WHAT DO THIRD GRADERS LEARN IN STEM?

STEM FLUENCY ✦ CAREER EXPLORATION ✦ ROBOTICS, CODING, & COMPUTATIONAL THINKING

NISD's STEM Program is Unique

NISD's STEM curriculum is based on the Technology Applications TEKS, Career and Technical Education alignment, Texas Career Clusters, and Texas Education Agency's STEM Fluency Skills and Computational Thinking documents.

STEM Fluency Skills

You may have heard people talk about the need for employees to have "soft skills" to be successful in a job. The Texas Education Agency provides educators with descriptions of "STEM Fluency Skills" rather than soft skills. STEM Fluency Skills include: Collaboration, Communication, Critical Thinking, Creativity, and Resilience.

They say this about STEM Fluency Skills: "STEM education also includes a fluency in the skills associated with career readiness and workforce development."

Keyboarding

Beginning in third grade, students practice correct body and hand position when keyboarding. They are introduced to using shortcuts for actions such as copy, paste, undo, or closing windows.

Robotics, Coding, and Computational Thinking

Each year during STEM class, students practice the computation thinking skills to logically solve problems when coding and programming robots. These skills get more complex each year.

Career Explorations

During Career Explorations units each year students learn about and explore a variety of STEM careers. These careers align with CTE courses in middle and high school.

Computer Science

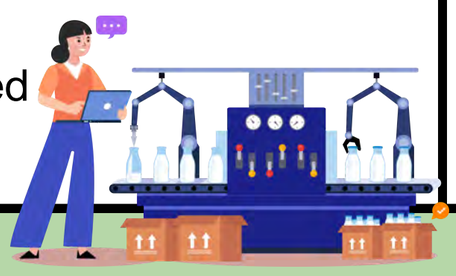
The concepts of binary code and truth tables are fundamental in computer science to understand the logic behind how computers work. Learning these concepts helps students develop crucial problem-solving and logical thinking skills preparing them for a digital future.

Forensic Science

Solving a mystery with evidence while learning about how our fingerprints are different allows students to practice critical thinking, communication, and teamwork skills. Students learn about how evidence-based reasoning is important to forensic scientists.

Manufacturing Production

How are items we use every day made? How has manufacturing production changed over time? These are some questions that students explore through hands-on experiences to better understand how items are produced effectively and efficiently.



Mechanical Engineering

Mechanical engineers design and create all sorts of moving things, from speedy cars to giant Ferris wheels. They figure out how to make things strong, how to make them go, and how to make them work just right. Students work in groups to complete design challenges with moving parts during this unit.