

SUMMER
LEARN & GROW
Parent Handbook
“STEM”

Science Technology
Engineering and Mathematics



GENERAL INFORMATION

What is STEM Education?

With all the acronyms that determine hundreds of different areas of education, it is easy to confuse them all. Since 2001, the letters STEM have been a normal part of educational vocabulary.

The acronym STEM stands for Science, Technology, Engineering, and Mathematics. This program was started by Judith A. Ramaley, the former director of the National Science Foundation's education and human-resources division. This approach to education is designed to revolutionize the teaching of subject areas such as mathematics and science by incorporating technology and engineering into regular curriculum by creating a "meta-discipline."

There is more; STEM Education attempts to transform the typical teacher-centered classroom by encouraging a curriculum that is driven by problem-solving, discovery, exploratory learning, and require students to actively engage a situation to find its solution.

Integration of Curriculum

The four parts of STEM have been taught separately and most of the time independent from each other for years. By adopting the STEM philosophy Science, Technology, Engineering, and Mathematics all play an integral part in the teaching of the whole. The science, engineering, and mathematics fields are made complete by the technology component that provides a creative and innovative way to problem solve and apply what has been learned.

Many STEM education program participants are using highly specialized professional applications at very early ages. Programs that are usually reserved for college-level classes such as computer animation are being implemented in elementary school classrooms across the country as part of the STEM education initiative.

Benefits of Program

Since its implementation, critics have questioned the program's ability to teach all students equally. This argument is a difficult one to hold, since it has been proven that the education system in general has been tailored to the needs of female students over the past twenty-five years in its focus on verbal concepts.

All students benefit from the STEM program because it teaches independent innovation and allows students to explore greater depths of all subjects by utilizing the skills learned; these skills will be required for today's students to become tomorrow's global leaders. All jobs are requiring workers to have a greater ability to think critically, work as a member of a team and independently. and close the performance gap between our American students and those being produced in other countries.

Our Role and Responsibility

In recent years, there has been a significant decline in the number of college students choosing majors in science or technology related fields. Much of this can be accredited to poor preparation for the classes during high school and the intense work required outside of the lecture setting in places like laboratories. Students have chosen easier majors and courses of study in place of taking on the fields that they wanted to enter due to poor preparedness. If the graduation rates continue with this trend, there will be a workforce shortage in areas of engineering and science fields.

The United States needs to be more competitive and build new standards for our students. The National Science Foundation “estimates that 80% of the jobs skills.” For our children to see the advancements in their generations that we saw in ours, it is important that they have a well-balanced education that includes STEM elements, as well as, traditional classes in the Arts. STEM education is designed to teach the “whole” student and in turn will make them more successful members of society.

A Day at Learn & Grow

STEM education is active and focuses on a student-centered learning environment. Students engage in questioning, problem solving, collaboration, and hands-on activities while they address real life issues. In STEM education, staff functions as classroom facilitators. They guide students through the problem-solving process and plan projects that lead to mastery of content and STEM proficiency. STEM proficient students can answer complex questions, investigate global issues, and develop solutions for challenges and real-world problems while applying the rigor of science, technology, engineering, and mathematics. content in a seamless fashion. STEM proficient students are logical thinkers, effective communicators and are technologically, scientifically, and mathematically literate.

The development of STEM proficient students begins in elementary schools. In the elementary grades, students apply the rigor of science, technology, engineering, and mathematics content and the STEM Standards of Practice while engaged in learning activities that investigate the natural world. Students explore technology and engineering solutions and appropriately apply the concepts of mathematics to understand and address real life issues and solve problems or challenges.

Weekly Activities include:

****Schedules vary per classroom****

Morning

7:30-8:00 – Breakfast and Storytime

8:00-8:45 – STEM Activity 1

8:45-9:00 – Transition time

9:00-9:45 – STEM Activity 2 (Cooking)

9:45-10:00 – Snack/Transition time

10:00-10:45 – STEM Activity 3

10:45-11:00 – Transition time

11:00-11:45 – Physical Education

11:45- 12:00 – Pick up time / Take home lunch

Afternoon

1:00 - 1:30 – Lunch and Storytime

1:30 – 2:15 – Curriculum Activity 1

2:15 – 2:30 – Transition time

2:30 - 3:15 – Curriculum Activity 2

3:15 - 3:30 – Snack/Transition time

3:30-4:15 – Curriculum Activity 3

4:15-4:30 – Transition time

4:30-5:15 – Curriculum Activity 4

5:15-6:00 – Pick up time / Free time

Activities include: Outside playtime, physical education games, science experiments, technology activities, coding, culinary arts, sensory activities, math games, engineering challenges, arts and crafts, Lego challenges, team building, and other hands-on activities.

Each month has a different theme!

Activities for science, experiments, arts, crafts, games, engineering, Legos, etc., are planned to enhance knowledge and interest in the monthly theme.

Things we learn about:

- Outer space and Aeronautics, the ocean and marine life,
- Plants, animals, insects and the human body.
- The weather, buoyancy and any other water messes that we can get into.
- Earth science topics and recycling.

Daily Expectations and Program Requirements

- Students are expected to maintain appropriate classroom behavior
- Students are expected to participate in STEM activities
- Students are expected to maintain a safe learning environment by treating others with respect both physically and mentally.
- Students are required to have written permission from a parent or guardian to enroll into this program.
- Students are expected to self-manage.
- Students are required to follow facilitator instructions without individual prompts.
- Students are expected to verbally engage in discussions pertaining to daily projects.
- Students are required to participate in clean-up
- Students are required to remain at the Learn and Grow site until picked up by authorized persons.
- Parents and Guardians are required to pick-up before 5:20 pm daily.
- Parents and students are required to follow directions of the Learn and Grow staff.
- Learn and Grow is an enrichment program with a focus on student's academic success.
- Daily reading assigned from parents will also be completed.
- During breakfast, lunch, and snack times, students are required to sit and eat. No activities will be held during these times.

Safety Policy:

- Students who are enrolled in the Learn and Grow program will actively participate in ensuring the safety of themselves and their peers.
- Any student who is behaving in an unsafe manner will be prompted to redirect his/her behavior. If the student does not redirect their behavior, the student will be instructed to sit out of activities for 5 minutes.
- If the student is not willing to abide by the safety policy, or follow staff instructions the student's parent or guardian will be notified and the student will be dismissed from the Learn and Grow program for the day. (Student will be allowed to return the following day)
- If student is sent home on three occasions due to not abiding by the safety policy or for behavioral issues the student could be dismissed from the Learn and Grow program permanently due to safety risks.
- When students are handling materials for STEM Centers students are required to handle materials only as instructed by Learn and Grow Staff.
- Student's parents are required to submit a student contact list for responsible persons allowed to pick-up students during/after Learn and Grow hours.
- Student's parents are required to submit a student no-contact list for persons not allowed to contact the students.
- Parents must submit written permission for children to leave the Learn and Grow site without supervision.

Summer Learn and Grow Hours:

Full Day: Monday through Friday 7:30am – 5:30pm (Parent Pick-up)

Half Day: Monday through Friday 1:00pm – 5:30pm (Parent Pick-up)
Monday through Friday 7:30am – 12:00pm (Parent Pick-up)

Parent Signature Page:

By signing my name below, I certify that I have read the fore here information. Any questions concerning these rules and policies have been discussed. My signature also certifies my understanding of, and agreement with the rules and policies.

Parent Signature: _____

Date: _____

This signature page is to be returned to Learn & Grow Program Specialist. (Jessica Rasmussen)

Thank You for being a part of “**The Best Summer Ever**”

Jessica Rasmussen-Program Specialist
307-686-0669 ext. 1703

After Hours Telephone
307 299-1456
For Jessica