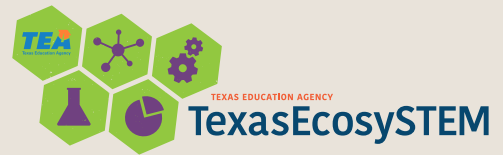


Family STEM Engagement Ideas for a District





DISTRICT IN SCHOOL IDEAS

- **Parent STEM Meeting:** Have a STEM informational meeting at the beginning of the year explaining what STEM is and how STEM looks in education. (*distribute the TEA Family STEM Companion Book*)
- **STEM Night:** Schedule STEM activities/events at school that families can complete with their child after school or on the weekend. For example: Code Night, Design Challenges, Dads and Design, Moms in the Makerspace, Family Makerspace Challenges, Lego Build Showdown, CSI Crime Night, local STEM events by STEM non-profits or informal STEM educators
- **STEM “Kodak” Moment:** Have students video/photograph themselves doing/explaining a STEM activity and share it with parents.
- **STEM Meals to Go:** After a STEM event, provide meals to go for busy families.
- **Family Learning Events:** Schedule 3-4 events during the year for families to come to school to learn what their child is learning in STEM. During this time, participants see how the STEM fields connect to projects, what the expectations are for their child and how it prepares them for future careers. (Remember to provide childcare for this event)
- **Extreme Half-Day STEM Event:** Half days are a perfect time to schedule an event because many parents must take the day off from work and they are at school to drop off their child. Start the day with a free breakfast/meeting for parents and then have a learning time for families to do a STEM challenge together.
- **Virtual STEM Show and Tell:** When students complete a design challenge and are ready to share their design with their classmates, let parents attend the presentation virtually.
- **STEM Open House:** Showcase the STEM projects/products your students have done in each grade level and send the products home at the end of the event.
- **STEM Lunch and Learn for Families:** Bring in STEM speakers and allow students to learn with their families while they share lunch together. (Many companies will host a lunch and send the speaker)
- **“In House” Family Experts:** Reach out to your families and ask who would be willing to talk to students about their STEM career.
- **STEM Movie Night:** Promote STEM by having a family STEM movie and popcorn night at the school or community center. For Examples: Hidden Figures, The Lego Movie, Big Hero 6, Dream Big, Underwater Dreams, Apollo 13, The Martian, If You Build It, The Imitation Game



DISTRICT OUT OF SCHOOL IDEAS

- **STEM at Home:** Provide STEM ideas and activities that are cheap and easy to be done at home like design a household system to make a grocery list every week.
 - **STEM Homework:** If asking a student to complete STEM homework, provide an explanation of the project and an explanation of the engineering design process. (*see the TEA toolkit*)
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- **Everyday STEM:** Have tips for parents to observe STEM in everyday experiences. For example: parents highlighting STEM examples when doing the laundry, at mealtime, when turning on the lights
 - **Connectory:** Encourage families to check the Connectory for STEM events near them. <https://theconnectory.org/>
 - **Theme Night:** Have themed nights at the school or public meeting place that has cross curricular activities promoting STEM learning. For example: Spooky STEM at Halloween, STEM in the Movies, STEM Myth Busters
 - **Family Survey:** Distribute a family survey to learn about your parents' interest and what type of activities they would like to engage in during the year. (*See the TEA Sample Surveys*)
 - **STEM Family Homework:** One of the best ways to learn content is to teach it to someone else. Involve your families by having youth teach a family member a concept or share their product design idea. The family member reports back how they were taught and how confident the student was in their knowledge.



DISTRICT FAMILY ENGAGEMENT TIPS

- **Communication:** Provide regular communication about STEM activities/events that are culturally relevant (multi-lingual). For example: flyers, newsletters, social media, app text messaging, make refrigerator notes about upcoming events
- **Flexibility:** Provide flexible hours when scheduling meetings and events with parents. For example: on school half days, Saturday mornings, immediately after school, times coordinated with bus or train schedules
- **STEM Class Website:** Post pictures of projects and blog about upcoming STEM challenges. Families can stay connected with what is happening at school by visiting the website.
- **Parent Perception:** Engage parents in helping to identify potential problems with a STEM event and have them help solve the issues. Getting a parent's perception will shed new light on the planning process.
- **Flexible Age Groups:** Encourage whole family participation by offering activities to engage multiple age groups so all children can participate.
- **Gender Unbiased:** Have STEM events for all students so that families can experience both male and female youth discovering their joy for STEM.
- **STEM Marketing:** Market STEM family events with pictures that include families participating in STEM together. Promote family members' participation with flyers and other advertisements that include specific language about parents participating with their child so families will know to take an active role.
- **Family Question Guide:** Give parents a handout of questions and phrases that they can use during program activities and at home. For example, a question like "What do you think will happen?" Encourage youth to reflect on and predict what will happen in their investigations and to persist when things don't go as planned the first time.
- **Family Involvement Projects:** Plan family projects that are fun and educational. The project could be a community garden where students learn the STEM in gardening.

