



Texas Alliance for Minorities in Engineering

DIVISIONAL STEM COMPETITION HANDBOOK

Revised December 2017

Most recent version available on-line at <http://www.tame.org/chapter-teams/download-forms-materials>

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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 so many 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 (formerly called the Math and Science 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 and an appendix of customizable forms that organizers can use 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) 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 under-represented 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 2016 Competitions held across Texas, 100% of participating students -- more than 52% Hispanic or African-American and 49% female -- were going to college, with 39% of seniors going into engineering and 91% 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. Top-scoring students in the math and science tests and the Engineering Design Challenge at each Divisional STEM Competition receive invitations to compete in the State STEM Competition.

The TAME State Office offers a grant program to cover the cost of T-Shirts, giveaways, awards and lunch for participants.

COMPETITION DETAILS

- The Divisional Competitions are one day events held at a high-school, college or corporate campus.
- Each participant at the competition takes a timed math and science test that corresponds 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 and in the appendix) 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
- Tests (one per student)
- Awards
- Funding for food, if necessary
- Engineering Design Challenge Student Instructions (one per team)
- Forms like proctor instructions, evaluation forms, etc. The forms are included in an appendix at the end of this document. Current versions may be downloaded from the TAME website at <http://www.tame.org/chapter-teams/download-forms-materials>

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

| | |
|-------------------------|---|
| 9:00 - 9:30 a.m. | Check in, Distribution of t-shirts |
| 9:30 - 9:45 a.m. | Welcome Ceremony |
| 9:45 - 11:30 a.m. | Math and Science Exams 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 | Deadline to set 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 |

For current year calendar and dates of the STEM Competitions (Divisional and State) visit the TAME website <http://www.tame.org/chapter-teams>

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 and staff. 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: Classrooms for morning exam. Classrooms should include suitable seating and writing surfaces and seat 30-60 students in each classroom. The total number of classrooms 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 & Awards Ceremony: Welcome and afternoon awards ceremony space to accommodate up to 375 students, volunteers and staff.
- 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: Provide access to A/V equipment like 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. (1-2 volunteers are required per test.)
- Grading Monitor - The Grading Monitor will oversee the grading process to ensure accuracy.
- Test Graders – Typically 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 - The First Aid contact will have the first aid kit and access to the medical release forms for all participants.

TESTING AND GRADING

The TAME State Office provides official tests that must be used at each competition. The tests are all multiple choice and students typically use a Scantron readable answer sheet to mark their answers. The tests cover TEKS through the end of the Fall semester and may be reused year after year. Students are not permitted to take write on the tests or take them home. Scratch paper must be provided for all students.

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

The following tests are offered:

| Tests | Calculators | Periodic Table |
|---|-------------|------------------|
| 6 th Grade Math and Science | Not allowed | Not needed |
| 7 th Grade Math and Science | Not allowed | Not needed |
| 8 th Grade Math and Science | Allowed | Not needed |
| 9 th Grade Math and Science | Allowed | Not needed |
| 10 th Grade Math and Science | Allowed | Provided in test |
| 11 th Grade Math and Science | Allowed | Provided in test |
| 12 th Grade Math and Science | Allowed | Provided in test |

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 achievement, 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 the 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.

CEREMONIES & OUTREACH

A key objective of the STEM Competitions is to recognize and celebrate student success. The welcome and awards ceremonies are designed with this objective in mind. They also serve as inspirational events if 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 included in the addendum. TAME recommends that press releases are sent to all participating school districts highlighting their students' achievement.

STATE STEM COMPETITION: STUDENT SELECTION GUIDELINES

The State STEM Competition will be held in April at a yet to be determined location. 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.

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:

- Reward students for outstanding achievement in math and science
- 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
- Motivate 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
- Review the hotel rooming-list for your chapter to determine how many rooms your chapter is allocated. All rooms have two double size beds and are set up to hold either 4 students or 2 chaperones.
- Each room must have students of a single gender and similar grade-levels (middle school boys, high school girls, etc.).
- Invite the first place finisher in each test offered at your divisional competition.
- Invite all students from first place team in Engineering Design Challenge.
- Select additional students to maximize occupancy in each partially-filled room.
- 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.

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

CHECKLISTS BY TASK

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 in later Winter or early 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.
- **Schedule a workshop for teachers:** 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 Math tests.
- **Invite a guest speaker/panel:** An inspiring engineer, professor, college student or TAME scholar could address participants at the Welcome ceremony. A similar presentation or panel discussion about college and careers in STEM could be scheduled 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 & 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 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 (1 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

- Purchase materials (enough for all participating teams plus a little extra)
- Print instruction sheets for each student team
- 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 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
- Purchase materials for Engineering Design Challenge (EDC)
- 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

WEEK OF THE COMPETITION

- Create name tags with test name and design challenge team number for all student participants
- Create volunteer name tags with time, responsibilities and room number/location
- 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 & forms, EDC bags)
- Set up area for ceremonies (test A/V, awards)

Print, collate and pack:

- Map of facilities
- Registration lists by tests & by last name
- Volunteer lists by activity and last name
- Nametags for all attendees
- Signs for rooms, directions
- Medical information and emergency contact information for students

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

- 7:30AM Arrive at host location; meet host representative
- 8:00AM Set up/registration volunteers arrive (give instructions)
- 8:30AM Greeter/floater volunteers arrive
- 8:45AM Proctors arrive - proceed to training room - assign to tests, distribute packets, review instructions for proctoring, review calculator check-out
- 9:00AM Photographer starts
- 9:00AM Students begin to arrive - check in at registration table, put on competition t-shirt and proceed to welcome ceremony
- 9:30AM Welcome Ceremony
Host: Introduction and Welcome
House Rules (restrooms, pick up belongings, treat facility with respect, etc.)
Transition to tests (dismiss calculator tests first)
- 9:45AM Students to testing rooms
Proctors review testing instructions with students
- 9:45AM Math and science test
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
- 2:00PM 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 a timed math and science test that cover topics taught in both core and elective subjects in math and science offered for their grade level 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 & more information

Download a PDF of statistics from the http://www.tame.org/images/other_images/mscstate2016photos/state-2016-stats-infographic.png.

APPENDIX

The following forms and sample emails are included in this appendix and are available on the TAME website (<http://www.tame.org/chapter-teams/download-forms-materials>).

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TAME DIVISIONAL STEM COMPETITION GRANT APPLICATION PACKET

Thank you for hosting a TAME Divisional STEM Competition. Please submit this application to receive giveaways, awards and funding for the event.

The TAME STEM Competitions prepare students for the rigors of timed tests, encourage creative problem solving and highlight college and careers in science, technology, engineering and math (STEM).

Objectives:

- Establish patterns of success in STEM for minority and female students
- Encourage student participation in academic competition with their peers
- Reinforce the importance of good test taking skills
- Reward students for outstanding achievement in STEM
- Motivate students to continue to strive for academic excellence
- Motivate students to pursue STEM careers
- Remove all financial barriers to participation

Last year, 100% of seniors at Divisional STEM Competitions across Texas enrolled in college and more than 85% planned to pursue a degree in STEM.

With increased participation in TAME programs, the Divisional STEM Competitions are being modeled on the State event. They are designed to be consistent, replicable and scalable across the state. This grant is intended to support chapters as they organize a Divisional Competition. The guidelines for applying are described below. If you have any questions please contact programs@tame.org

Guidelines:

1. Students participating in the competition must be active in a registered TAME Club
2. Each student must submit the [Student Registration Form](#) that is valid for both Divisional and State Competitions. All forms will be turned into and processed by the TAME State Office
3. Competition must use Divisional tests provided by the TAME State Office
4. Competition coordinator must turn in the grant report within 2 weeks of the competition
5. Competition must use the Engineering Design Challenge provided by the TAME State Office
6. In order to be eligible to participate in the State STEM Competition, students must participate in a Divisional STEM Competition

Reporting requirements:

Each grantee is required to use the TAME registration and release forms for the event. Submit the following:

1. Final raw scores for every student
2. Tracking forms completed by all participants
3. Receipts documenting grant expenses
4. In Kind Donation Report

Grant recipients will receive the following items:

1. TAME t-shirt and give-away for each student and registered club leader at the event
2. Divisional Competition Tests
3. Divisional Competition Engineering Design Challenge Instructions
4. Medals for 1st, 2nd, 3rd place test winners
5. Ribbons for 4th, 5th 6th place test winners
6. Ribbons for Engineering Design Challenge 1st, 2nd, 3rd place winners
7. Ribbons for three Engineering Design Challenge Judge's Choice teams

Completed applications are due to the TAME State Office no later than two weeks before your competition.

Email (programs@tame.org), fax (512-471-6797) or mail (10100 Burnet Rd, R9200 Austin, TX 78758).

APPLICATION FORM

| | |
|-------------------------------------|--|
| Chapter name: | |
| Chapter Chair: | |
| Divisional Competition Coordinator: | |
| Coordinator email and phone: | |
| Location of the Competition: | |
| Date of the Competition: | |

PROJECTED EVENT BUDGET

Grant funds cannot be allocated to pay for an employee.

Please work to get in-kind donations and local funding to cover expenses.

Double-click in the appropriate field to enter data in the embedded Excel spreadsheet below. Total cost will be calculated automatically. **Budget must be approved by the TAME State Office before expenditures can be made. Unapproved expenses will not be reimbursed.**

Use local contacts to get in-kind donations whenever possible. The State Office will be able to assist you, if needed.

Reimbursement will be done after receipts are turned into the TAME State Office.

| TAME DIVISIONAL STEM COMPETITION BUDGET | | | | | |
|---|-----------|-----------------|------------|-----------------|-----------------------|
| Item Description | Cost/Item | Quantity Needed | Total Cost | Locally Funded? | In Kind Contribution? |
| Food (Include lunch/ approximately \$3.00/student) | | | 0 | | |
| Supplies (Engineering Design Challenge supplies, Scantrons, nametags, copies etc.) | | | 0 | | |
| Entertainment (Chemistry show, campus tour, etc.) | | | 0 | | |
| Other Expenses (Describe) | | | 0 | | |
| | | | 0 | | |
| | | | 0 | | |
| | | | 0 | | |
| | | | | | |
| | | | | | |

Signature of the Competition Coordinator

Date

SAMPLE BUDGET

| TAME DIVISIONAL STEM COMPETITION BUDGET | | | | | |
|--|-----------|-----------------|------------|---|--------------------------------------|
| Item Description | Cost/Item | Quantity Needed | Total Cost | Locally Funded? | In Kind Contribution? |
| Food - pizza, bottled water, fruit cups, cupcakes for 30 students | \$ 3.39 | 30 | \$ 101.70 | paper goods will be donated by 4-H clubs | |
| Food for volunteers (15 4-H volunteers/ 15 college student volunteers) | \$ 3.39 | 30 | \$ 101.70 | paper goods will be donated by 4-H clubs | |
| Engineering Design Challenge supplies | \$ 2.00 | 8 | \$ 16.00 | | |
| Nametags | \$ 10.00 | 1 | \$ 10.00 | | |
| Paper (per ream) | \$ 5.00 | 3 | \$ 15.00 | photocopying will be donated by 4-H clubs if we provide paper | 4-H volunteers will make photocopies |
| Pencils and scantrons | 0 | 0 | \$ - | Pencils will be donated by a local sponsor | University will donate scantrons |
| Entertainment (Chemistry show) | 0 | 0 | \$ - | Supplies will be donated by University | Show will be donated by University |
| Storage boxes for contest and engineering supplies* | \$ 10.00 | 4 | \$ 40.00 | | |
| First aid kit | \$ 10.00 | 1 | \$ 10.00 | | |
| Total | | | \$ 294.40 | | |
| | | | | | |
| | | | | | |
| | | | | | |

CHAPERONE REGISTRATION AND RELEASE FORM: STATE STEM COMPETITION

PLEASE COMPLETE, SIGN AND SUBMIT TO CHAPTER COORDINATOR TO CONFIRM PARTICIPATION

First & Last Name _____

Address _____

City _____ ZIP code _____ Phone _____

Email address _____

Emergency contact name _____ Emergency contact phone _____

Special dietary needs _____

Please provide the following information by checking the appropriate box.

| <u>Gender</u> | <u>T-Shirt Size (Adult Sizes)</u> | <u>Ethnicity</u> |
|---------------------------------|--|---|
| <input type="checkbox"/> Female | <input type="checkbox"/> Small | <input type="checkbox"/> African American |
| <input type="checkbox"/> Male | <input type="checkbox"/> Medium | <input type="checkbox"/> Asian/Pacific Islander |
| | <input type="checkbox"/> Large | <input type="checkbox"/> Caucasian |
| | <input type="checkbox"/> XL | <input type="checkbox"/> Hispanic |
| | <input type="checkbox"/> 2XL | <input type="checkbox"/> Native American |
| | <input type="checkbox"/> 3XL | <input type="checkbox"/> Other _____ |

MEDICAL INFORMATION

Physician's name _____ Phone # _____

Insurance Carrier _____ Policy # _____

Allergies _____

Pertinent Medical History _____

All chaperones must travel to and from the event with the TAME chapter, in TAME approved vehicles and stay in the hotel room provided by TAME with another chaperone of same gender. Chaperones must participate in all scheduled activities at the State Competition.

RELEASE FORM AND CONSENT FOR TREATMENT

As a participant at the TAME STEM Competition I acknowledge, appreciate, and agree that:

I knowingly and freely assume all risks, both known and unknown, associated with the Competitions and other related activities, even if arising from the negligence of those persons released from liability below, and I assume full responsibility for my participation.

I, for myself and on behalf of my heirs, assigns, personal representatives and next of kin, hereby release and hold harmless TAME, event sponsors, the owners and lessors of premises used to conduct the Competition activities, their partners, members, directors, managers, officers, agents, and/or employees ("Releasees"), with respect to any and all injury, disability, death, or loss or damages to person or property, whether caused by the negligence of the Releasees or otherwise, arising out of or related to the contests and the Competitions.

By signing this Release Form I give TAME and Releasees permission, with no promise or expectation of value in return, to publish photographs and audio/visual recordings of myself in print and electronic media including publication on Releasees' web sites.

I have read this release of liability and assumption of risk agreement, fully understand its terms, understand that I have given up substantial rights by signing it, and sign it freely and voluntarily without any inducement

Signature of participant

Date

STUDENT EVALUATION FORM: 2017 DIVISIONAL STEM COMPETITION

Please help us evaluate the competition by completing this short questionnaire. Rate the following from 1 to 5, with 1 indicating 'least satisfied' and 5 indicating 'very satisfied'

| EVENT EVALUATION | least satisfied 1 | 2 | 3 | 4 | very satisfied 5 |
|--|------------------------------|----------|----------|----------|-----------------------------|
| Testing setup | | | | | |
| Test difficulty | | | | | |
| Lunch and snack | | | | | |
| Engineering Design Challenge | | | | | |
| <i>(CHAPTERS CAN ADD OTHER CRITERIA)</i> | | | | | |
| | | | | | |
| | | | | | |

What was the best part of the day so far?

What didn't work? What would you change?

Thank You!

PROCTOR INSTRUCTIONS

General Information for Tests

Students take one test today. The test they are registered for is given to all students in their grade and is listed on their nametag.

If you have multiple tests in a room, there will be at least one proctor for each test in each room.

All students need to leave the room after the test and take their belongings with them.

What you will find in your testing room

- Multiple tests may be administered in each room.
- Each room has tubs, which contain everything for all tests in that room:
 - Tests, student tracking forms, Scantron forms, pencils, scratch paper, extra batteries, extra Scantron forms and a test roster

Calculators and Periodic Tables

- Testing rooms have been set up to be either ‘Calculator Free Rooms’ or ‘Calculator Necessary Rooms’. You will not be in a room where some tests require calculators while others don’t.
- Students may only use calculators for the following tests -
8th Grade Test, 9th Grade Test, 10th Grade Test, 11th Grade Test, 12th Grade Test
- A periodic table is included as the last page of 10th, 11th and 12th Grade Tests. Periodic tables are not need for any other tests.

Administering the tests

- Students are not allowed to write on the tests. All calculations are to be done on scratch paper provided in the room. Students are not permitted to bring in their own scratch paper. No papers are to leave the room. At the end of the test please collect all scratch paper.
- There is no penalty for an incorrect answer.
- Students should arrive in the rooms for the test around 9:45 a.m. and the tests should start by 10:00 a.m. We need to stay as close to this schedule as possible.
- Students stay in the testing room until time is called and all the tests, calculators, etc. in the room are collected.

Before the Students Arrive (Checklist for Test Proctors)

- Decide where you want the students to sit, based upon the number of students on the roster and the available number of desks. We would like to have an empty seat between students where space allows.
- Verify that you have all of the needed supplies in your tub.
- Place scratch paper, a test booklet (face up with the test name visible to the students), a Scantron sheet, 2 pencils and a calculator (if allowed) at the desks where students will be sitting.
- Tests are color coded with each test cover sheet printed on a different colored paper.
- If you have extra materials, leave them in the tub.
- Once the room is set up, send one proctor to the Welcome Ceremony in the auditorium to escort students to the testing room.

When Students Arrive (Checklist for Test Proctors)

1. As the students enter the room, have them place all backpacks, bags, purses, etc. in a designated area of the room.
2. Multiple tests may be administered in each room, so direct students to the appropriate seats.
3. Remind students that they may not open test booklets or calculators.
4. Remind students to turn off cell phones and put them away. If a cell phone rings/buzzes or a student pulls out their phone while in the room, the phone will be confiscated and the student will be disqualified.
5. When all students are seated, have students legibly write their name, test name, grade, and full name of their school on the right side of the Scantron Form, as shown below. They need to print their first and last names so anyone who isn’t familiar with them can read it.

| | | | |
|---------|-----------------------------|----------|-------|
| NAME | Student First and Last Name | | |
| SUBJECT | Test Name | TEST NO. | |
| DATE | School Name | PERIOD | Grade |

If your test allows calculators, give the students time to open them and test them. Replace any bad calculators/batteries.

Testing

- Have each student complete the Student Tracking Form.
- Collect these forms and place in the tub with the test supplies.

Testing

- One proctor per room will read aloud the appropriate instructions from page 4.
- Begin the test. Note the start time. Students have 1 hour and 15 minutes to complete the test. Please start and end all tests in the room at the same time.
- Once the test has begun, proctors can only answer questions about the directions for the test. No other questions are allowed.
- If there is a big problem that requires a student to stop taking the test for a long enough period of time that it might affect the results, have all students turn over their test and pause until the problem is resolved. Note the time left for testing and restart at that point.
- Please watch the students during the test to make sure they are not writing on the tests or cheating in any way.
- Students who finish before the end of the testing period must remain quietly in the room.
- Announce to students when there are 15 minutes remaining.
- Students may be disqualified for talking or cheating. The proctors in each room will make this determination along with the testing coordinator, if necessary.
- Do not dismiss students until after you have completed the first three steps in After the test, below.

After the test (Checklist for Test Proctors)

1. Have students paperclip their Scantron form to the top of their test. Collect tests and Scantron forms first.
2. Collect the rest of the test materials next. Make sure you collect all calculators, scratch paper and pencils.
3. One proctor in each room reads aloud the information on Page 5 (Read aloud to students AFTER TEST)
4. Dismiss students from room and close door.
5. Make sure all Scantrons are facing the same direction and clip them together.
6. Place the following items in the container for your test
 - a. Any unused items (test booklets, scratch paper, Scantron forms, pencils) – reserve pencils, Scantrons and scratch paper for science tests
 - b. Used scratch paper
 - c. Test booklets
 - d. Test roster
 - e. Change of Test Forms
 - f. Completed Student Tracking Forms
 - g. Completed Scantron forms
7. Keep the items for different tests separated in their individual tubs.
8. A designated test runner will come to your room to pick up your containers of test materials. The runners will be easily identifiable.
9. Clean up and put the room back in order. Put all materials near the door to the hallway. Do not leave until the runner has picked up all test materials.
10. Please join us for lunch in the lobby.
11. If you need a verification of volunteer service hours, please find an event coordinator.

Testing schedule

| | |
|---------------|--|
| 9:45 – 9:50 | Students move to testing room |
| 9:50 – 10:05 | Instructions for test |
| 10:05 - 11:20 | Test |
| 11:20 - 11:30 | Pick up all testing supplies and then release students |

If you are ready to begin testing ahead of schedule, you may start the testing at that point.

Read aloud to students BEFORE TEST:

- Turn off and put away your cell phone. You will be disqualified if your cell phone is out while you are in this room.
- Check that the test you have is the test that you registered for.
- Leave the test booklet closed and wait until I tell you to start.
- Each of you should have a test booklet and a Scantron answer sheet. Make sure you have written your name, test name, full name of school and grade legibly on your answer sheet. **Any answer sheet without this information will be disqualified.**
- Answers must be marked on the Scantron answer sheet with a number two pencil. Let me know if you don't have a pencil.
- Make all your marks neat and dark. If you decide you need to change an answer, please erase it fully and then mark the correct answer carefully. Do not make any stray marks on the answer sheet.
- **You may not mark in the test booklet.** Perform all calculations on scratch paper only. Raise your hand if you need additional scratch paper, a pencil or calculator batteries during the test.
- There is no penalty for skipping a problem.
- Your score will be determined by the number of correct answers. In case of a tie, the student with the most consecutive correct answers from the beginning of the test will place higher.
- If you have any questions at any time, please raise your hand. I will only be able to answer questions about the directions and not about the test material.
- You will not be permitted to leave the test room while the test is in progress. If you finish early, you must remain in the room quietly until the test period is completed. Any student causing a disturbance will be disqualified.
- All tests must be turned in at the end of the testing period. Tests may not be taken from the testing room.
- Your test will contain 40 math questions and 40 science questions. The questions will range in difficulty from easy to very challenging. Most students will not be familiar with all of the material on the test. Please do not be discouraged by this.
- This is a 1 hour and 15 minute timed test. I will announce when you have 15 minutes left to complete your test.
- You may have one minute to test your calculator (if allowed for the test).

Good luck! You may begin.

Read aloud to students AFTER TEST:

- Congratulations! You've completed your test.
- Please remain seated until all testing materials have been collected.
- *Hold further announcements until materials have been picked up.*
- If you need to use the restroom, please do so now.
- Make sure that you take all of your items from this room as you leave.
- Please head to the lobby for lunch.

VERIFICATION OF VOLUNTEER HOURS



RECORD OF VOLUNTEER HOURS

I certify that _____ volunteered for ____ hours at the

TAME Divisional STEM Competition

Held on <<ENTER DATE>> at <<LOCATION>>

TAME Representative

www.tame.org



| TEST CHANGE FORM | | | |
|---|------------|---|------------|
| STUDENT NAME: | | SCHOOL NAME: | |
| MOVED FROM | | ADDED TO | |
| <input type="checkbox"/> 6 th Grade Math & Science Test | Room 2.246 | <input type="checkbox"/> 6 th Grade Math & Science Test | Room 2.246 |
| <input type="checkbox"/> 7 th Grade Math & Science Test | Room 2.246 | <input type="checkbox"/> 7 th Grade Math & Science Test | Room 2.246 |
| <input type="checkbox"/> 8 th Grade Math & Science Test | Room 2.246 | <input type="checkbox"/> 8 th Grade Math & Science Test | Room 2.246 |
| <input type="checkbox"/> 9 th Grade Math & Science Test | Room 2.304 | <input type="checkbox"/> 9 th Grade Math & Science Test | Room 2.304 |
| <input type="checkbox"/> 10 th Grade Math & Science Test | Room 2.312 | <input type="checkbox"/> 10 th Grade Math & Science Test | Room 2.312 |
| <input type="checkbox"/> 11 th Grade Math & Science Test | Room 2.312 | <input type="checkbox"/> 11 th Grade Math & Science Test | Room 2.312 |
| <input type="checkbox"/> 12 th Grade Math & Science Test | Room 2.312 | <input type="checkbox"/> 12 th Grade Math & Science Test | Room 2.312 |
| Teacher/Chaperone Signature: | | Grader Signature: | |



| TEST CHANGE FORM | | | |
|---|------------|---|------------|
| STUDENT NAME: | | SCHOOL NAME: | |
| MOVED FROM | | ADDED TO | |
| <input type="checkbox"/> 6 th Grade Math & Science Test | Room 2.246 | <input type="checkbox"/> 6 th Grade Math & Science Test | Room 2.246 |
| <input type="checkbox"/> 7 th Grade Math & Science Test | Room 2.246 | <input type="checkbox"/> 7 th Grade Math & Science Test | Room 2.246 |
| <input type="checkbox"/> 8 th Grade Math & Science Test | Room 2.246 | <input type="checkbox"/> 8 th Grade Math & Science Test | Room 2.246 |
| <input type="checkbox"/> 9 th Grade Math & Science Test | Room 2.304 | <input type="checkbox"/> 9 th Grade Math & Science Test | Room 2.304 |
| <input type="checkbox"/> 10 th Grade Math & Science Test | Room 2.312 | <input type="checkbox"/> 10 th Grade Math & Science Test | Room 2.312 |
| <input type="checkbox"/> 11 th Grade Math & Science Test | Room 2.312 | <input type="checkbox"/> 11 th Grade Math & Science Test | Room 2.312 |
| <input type="checkbox"/> 12 th Grade Math & Science Test | Room 2.312 | <input type="checkbox"/> 12 th Grade Math & Science Test | Room 2.312 |
| Teacher/Chaperone Signature: | | Grader Signature: | |

SAMPLE EVENT FLYER



DIVISIONAL STEM COMPETITION



Show off your skills, make new friends, and explore your future!

The annual Divisional STEM Competitions are held across Texas in the spring semester each year.

Who can compete at the Divisional Competitions?

TAME students in grades 6 - 12 who are active members of a registered [TAME club](#) can compete in a Divisional Competition.

What happens at the Divisional Competitions?

Participants take a timed math and science test that cover topics taught in the classes offered to students in their grade. Students also compete in an engineering design challenge at the event.

How much does it cost?

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

What happens at the State Competition?

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

Competition Details

Location

Day's Schedule

Contact Information

How do I register?

Registration information is distributed to all TAME Club Leaders. Additional information is available at <http://www.tame.org/programs/clubs>. Contact TAME at programs@TAME.org or 512-471-6100 for registration information.

SAMPLE EMAIL TO VOLUNTEERS

Volunteer Positions: Email [\(contact for volunteer coordinator\)](#) if you can help at any of these times!

Set up/Check in

- Shift time: 8:00 - 10:00 am
- 4 volunteers needed
- Duties: assist with morning set up and host the check-in table

Greeter/Floating Volunteer

- Shift time: 8:30 - 10:30 am
- 2 volunteers needed
- Duties: meet participants as they arrive, guide them to event and assist with additional tasks as needed

Test Proctor

- Shift time: 8:45 -11:45 am
- 14 volunteers needed
- Duties: Administer math and science tests
- Note: A training session will take place prior to the testing on the day of the competition.

Team Design Challenge Judge

- Shift time: 11:15 am - 2:15 pm
- 22 volunteers needed
- Duties: Monitor and judge the Engineering Design Challenge and engage students in conversation about your education and career during lunch.
- Note: A short training will take place prior to the activity on the day of the competition.

Photographer/Floating Volunteer

- Shift times: 9:00 am -12:00 pm or 12:00 pm - 4:00 pm
- 2 volunteers needed (1 per shift time)
- Duties: Take photos throughout the day and assist with additional tasks as needed
- Note: A digital camera will be provided by TAME.

Lunch will be provided.

The schedule for the day is as follows:

| Time | Activity |
|-------------|--|
| 9:00-9:30 | Student check-in |
| 9:30-9:45 | Welcome |
| 9:45-11:30 | Math and Science Test |
| 11:30-12:15 | Lunch |
| 12:15-2:15 | Team Design Challenge |
| 2:15-3:00 | Student Activity (science demonstration, STEM speakers, panel discussion, campus tour) |
| 3:00-4:00 | Awards ceremony |

WE NEED YOU!

SAMPLE CONFIRMATION EMAIL TO REGISTERED STUDENTS

This is confirmation of your registration for the TAME (Chapter name) Divisional STEM Competition.

The competition will be held

- On (DATE Saturday, February 4th 2017)
- At (LOCATION with link to map)

Please arrive at the facility at 9:00AM.

The schedule of this competition is as follows:

| Time | Activity |
|-------------|------------------------------|
| 9:00-9:30 | Student Check-in |
| 9:30-9:45 | Welcome |
| 9:45-11:30 | Math and Science Test |
| 11:30-12:15 | Lunch |
| 12:15-2:15 | Engineering Design Challenge |
| 2:15-3:00 | Student Activity |
| 3:00-4:00 | Award Ceremony |

A few important notes:

LOCATION: (Give specifics on location of the competition. Include building name, check-in spot, parking information with map)

CALCULATORS: (If providing calculators for students - TAME will provide TI-Nspire calculators for students to use for the tests. Students are not permitted to use their own calculators. If not providing calculators – Students taking tests that allow calculators are expected to provide their own calculator.) Calculators **are** permitted for students in the following grades: 8th, 9th, 10th, 11th and 12th grade. Calculators are **not** permitted for students in 6th and 7th grade.

PENCILS & SCRATCH PAPER: TAME will supply students with pencils and scratch paper for the tests. Students are not allowed to bring their own scratch paper.

MEALS: (Customize this depending upon what food you plan to provide.) Lunch will be provided for registered students and volunteers only. Please note breakfast will NOT be served.

ADULTS: Parents/guardians are invited to attend the Welcome, the Student Activity at 2:15 and the Award Ceremony. Any children under the age of 10 must be accompanied by a parent/guardian at all times.

We look forward to seeing you at the competition on (date of competition) for a day of teamwork, leadership, and academic achievement!

Sincerely,

SAMPLE CONFIRMATION EMAIL TO REGISTERED VOLUNTEERS

(Volunteer position or name of volunteer),

Thank you again for being joining the volunteer team!

The competition will be held

- On (DATE)
- At (LOCATION – building name, address)

Please arrive at facility name and room number at starting time for training.

EVENT DETAILS

A brief agenda for the day and parking information are below:

| Time | Activity |
|-------------|------------------------------|
| 9:00-9:30 | Student Check-in |
| 9:30-9:45 | Welcome |
| 9:45-11:30 | Math and Science Test |
| 11:30-12:15 | Lunch |
| 12:15-2:15 | Engineering Design Challenge |
| 2:15-3:00 | Student Activity |
| 3:00-4:00 | Award Ceremony |

PARKING: (Give specifics on location of the competition. Include building name, check-in spot, parking information with map)

Breakfast pastries and pizza lunch will be provided. Please be sure to wear comfortable footwear. We love to have our volunteers wear a shirt representing their company or alma mater.

If you have any questions or concerns, feel free to contact me via email or phone (contact info for volunteer coordinator).

Best,

(name of volunteer coordinator)

<<YEAR>> <<Chapter Name>> STEM Competition

<<Event Date>>

Schedule of Events

| Event Start Time – Event End Time | Description | Location |
|-----------------------------------|------------------------------|----------|
| | Student Check in | |
| | Welcome Ceremony | |
| | Math and Science Test | |
| | Lunch | |
| | Engineering Design Challenge | |
| | Awards Ceremony | |

Competition Hosted By

<<Host Logo/Name>>

Thank you!

The TAME <<Chapter>> also thanks the following for their support -

<<List volunteers, committee members, companies, colleges and community organizations that supported the program>>

SAMPLE NAME TAGS

STUDENT NAME TAG

Spongebob Squarepants

School: Underwater Middle School

Grade: 8th

Team: 10 T Shirt: L



Texas Alliance for Minorities in Engineering

VOLUNTEER NAME TAG

Sandy Cheeks

Treedome Engineering

Design Challenge Judge



Texas Alliance for Minorities in Engineering

2017 TAME Divisional STEM Competition

(**Host City, TX**) – The 2017 TAME **Chapter Name** Divisional STEM Competition was held at **site of competition** on Saturday **date of competition**, 2017. The event, held free of cost to participants, brought together more than **[total # of participants]** student competitors from across the region. Sixth through twelfth grade students from the TAME **chapter name** Chapter competed in individual math and science tests and participated in an engineering team design challenge. The top six students from each test and the top three teams from the Engineering Design Challenge were recognized. Three teams also received special Judges’ Choice Awards for creative problem solving.

The Divisional STEM Competition is organized by The Texas Alliance for Minorities in Engineering (TAME), a statewide 501(c)(3) non-profit organization founded in 1976 that enables Texas students to pursue careers in Science, Technology, Engineering and Math (STEM). In addition to testing student knowledge of math and science concepts, the competition promotes teamwork, leadership, and academic achievement.

We are thrilled to announce that **[# of students]** students from **[School Name]** competed at the event. The following students placed in the competition. Congratulations to all participants!

| First Name | Last Name | Test | Test Rank | Design Challenge Placement |
|----------------|----------------|---|-----------|----------------------------|
| Example | Student | 8th Grade Math & Science | 1 | |
| Example | Student | 12th Grade Math & Science | 2 | Judges’ Choice |

Congratulations!

For more information about the competition, visit www.tame.org. Contact **Event Coordinator**, at **email address**, if you have any questions or comments.

ENGINEERING DESIGN CHALLENGE: SPECIAL AWARDS SCORING SHEET

On a scale of 1 to 10 (10 being the best), rank the teams on innovative use of materials, creative design, teamwork and perseverance. Please add comments and notes as you evaluate teams.

The special awards judges will recognize 3 creative teams that did not win performance awards with a 'Judges Choice Award'.

| Team # | Score | Notes |
|--------|-------|-------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

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| Team # | Score | Notes |
|---------------|--------------|--------------|
| 11 | | |
| 12 | | |
| 13 | | |
| 14 | | |
| 15 | | |
| 16 | | |
| 17 | | |
| 18 | | |
| 19 | | |
| 20 | | |

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| Team # | Score | Notes |
|---------------|--------------|--------------|
| 21 | | |
| 22 | | |
| 23 | | |
| 24 | | |
| 25 | | |
| 26 | | |
| 27 | | |
| 28 | | |
| 29 | | |
| 30 | | |

ENGINEERING DESIGN CHALLENGE: SPECIAL AWARDS SCORING SHEET

On a scale of 1 to 10 (10 being the best), rank the teams on innovative use of materials, creative design, teamwork and perseverance. Please add comments and notes as you evaluate teams.

The special awards judges will recognize 3 creative teams that did not win performance awards with a 'Judges Choice Award'.

| Team # | Score | Notes |
|--------|-------|-------|
| 31 | | |
| 32 | | |
| 33 | | |
| 34 | | |
| 35 | | |
| 36 | | |
| 37 | | |
| 38 | | |
| 39 | | |
| 40 | | |