

GET IN TOUCH

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NEW CANEY ISD
STEM
EDUCATION

ENGINEERING DESIGN PROCESS

The design process can be used to solve problems for students from all backgrounds and walks of life, no matter their future career goals. It typically consists of the following steps:

01. IDENTIFYING THE PROBLEM OR NEED 



IMAGINE SOLUTIONS **02.**



03. SKETCH A DETAILED PLAN

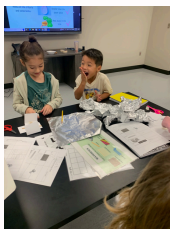


SELECT MATERIALS WITHIN A BUDGET **04.**



05. CREATING A PROTOTYPE OR MODEL

TESTING AND EVALUATING THE PROTOTYPE **06.**



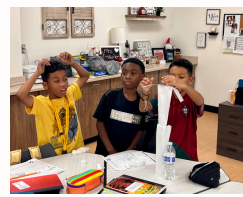
07. REFINING AND IMPROVING THE DESIGN

PRESENTING THE FINAL SOLUTION **08.**








WHAT IS STEM?

STEM (Science, Technology, Engineering, & Math) is a method of teaching where real world problems are solved using the Engineering Design Process. The Engineering Design Process is a step by step method to ensure success in creating a solution to a problem. As it focuses on a systematic approach that fosters critical thinking, problem-solving, and creativity, it plays a crucial role in equipping students with the skills necessary for success in the modern world.



HOW IT'S IMPLEMENTED?

-  **24 EDP LESSONS**
-  **KINDERGARTEN - 5TH GRADE**
-  **4 EDP LESSONS PER YEAR FOR EACH GRADE LEVEL**
-  **EACH EDP LESSON IS FIVE DAYS FOR 1 HOUR EACH DAY**
-  **STUDENTS UTILIZE A STATE OF THE ART STEM EDUCATION LAB TO EXPERIENCE HANDS ON TEK BASED ACTIVITIES THAT FOCUS ON PHENOMENONS**

BENEFITS OF STEM EDUCATION

Integrating the Engineering Design Process into STEM education offers numerous benefits, including the development of critical thinking, problem-solving, creativity, and collaboration skills. By applying the EDP, students gain hands-on learning experiences in an environment where students aren't afraid to fail, because fail simply means first attempt in learning. We will prioritize the integration of the EDP in STEM curricula, fostering a generation of innovators equipped to tackle the challenges of the 21st century.

