



Creek Valley MS

Downing MS

Forestwood MS

Griffin MS

Hedrick MS

MISSION

All students at an LISD Middle School STEM Academy will learn to apply basic content and practices of the STEM disciplines to situations they encounter in life.

STEM Science



ALL students in 6th, 7th, and 8th grade will participate in an enhanced science course with a focus on the Engineering Design Process. Students will experience a curriculum that includes design challenges, investigations, and career exploration that connects them to real-world problems.

STEM Electives

LISD Middle School STEM Academies will use a variety of resources including Project Lead the Way and Pitsco Education products within the elective courses. These electives are designed so that students are empowered to make their own discoveries through engagement, excitement, and collaboration.

The courses offered for school year '24-'25 are shown below.

Gateway to STEM 1

Design and Modeling - 1 semester

Students discover the design process, and develop an understanding of the influence of creativity and innovation in their lives. They are then challenged and empowered to use and apply what they've learned throughout the unit to design a therapeutic toy for a child who has cerebral palsy.

Note: Please be aware that certain course lessons may involve the use of specific applications that require parental consent and signature for students under the age of 13. Review these apps for each course by scanning the QR code.

Students who do not obtain consent may be given alternatives for some learning experiences.

Science of Technology - 1 semester

Science impacts the technology of yesterday, today, and the future. In this unit, students apply the concepts of physics, chemistry, and nanotechnology to activities and projects, including making ice cream, cleaning up an oil spill, and discovering the properties of nano-materials.

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SCAN ME

Gateway to STEM 2

Medical Detectives - 1 semester

Students play the role of real-life medical detectives as they collect and analyze medical data to diagnose disease. They solve medical mysteries through hands-on projects and labs, measure and interpret vital signs, examine nervous system structure and function, investigate disease outbreaks, and explore how a breakdown within the human body can lead to dysfunction.

Automation and Robotics - 1 semester

Students learn about the history and impact of automation and robotics as they explore mechanical systems, energy transfer, machine automation, and computer control systems. Using the VEX Robotics® platform, students apply what they know to design and program traffic lights, robotic arms, and more.

Prerequisite for STEM 2: none

Gateway to STEM 3

STEM: Expedition Unknown - 1 semester

During fall semester, students will embark on a journey through the world of STEM pathways by completing real-world design challenges. Students will use critical and creative thinking skills to create innovative solutions in the fields of Health Sciences, Computer Science, Engineering, and Manufacturing. The challenges include designing a mechanical replacement for a human organ, developing mobile apps, designing a self-sustaining power system, and creating original products for use in industry. Through these hands-on collaborative projects, students will evaluate their unique strengths and interests while investigating a variety of STEM fields.

Note: Please be aware that certain course lessons may involve the use of specific applications that require parental consent and signature for students under the age of 13. Review these apps for each course by scanning the QR code.

Students who do not obtain consent may be given alternatives for some learning experiences.

Exploring Aviation - 1 semester

During spring semester, students will be challenged to complete several STEM design challenges using the engineering design process. The challenges include utilizing a small drone to inspect difficult-to-reach areas, creating drone security solutions for a variety of clients, and using drones to simulate search and rescue operations. Students will also explore related career connections and practice soft skills such as collaboration, critical thinking, and problem solving.

Prerequisite for STEM 3: none

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