies; concept/story mapping; and graphic organizers.

This course will also build skills in the six analytical traits of writing--ideas and content, organization, voice, word choice, sentence fluency, and conventions. Pre-writing, editing, and revision will be used to produce at least two final writing products in one of these three modes: expository, narrative, or persuasive. Topics will be student choice.

Preparatory Courses

Students Going into 6th Grade

Be Cool in Middle School

Students will start middle school on the right foot with this course. They will explore Multiple Intelligences and discover their own learning style. Students will learn how to manage time and stay organized. Note-taking within each subject area will be explored as well as other study techniques such as mnemonic devices, singing and visualization. Students will also practice listening, goal setting and test-taking.

Students Going into 9th Grade

Step-Up to High School

Held at the high school, this course is for students preparing to enter 9th grade. This class is designed to help students tackle the most challenging courses they will face during the first year of high school: English and Math. Participants will brush up on the math, reading and writing skills that students can struggle with the most. They will also learn some valuable study and life skills, as well as strategies to make the transition seamless and make high school a great experience! Please register using the high school registration form.

English Language Learner students

English Language Learners (ELL) - Levels 1 & 2

This course is designed for students who are beginning to learn English as an additional language. Students acquire English language skills through content-based instruction in the four domains of language use: reading, writing, speaking and listening. The curriculum focuses on “survival English” and emphasizes development of

vocabulary. Reading and writing instruction are also emphasized. Students begin to read fiction and non-fiction works at the appropriate level of difficulty. They also begin to write words, sentences and paragraphs in English.

Interest Courses: Sixth, Seventh and Eighth Grade

App Inventor

Students will learn computer science by building socially useful mobile apps for Android devices. Students will be challenged to problem solve and use critical thinking skills to design, program, develop, and test their apps during the completion of this course. In addition to programming and computer science principles, the course is project-based and emphasizes writing, communication, collaboration, and creativity. No prior programming experience is required.

Archery and Orienteering

This class is your chance to participate in two of the most fun and challenging activities in outdoor education. These activities test a student's mental and physical skills. Orienteering teaches students to read maps, use a compass, work as a team, and make rapid decisions. Archery improves focus, hand-eye coordination, strength, social skills, and confidence. All archery will be taught by a certified instructor in the National Archery in the Schools Program.

Art Expressions

Students will experience pottery, painting, sculpture and more in this course where art is integrated with language arts and writing.

Babysitting Basics Mini-Course*: Sixth, Seventh and Eighth Grade

Prepares students to provide safe and nurturing supervision and care while babysitting infants through school age children. Class activities will include preparing a babysitting kit, children's snacks, and craft activities. Child and Infant CPR and First Aid training will be included. The CPR booklet and certification is included in the course fee.

*One week session

Blogs and Vlogs for Students

Students will learn how to write, design, and market their own blog. Topics will include content generation, writing, graphic design, marketing, and video content. Participants will write for an authentic audience and come away with their own blog to use beyond the course.

Computer Coding and Robotics Level 1

Students will be introduced to basic mechanical engineering and the design process by learning key STEM principles and robotic concepts through the construction of a VEX robot. The class leverages the excitement of robotics combined with project-based activities to teach the design process. Students will be challenged to problem solve and use critical thinking skills to design, program, develop, and test their robots throughout the duration of the course. No prior robotics experience is required; beginners are able to advance gradually increase their knowledge and skill level.

Computer Coding and Robotics Level II

This STEM based class is an in-depth investigation of building and programming robots using a VEX robot. Students will enter the world of computer science and continue to develop problem solving and critical thinking skills by working with a robot and programming it with a computer to move, react, and make sounds. Students will also build their knowledge of concepts such as variables, loops, conditional statements, and event handling. Students will work in pairs and small teams, sharing a VEX robot and computer.
Prerequisite: Students must have taken Computer Coding and Robotics Level 1 to enroll in this course.

Cool Chemistry

Bubbles, slime, elephant toothpaste and more! Class will explore "Kitchen Science". Students will conduct multiple experiments that can be repeated at home with family and friends (with parent permission, of course!). Explanations for why things react the way they do, and hands on inquiry to keep students learning as they have fun.

Drama

In this course, students will learn and practice basic acting skills and techniques to effectively communicate on stage. Activities will include theatrical warm up, improvisational games, and discussion of actors' obstacles and objectives within a scene. We will explore what it means to develop a character for a play using imagination, body, and voice. The course will cover stage directions and theatre terminology.

Entrepreneurship

Are you interested in owning your own business someday? Do you have a great idea for a new product or service? In this course, students learn what it means to be an entrepreneur and how to use their unique skills and talents to start a small business venture. Students will:

- Recognize characteristics and practices of successful entrepreneurs
- Demonstrate business-planning skills for the following: business set-up; marketing; financing; management and ethical decision-making

It will be three weeks full of activity and fun!

Exploring Engineering

Do you like ice cream? This course will focus on the Engineering Design Process as students engineer a process for making ice cream. Students will have the opportunity to build skills in problem-solving, teamwork, communication and creative thinking.

Forensic Science

Use hands-on lab activities to solve "crimes" and explore the world of forensic science. Participants will learn about crime scene analysis and evidence. In addition, students will practice proper lab techniques and develop skills needed for scientific inquiry.

Introduction to Photojournalism

Students will explore summer school through the eyes of a photojournalist by creating a journalistic slideshow documenting the summer school experience. Students will learn about camera operation, legal issues, proper photography techniques, interviewing techniques, caption writing, and headline writing.

Minecraft for Middle School

Students will enter the world of Minecraft and practice coding, problem-solving, and creativity to solve real-world problems. Minecraft Education allows students to collaborate and create as they learn science concepts such as deforestation and planet exploration. Mathematics concepts are also reinforced as students work with geometric concepts and fractions in real life settings.

Unplugged Guitar

This course will allow students the opportunity to learn to play the acoustic guitar, at the beginner and intermediate levels. Students will learn to play chords using a chord chart, as well as melodies and a variety of rhythm styles. Students will use only acoustic guitars. A few guitars are available to borrow, but students should plan to use their own guitars if possible.

Virtual Explorations

Participants will solve real-world problems using virtual reality by Google. To find solutions, students will listen and look carefully as they search the Smithsonian Museum, explore a coral reef, or walk on Mars to find clues and answer questions. Students will experience virtual field trips in order to travel through history, examine new cultures, and dig in to science. They will collaborate with classmates to look at multiple perspectives and challenge one another to think critically.

Wildlife Safari

Come on a North American Wildlife Safari! Students will work in the field exploring the plants, animals, and water systems of native ecosystems and how they are interconnected. Join us for dissections, catching amphibians and collecting data, hiking, exploring North American wildlife, and creating enrichment activities for animals living at the Safari. There will be various guest speakers and opportunities for service learning projects at the Safari Park.

Class will be held at the Wildlife Safari park with transportation provided from Millard North Middle School. The bus will leave at 8:00 each morning and return at 12:30. Students may bring a lunch or pick one up from school.

High Ability Learners: Sixth, Seventh and Eighth Grade

Literary Explorations

In this class, students will study the concept of change through discussion and collaboration. Autobiographies of various writers and artists will be explored by examining, comparing, and contrasting life stories, self-portraits, literature and works of art from various cultures. Through discussion, research, presentations and reflective writing, students will gain insight into the development of talent and will explore their own identities. Students will experience high-quality literature selections, hands-on lessons, and will gain a deeper understanding that will enhance writing, reasoning, reading, and analytical skills.

Exploring Mathematics

This course is designed for middle school students identified as HAL in the areas of mathematics and visual spatial skills. Students will practice problem-solving, logical analysis and critical thinking skills. Algebra concepts will be explored using various strategies.