



Science
Technology
Engineering
Mathematics
2021-2022
Middle School
STEM Program
Information and
Guidelines

STEM STATISTICS

- Between 2014 and 2024, the number of STEM jobs will grow 23% in Texas (17 percent nationally), as compared with 12 percent for non-STEM jobs.
- In 2012, the median earnings for workers in STEM occupations (regardless of education level or field) were \$78,270, more than double the median (\$34,750) for all U.S. workers.
- STEM related jobs have the lowest unemployment rates.
- Of the 20 fastest growing occupations projected, 15 of them require substantial math or science preparation.

PROJECT BASED LEARNING (PBL)

The BISD Middle School STEM Program reinforces math and science through mechanical, civil, environmental, biomedical, and aerospace engineering. Students apply concepts through hands-on PBL activities. These PBLs puts students in the role of a specific STEM career and asks them to conduct authentic performance tasks such as building robots, rockets, and research on topics such as simple machines, heredity and astronomy. Upon completion of the program, students are well prepared to succeed in STEM coursework and earn the STEM Endorsement upon high school graduation.

ELIGIBILITY AND COMMITMENT

Priority: 85% or above overall average in both STEM Math and STEM Science classes at the end of the 1st Semester.

- 1) Copy of 1st semester report card.
- 2) Recommendation letters from current math **and** science teachers.

Commitment to STEM Program: (Signed by parent and student).

1. We commit to maintaining an 85% average per semester in **both** STEM math **and** STEM science classes.
 - Students not able to maintain the 85 average in both classes will meet with counselor and be placed on probation after the first six weeks. A contract for improvement will be signed by the student and parent at this time.
 - The probation status will be revisited after the 2nd six weeks. If there is no improvement, the student will be removed from the STEM class. An 80 and above average will be considered improvement.
2. We commit to competing in at least one BISD competition (examples are Science Fair, Brainsville, American Math, Math Counts, Robotics or other district supported math or science competition).
3. We commit to maintaining over a 98% attendance rate.
4. We commit to maintaining an outstanding code of conduct record.
5. We commit to attending parent-teacher-student-principal conferences as required to discuss grades, probation status, contracts for improvement, and all other meetings deemed necessary by the school to remain in the STEM Program.
6. We commit to participate in the Parent and Student STEM Orientation meeting.
7. We understand students must meet expectations in all subject areas of the STAAR test to be enrolled in a STEM course.
8. We understand failure to maintain any or all of these commitments may result in probation and or removal from the program.

Students must successfully complete Algebra I to be able to apply for STAMP and SPACE academies.

BISD MIDDLE SCHOOL STEM RECOMMENDED CURRICULUM PATHWAY

Students are strongly encouraged to use this program to prepare for and apply to BISD's Science, Technology, and Medical Professions (STAMP) academy or STEM Programs in Aerospace, Architecture & Careers in Engineering (SPACE) academies in high school.

Students must successfully complete Algebra I to be able to apply for STAMP & SPACE academies.

Incoming 6th graders (2021-2022) Recommended STEM Pathway:

6th grade: Technology Application (1 semester) and Coding (1 semester)
7th grade: Principles of Applied Engineering (1 yr. = 1 H.S. credit)
8th grade: Robotics I (1 yr. = 1 H.S. Credit)

For Incoming 6th graders automatic admission to the STAMP/SPACE academies, all of the following criteria MUST be met:

- Complete and sign the Middle School STEM application and follow its eligibility criteria.
- Successful completion of the STEM pathway
- Successful completion of Algebra I in 8th grade

Application Deadline: Friday, March 5, 2021
Submit application to campus grade level counselor.

***Final acceptance based on the Middle School Committee (Principal, Counselor, STEM Math and Science teachers) and space availability.**

BISD does not discriminate on the basis of race, color, national origin, sex, religion, age, disability or genetic information in employment or provision of services, programs or activities.