



Texas Alliance for Minorities in Engineering

DIVISIONAL STEM COMPETITION HANDBOOK

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INTRODUCTION

Thank you for volunteering to coordinate a TAME Divisional STEM Competition.

Every year, we ask the students attending the TAME STEM Competitions to name their favorite part of the event. At the 2015 State Competition, we got our favorite answer yet. What was the best part of the STEM Competition? **“Seeing my future.”**

Thanks to you, hundreds of students across Texas are able to compete in a challenging STEM Competition that is free of cost and lots of fun. The Competitions have inspired a majority of TAME students to pursue careers as engineers, chemists, cardiologists and much more. We look forward to working with you to inspire and engage the next generation of scientists and engineers.

The TAME STEM Competitions have been offered across Texas for decades. This handbook is an attempt to distill and distribute the collective experience of TAME Chapter leads, event organizers, volunteers and staff so that we can offer consistent, replicable, scalable competitions in the decades to come. It includes detailed information on the planning and logistics of the annual TAME Divisional STEM Competition. All the forms referred to in this handbook are available on line. You can use these customizable forms to invite students, recruit volunteers, engage media and report back to the TAME State Office.

The most recent version of this handbook with all the current forms and templates is available on the [TAME Website](http://www.tame.org/chapter-teams/download-forms-materials) at <http://www.tame.org/chapter-teams/download-forms-materials>

We are so grateful for your support over the years, and welcome feedback, comments and insights on the content of this handbook via email at programs@tame.org.

Thank you!
TAME State Office Staff

“The very first time I attended a competition... I got there thinking, surely there won’t be a big turnout, these kids would rather watch cartoons or do anything else on a Saturday morning besides take a math and science test. But there were all of these students lined up and signing up for the tests, so excited to learn more, and just seeing their excitement was incredible to me. These kids definitely have a passion for knowledge and I could see them light up at the challenges they were able to face.”

- Kyle R., TAME volunteer

“I got involved with TAME... when I was invited to participate in the Math and Science Competition in Houston. The competition was a blast. It was well-organized and fun. I took tests in biology and physics, and then there was a group project where we had to simulate the most efficient windmill. It turned out to be an inertia formula. We didn’t win that time, but it was still really cool to work on it. We also got to tour a jet factory and listen to the people who worked there. TAME opened my eyes to math and science fields. I thought, you’re going to be fine if you get a degree in engineering or science. It gave me a confidence boost.”

- Rachel R., Biochemistry major and TAME scholar

COMPETITION OVERVIEW

Since 1976, TAME has worked to strengthen the education-to-employment pipeline in Texas by encouraging students to explore STEM electives and careers. While TAME focuses on recruiting students traditionally underrepresented in STEM, TAME programs are inclusive and open to all Texas students.

The STEM Competitions are an important part of TAME's multi-faceted, age-appropriate approach to engaging and retaining students interested in STEM. Designed to reinforce success in math and science and to encourage the development of a peer and mentor network, the Competitions also provide a unique opportunity for students, many from rural and/or economically disadvantaged areas, to visit a college or corporate campus and to interact with STEM role models. At the 2017 Competitions held across Texas, 99% of participating students -- more than 54% Hispanic or African-American and 56% female -- were going to college, with 48% of seniors going into engineering and 77% into STEM.

TAME Chapters host a Divisional STEM Competition for TAME Club Members in their Chapter¹. The competitions are **free** for all participants thanks to sponsors who cover all costs including registration, program materials and event supplies. Lunch will be provided for all participants. The students with the highest combined score in the math and science tests for each grade receive an automatic invitation to the State STEM Competition. If a Divisional Competition has more than 50 participants, the top-performing team in the Engineering Design Challenge at each Divisional STEM Competition also receives an invitation to compete in the State STEM Competition.

COMPETITION DETAILS

- The Divisional Competitions are one day events held at a high-school, college or corporate campus.
- Participants at the competitions take timed math and science tests that correspond to their grade.
- Each participant also competes in a hands-on, team-based engineering design challenge that simulates real-world professional experience.
- Educators at the event may be offered a workshop or other relevant activity.
- An inspirational speaker or a panel may be offered as part of the welcome/awards ceremony.

GRANT PROGRAM DETAILS

The Divisional STEM Competition is a TAME event offered by TAME Chapters across Texas. Event Insurance is provided upon request.

Each Chapter must submit a Divisional STEM Competition Grant Application (Available on-line) no later than two weeks before your competition. The TAME State Office ships the following items on receipt of a completed, timely grant application form from the organizing committee:

- A T-shirt and a giveaway for each student and TAME teacher attending the competition
- Tests for each student
- Awards (Medals and ribbons)
- Funding for food, if necessary
- Engineering Design Challenge Student Instructions (one per team) and supplies
- Forms like proctor instructions, evaluation forms, etc. The forms are accessible online. A link will be provided to chapter coordinators.

¹ TAME Chapters follow the boundaries of TEA regions. <http://www.tame.org/chapter-teams>

REQUIRED REPORTS

After the competition, each Chapter is required to submit the following to the TAME State Office:

- Raw scores and placement data for all participants
- Tracking forms for all students
- Completed evaluation forms from students, teachers and volunteers
- Design challenge scoring sheet
- T-shirts, awards, cash grant or other supplies that were not used at the competition

TYPICAL COMPETITION SCHEDULE

8:15 - 8:45 a.m.	Check in, Distribution of t-shirts
8:45 - 9:00 a.m.	Welcome Ceremony
9:00 - 11:30 a.m.	Math and Science tests for Students / Workshop for teachers
11:30 a.m. - 12:15 p.m.	Lunch
12:15 - 2:15 p.m.	Engineering Design Challenge for Students
2:15 - 3:00 p.m.	Student Activity (science demonstration, STEM speakers)
3:00 - 4:00 p.m.	Awards Ceremony
4:00 p.m.	Students Depart

ANNUAL COMPETITION CALENDAR

First Wednesday of November	Chapters select Divisional Competition date
Third Wednesday of November	Club and student registration due for Divisional Competition
Two weeks before competition	Divisional Grant Application due
Third Saturday of February	Last day to hold Divisional Competition
2 weeks after competition	Divisional report due to State Office
First Wednesday of March	State registration due to State Office
April/Early May	State STEM Competition

LEADERSHIP TEAM ROLES AND RESPONSIBILITIES

There are several key tasks that must be managed and coordinated to ensure a successful STEM Competition. We recommend that an organizing committee take on the different tasks listed here, with at least one person responsible for each of the following –

- Event coordination, financial overview and communication with TAME State Office
- Volunteer recruitment, training and support
- Testing and Grading coordination
- Engineering Design Challenge organization
- Facilities and logistics, event set up and clean up, food service
- Welcome and Awards Ceremony coordination, media outreach

REQUIREMENTS AND RECOMMENDATIONS

FACILITIES

The competition is typically held on a Saturday from about 8:00am until 4:00pm. Attendance varies from 100-300 students and 40-75 volunteers. The competition host, usually a school, university or corporate campus provides space for the competition. Volunteers from the host organization serve on planning and volunteer committees, and assist on the day of the competition. Depending on anticipated participation, the event location will need to accommodate the following:

- Testing Areas: Rooms for morning testing sessions. Rooms should include suitable seating and writing surfaces and seat 30-60 students in each classroom. The total number of rooms should accommodate the anticipated number of students participating.
- Room/hall for Engineering Design Challenge: Large protected indoor space for the afternoon Engineering Design Challenge. Space should include tables/surfaces for teams to build their designs. Space should accommodate the anticipated number of students participating.
- Room/hall for Welcome and Awards Ceremony: Welcome and afternoon awards ceremony space to accommodate all participants. This area could also be used for the educator workshop if one is offered.
- Dining area for lunch: Designated lunch area for participants.
- Grading, volunteer training and event staging: Secure locations for volunteer training, test grading, and storage.
- Parking: Parking areas that accommodate volunteers, staff, and school buses. Parking must be near competition facilities.
- Audio/Visual Equipment: Microphones, projectors etc. if needed.

VOLUNTEERS

The Divisional STEM Competitions depend on committed, dedicated volunteers. Based on the facility and number of participants, the number of volunteers needed will also vary. Plan to recruit volunteers for the following roles. A volunteer may take on multiple tasks/roles if time permits.

- General Volunteers - Help with facility set up, clean up, and other tasks as needed.
- Test Proctors - Administer test in the morning.
- Grading Monitor – Experienced teacher to oversee the grading process and ensure accuracy.
- Test Graders – Teachers who can operate a Scantron machine and are comfortable with grading and verification.
- Lunch Volunteers - Set up and assist with flow of food distribution during lunch. Assist with lunch clean-up.
- Media Crew - Take photos and record quotes from students, chaperones, and volunteers.
- Engineering Design Challenge Judges - Facilitate and judge the Design Challenge.
- Awards Ceremony Crew - Distribute evaluations, door prize tickets, door prizes, medals, trophies, and other recognitions during the Awards Ceremony.
- First Aider – Responsible for the first aid kit and medical release forms for all participants. This is a high-trust position since the person will have access to sensitive medical data for all participants. Ideally it will be assigned to an experienced, trustworthy, senior member of the Chapter leadership team.

TESTING AND GRADING

The TAME State Office provides official tests that must be used at each competition. The tests are all multiple choice. Students typically use a Scantron readable answer sheet to mark their answers. Students are permitted to write on the tests. All tests must be turned in at the end of the testing period. Scratch paper may be provided.

TAME offers four tests at the STEM Competitions. Each student will take the test that corresponds to the student's grade.

The following tests are offered:

Student Grade	Tests	Calculators	Periodic Table
6 th Grade	Middle School Math, Middle School Science	Not allowed	Not needed
7 th Grade	Middle School Math, Middle School Science	Not allowed	Not needed
8 th Grade	Middle School Math, Middle School Science	Not allowed	Not needed
9 th Grade	High School Math, High School Science	Allowed	Provided in test
10 th Grade	High School Math, High School Science	Allowed	Provided in test
11 th Grade	High School Math, High School Science	Allowed	Provided in test
12 th Grade	High School Math, High School Science	Allowed	Provided in test

The students receiving the highest scores in each test, for each grade level will be recognized at the awards ceremony. You will be provided with first through sixth place awards for each grade for all tests.

Combine the math and science raw scores for all students to determine an overall winner for each grade. This student will receive a special medal and an invitation to the TAME State STEM Competition.

ENGINEERING DESIGN CHALLENGE

The Engineering Design Challenge (EDC) is an exciting and important part of the STEM Competition. While the timed tests seek to recognize individual student knowledge, the EDC is a team event. Students are placed in carefully selected teams when they arrive at the STEM Competition. Teams are made up of students of all ages, both genders and include a mix of ethnicities and schools. All teams are given Engineering Design Challenge instructions and a limited set of materials like paper cups, straws, toothpicks, etc. Students must build their solution in a limited amount of time, test and present their solution to the judges. Teams are recognized for performance, creativity, innovative approach and team work.

A new EDC is offered at the Divisional STEM Competitions every year. For consistency and fairness, the same EDC is offered at every Divisional. The TAME State Office will provide an electronic version of the challenge, materials list, instructions for judges and students, and electronic scoring sheets.

All students on the winning EDC team at competitions with 50 or more students will be invited to attend the TAME State STEM Competition.

CEREMONIES AND OUTREACH

A key objective of the STEM Competitions is to recognize and celebrate student achievement. The welcome and awards ceremonies are designed with this objective in mind. They also serve as inspirational events. Captivating speakers and former TAME students are invited to share their stories and journeys with participants.

If the competition is held at a corporate or higher education campus, students may be taken on tours of the facility. These tours are scheduled to be held after the EDC, and before the awards ceremony. This gives the EDC judges time to enter and collate scores.

A panel discussion with former TAME students or professionals from the community can also be scheduled for this time. Highlighting college and careers in STEM is an integral part of the STEM Competitions.

A sample press release is available. TAME recommends that press releases are sent to all participating school districts and local media highlighting their students' achievement.

STATE STEM COMPETITION: STUDENT SELECTION GUIDELINES

The State STEM Competition will be held on Saturday, April 28th 2018 in Anna, Texas. All current TAME chapters are invited to bring their best students to the event, keeping the following criteria in mind:

- Competition objectives
- Student safety
- Financial/logistical constraints

The TAME mission overlays all aspects of program delivery including student selection.

TAME Mission

Enabling Texas students to pursue careers in Science, Technology, Engineering and Math (STEM) by:

- Creating partnerships among educators, industry, government and families to inform, educate and motivate students
- Implementing classroom and extracurricular programs and activities
- Focusing on populations that remain underrepresented in fields of STEM
- Promoting diversity in STEM careers

Competition Objectives

Establishing patterns of success for minority and female students in math and science is a high priority of the TAME STEM Competition. Program objectives are to:

- Encourage student participation in academic competition with their peers.
- Reinforce the importance of good test taking skills.
- Motivate students to continue to strive for academic excellence.
- Reward students for outstanding achievement in math and science.
- Inspire students to pursue science, technology, engineering and math (STEM) careers.

Selection Criteria

- Identify number of students and chaperones allocated for your chapter by the TAME State Office.
- The top-scoring student from each grade level will automatically qualify to attend. The top-scorer for each grade will be determined by adding students' scores in the math and science tests at your Divisional Competition.
- If you had over 50 students at your divisional competition, invite all students from first place team in Engineering Design Challenge.
- Select additional students so that no student is the sole participant from their school
- Alternates: please select at least two alternates for each group (middle school boys, middle school girls, high school boys, high school girls).

Important Considerations

- The TAME mission and competition objectives when selecting students
- Student safety and comfort – Who is willing to chaperone? What schools do they represent? How many students are selected from that school?
- Balance the different segments of the TAME mission with a fair selection process.
E.g.: You plan to invite a student who meets the TAME focus demographics but did not place at the divisional competition. If there is a student who placed at the divisional competition and is from the same school, then he/she should be invited to state as well.

EVENT ORGANIZATION

- **Establish a planning committee/team:** This committee should include representatives from the local TAME Chapter, the competition sponsors, and competition host(s) and should plan to meet for in-person meetings or conference calls 3-4 times prior to the competition. The committee may assign different members to lead different planning areas. Detailed descriptions and checklists are included in this document.
- **Invite a trusted member of the planning team to serve as the State Office Liaison:** This person will receive all competition-related materials via email from the TAME State Office. This includes student registration lists, tests, answer keys, Engineering Design Challenge materials, reports, etc.
- **Select a date for the competition:** Divisional STEM Competitions must be held before the third Saturday in February. It is typically held on a Saturday early in the Spring semester. When selecting the date of the competition, keep in mind holidays and other academic events that could conflict with the competition date. If planning on using college students as volunteers, work around their academic calendar.
- **Secure a location:** Divisional STEM competitions are often held at local high schools, university campuses, or corporate offices. The selected location must have the necessary facilities to accommodate the testing and Engineering Design Challenge sessions, meals, and opening and closing ceremonies.
- **Recruit volunteers:** A successful STEM competition relies on a strong, engaged group of volunteers. It is essential to begin recruiting volunteers as soon as the event date and location are finalized. Volunteers will proctor and grade tests, judge the Engineering Design Challenge, help with set-up and break-down, and more importantly, act as role models for STEM education and careers. Volunteers may be recruited from local university student groups, professional STEM organizations, sponsoring company employees, and/or host company employees. Using an electronic volunteer registration (MySignup.com, SignUpGenius.com, or similar) will simplify this process.
- **Food:** Lunch is typically provided at the Divisional STEM Competitions. Some locations also provide breakfast or snacks. Organizers are encouraged to request in-kind contributions from local food vendors or other local partners. Plan to account for allergies and special dietary restrictions.
- **Press:** Connect with local media to highlight student engagement and local sponsorship of the competition. Invite school superintendents, city managers, mayors or local elected officials to present awards and interact with students when they are competing in the EDC. After the event, plan to send customized press releases to each participating school district highlighting student participation and achievement. A sample is included in the appendix.
- **Schedule a workshop for teachers (Optional):** Most TAME students will travel to the STEM competition with their teachers. We encourage you to offer an engaging workshop or hands on activity for these educators who will be waiting while students are taking tests.
- **Invite a guest speaker/panel:** Invite an inspiring engineer, professor, college student or TAME scholar to address participants at the Welcome ceremony. Schedule a similar presentation or panel discussion about college and careers in STEM for the afternoon, before the awards ceremony.
- **Collect door prizes and giveaways:** Contact local corporations, small businesses, stores like HEB or Walmart to request door prizes and give-aways for participants. Giveaways can include branded pens, hats, stickers, bags, etc. Door prizes can include calculators, backpacks, t-shirts, Lego robotics kits, etc.

- **Set up test grading protocol:** Most chapters use Scantron scoring sheets to grade the tests quickly and accurately. Invite a teacher to take the lead on the grading process and bring a Scantron machine for scanning the student answer sheets. Determine the specific type of answer sheet that will work with that machine and order some or request a donation from the school providing the Scantron machine.
- **Evaluation and Tracking:** Students will complete the tracking form before taking their test. Print sufficient number of evaluation forms for students and volunteers. Plan for their distribution and collection. All completed tracking forms and evaluations must be mailed back to the TAME State Office within 2 weeks of the Divisional Competition.
- **Finalize event logistics:** With all the planning done, the focus should now be on ensuring a safe, fun and fair Divisional Competition.
- **Have fun at the competition:** Enjoy the students' enthusiasm and excitement. Recruit student and volunteer help for clean-up at the end of the event.
- **Reporting:** After the competition, submit all raw scores and final awards selections to the TAME State Office. Work with TAME staff and organizing committee to identify students who will be invited to participate in the State Competition. Ship all leftover materials (T-shirts, medals, etc.) to the TAME State Office.

TESTING AND GRADING

- Print test rosters, proctor instructions and other testing related content
- TAME will provide all printed test booklets
- Secure Scantron, coordinate the purchase/donation of the right type of Scantron answer sheet
- Create an answer key for each test using the correct Scantron sheets
- Determine what models of calculators are allowed and distribute this information to all registered students and teachers
- Set up each testing room with the following:
 - Adequate copies of the test booklets
 - Scantron answer sheets (2 per student)
 - Adequate copies of the Student Tracking Form
 - Printed copies of proctor instructions
 - #2 pencils
 - Scratch paper
 - Calculators (when applicable)
- Set up the grading room with the following:
 - Scantron electronic grading machine for grading completed Scantron answer sheets
 - Printed answer keys for each test
 - Completed Scantron form answer keys for each test
- Coordinate with Volunteer team for volunteer proctors and scorers
- Train proctors and scorers
- Collect and save raw scores
 - (NOTE: **Raw scores are confidential. Do NOT release to teachers or students.**)
 - Tabulate rankings for use in your awards ceremony
- Report raw scores and places awarded to TAME State Office
- Collect completed Tracking Forms and mail to the TAME State Office

ENGINEERING DESIGN CHALLENGE

- TAME will supply most of the supplies that you need. Purchase any remaining materials (enough for all participating teams plus a little extra).
- Print judging criteria and scoring forms.
- Work with Organization Team to assign students to EDC teams. Teams should be mixed with students from different schools, varying gender, ethnicity and age and should have 5-6 students per team. Larger teams help decrease judging time and the number of tables required for the challenge.
- Create one package of materials for each team. Have a few extra packets available and invite teachers to participate, if possible.
- Work with Volunteer Team to recruit and train judges.
- Collect and rank scores for awards ceremony.
- Select three student teams to receive Judge's Choice Awards. Teams are selected by a small group of judges who evaluate teams based upon innovative use of materials, creative design, teamwork and perseverance. Judge's Choice Awards are not given to teams who earn a performance award (1st, 2nd, or 3rd).
- Submit raw scores to TAME State Office

WELCOME AND AWARDS CEREMONIES

- Identify an appropriate location for the welcome and awards ceremonies.
- Invite a Keynote speaker or panelists.
- Schedule tours of the location, if appropriate.
- Set up awards presentation.
- Recruit volunteer to photograph students receiving awards.

TIMELINE CHECKLISTS

TWO WEEKS BEFORE THE COMPETITION

- Send out confirmation emails to all students, teachers and volunteers
- Confirm speakers, if any
- Ensure sufficient number of volunteers have registered
- Assign testing rooms based on registration and facility
- Ensure sufficient pencils and Scantron forms are available
- Collect/secure donations of/purchase materials for needed for Engineering Design Challenge (EDC) that have not been sent from the State Office.
- Divide students into teams for EDC, create a package of materials for each team
- Check insurance requirements at host site and contact TAME State Office for appropriate documentation
- Order lunch
- Verify that the First Aid Kit is stocked with current medications

WEEK OF THE COMPETITION

- Create name tags with grade, t-shirt size and design challenge team number for all student participants
- Create volunteer name tags with position included
- Print medical and contact information for all students to have on hand in case of an emergency
- Print programs to distribute to students, volunteers, and teachers that outline the schedule of the day, along with locations and times; recognize key volunteers, sponsors, and hosts
- Pickup giveaways at area corporations
- Finalize giveaways and raffle prizes
- Print evaluation forms for students and volunteers to complete before the conclusion of the competition; a sample evaluation form is attached in this package
- Coordinate a backup activity, such as an informational video or puzzle worksheet that can engage students during any extra time between activities

DAY BEFORE THE COMPETITION

- Set up check-in table (site map, registration lists, volunteer signs, nametags, banner) at host location
- Hang maps and signs on doors and in parking lot
- Set up testing rooms (calculators, scratch paper, pencils, Scantron forms)
- Set up grading room (proctor instructions, Scantron machines, Scantron answer keys, extra supplies)
- Set up area for design challenge (giveaways, team number tent signs, EDC materials and forms, EDC bags)
- Set up area for ceremonies (test A/V, awards)

Print, collate and pack:

- Map of facilities
- Registration lists by tests and by last name
- Volunteer lists by activity and last name
- Nametags for all attendees
- Signs for rooms, directions
- First Aid Kit, medical & emergency contact information for all participants

DAY OF THE COMPETITION

To set up at the hosting venue:

- Check-in table with the above information and t-shirts for students and teachers sorted by club
- Bring extra supplies, including paper, labels, writing instruments, extra print outs, extra team design materials, pencil sharpeners, batteries for calculators, etc.
- Provide visible signage in the parking lots to the competition area and signage on the competition grounds pointing areas for testing, meals, team design challenge, etc.

Other areas to set up at the hosting venue:

- Testing rooms
 - tests
 - scratch paper
 - pencils
 - Scantron forms
 - Student Tracking Forms
 - calculators, if providing
 - extra batteries
- Grading room
 - proctor instructions
 - Scantron machines
 - Scantron answer keys
 - extra supplies
- Lunch area/EDC build and test area
 - give-aways
 - team number table tents
 - EDC materials and forms
 - EDC supplies for teams
 - EDC judging area
- Ceremony area
 - awards
 - audio visual equipment
 - door prizes (optional)

Provide brief trainings for:

- General volunteer shifts
- Test proctoring
- Engineering Design Challenge judging

Delegate:

- Identify an emergency point-person and First Aid procedures
- Identify team for event break-down
- Organize volunteers for welcome and awards ceremonies
- Coordinate lunch distribution and clean up (including trash removal)

DAY OF EVENT: DETAILED SCHEDULE

- 7:00AM Arrive at host location; meet host representative
- 7:00AM Set up/registration volunteers arrive (give instructions)
- 8:00AM Proctors arrive - proceed to training room - assign to tests, distribute packets, review instructions for proctoring, review calculator check-out
- 8:00AM Photographer starts
- 8:15AM Students begin to arrive - check in at registration table, put on competition t-shirt and proceed to welcome ceremony
- 8:45AM Welcome Ceremony
Host: Introduction and Welcome
House Rules (restrooms, pick up belongings, treat facility with respect, etc.)
Transition to tests (dismiss calculator tests first)
- 9:00AM Students to testing rooms
Proctors review testing instructions with students
- 9:15AM Math and science tests
Be available for testing questions
- 11:00AM Manage lunch delivery and setup, move lunch for EDC volunteers to training area
- 11:15AM EDC volunteers arrive, proceed to training area, pick up lunch and hold training
- 11:30AM Testing ends
Transition to lunch
Test Scantron answer forms to grading room
Clean up testing rooms
Proctor volunteer shift ends, proctors can stay and eat lunch
Grading takes place in grading room, Create spreadsheet of student placement (1st-6th) for each test
- 12:00PM 2nd photographer/floating volunteer arrives
Complete EDC set-up and material distribution
- 12:15PM EDC begins
Assemble giveaways and awards
- 1:30PM EDC judging begins
After each team finishes and is judged, they go to the raffle table to fill out evaluations
Turn in evaluation for raffle ticket; short activity to keep them while judging continues
- 1:50PM EDC judging ends - EDC judges make final decisions
- 2:15PM Student Activity – optional (science demonstration, STEM speakers, panel discussion, campus tour)
- 2:00PM Volunteers for Awards Ceremony and clean up arrive
- 3:00PM Award Ceremony
Awards for tests
Raffle for door prizes
Announce T-Shirt design contest (volunteers to distribute flyers)
Awards for EDC
Recognize key volunteers
Closing remarks
- 4:00PM Student check-out, Clean up begins

TAME State Office:

Phone: (512) 471-6100
Fax: (512) 471-6797
Email: programs@tame.org

Who can compete at the Divisional Competitions?

To be eligible for TAME Divisional Competitions:

- Students must be active members of a registered TAME Club.
- Students must be in the 6th-12th grade.
- Students must register by submitting a Student Registration Form before the deadline.
- Each student must take a math and science test.
- Each student must participate in the Engineering Design Challenge with their assigned team.

What happens at the Divisional Competitions?

Participants take timed math and science tests that cover topics taught in both core and elective subjects in math and science offered for either middle or high school across the state. Students also compete in an Engineering Design Challenge at the event. In addition to testing student knowledge of math and science concepts, the competition promotes teamwork, leadership, and academic achievement.

How much does it cost?

There is no fee to register or compete in these events.

What happens at the State Competition?

300 high-achieving students qualify to compete in the State STEM competition. Just like the Divisional Competitions, State participants take a timed math and science test. A favorite of many students is the state Engineering Design Challenge, in which we bring together students from diverse backgrounds to engineer a solution to a real-world problem in a timed competitive setting. Students must participate and qualify in a Divisional Competition to receive an invitation to the State Competition.

At the State Competition, TAME sponsors cover all costs, including transportation, food and lodging, and great giveaways and prizes. The Competition celebrates TAME students' achievement in STEM and is a chance to meet like-minded peers and mentors from across Texas.

Statistics and more information

Download a PDF of statistics from the <http://www.tame.org/programs/stem-competitions/tame-competition-results/2017-state-stem-competition#StateStatistics>.

APPENDIX

The following forms and sample emails are available on Box. A link to these files is provided to all chapter coordinators.

Chapter handbook

Chapter handbook

Ceremony powerpoints

Welcome ceremony powerpoint

Award ceremony powerpoint

Engineering Design Challenge

Student instructions

Judge's instructions

Coordinator notes

Presentation to students - powerpoint

Scoring spreadsheet

Judges' choice selection sheets

Table topper team numbers

Forms

Change of test forms

Evaluation - student

Evaluation - volunteer/teacher

Grant application

Sample name tags

Sample press release

Sample student confirmation

Sample volunteer confirmation

Sample volunteer request

Verification of volunteer hours

Testing

Grading Room - Scantron Covers

High School Math Test and Key

High School Science Test and Key

Middle School Math Test and Key

Middle School Science Test and Key

Proctor instructions