



Chapter 6 – Technology Student Association™ (TSA™)



MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION
DIVISION OF CAREER EDUCATION

Chapter 6
Technology Student Association
"Learning to live in a technical world"

1 – Introduction

The Technology Student Association (TSA) is the only student organization devoted exclusively to the needs of students interested in technology and engineering. Open to students enrolled in or who have completed technology and engineering courses, TSA's membership includes over 150,000 middle and high school students in 2,000 schools spanning 48 states.

TSA is supported by educators, parents and business leaders who believe in the need for a technologically literate society. Members learn through exciting competitive events, leadership opportunities and much more. The diversity of activities makes TSA a positive experience for every student. From engineers to business managers, our alumni credit TSA with a positive influence on their lives.

2 – Mission

The Technology Student Association fosters personal growth, leadership, and opportunities in technology, innovation, design, and engineering. Members apply and integrate science, technology, engineering and mathematics concepts through co-curricular activities, competitive events and related programs.

3 – Local Chapters

TSA chapters take the study of STEM (science, technology, engineering, mathematics) beyond the classroom and give students the chance to pursue academic challenges among friends with similar goals and interests. Together, chapter members work on competitive events, attend conferences on the state and national levels and have a good time raising funds to get there. Chapter organization develops leadership, as members may become officers within their state and then run nationally. Our chapters are committed to a national service project and are among the most service-oriented groups in the community.

4 – Why Join TSA?

Perhaps the most important benefit of TSA membership is the inspiration and enthusiasm that students gain from receiving recognition for applying their knowledge. Demonstrating skills in a forum beyond school walls motivates students, especially when there is a large, like-minded audience of peers who support them. Other reasons include:

- ◆ enhance technological literacy and leadership skills
- ◆ work on complex activities from start to finish
- ◆ compete on local, state and national levels
- ◆ develop leadership skills
- ◆ meet and work with business and industry leaders
- ◆ attend organized meetings
- ◆ network with students and teachers with similar interests from all over the United States
- ◆ contribute time and effort to a national service project
- ◆ receive national membership services, including the online TSA newsletter, School Scene,
- ◆ receive recognition through TSA's honor society, scholarships and achievement programs
- ◆ have a voice in a national organization that is helping to shape the future of technology and engineering

5 – How to Join TSA

The directions below will guide you through the affiliation process. This year each registered chap-

ter advisor will receive a complimentary High School or Middle School tri-fold, shipped once we have received a purchase order or payment. Hard copies of invoices will not be mailed unless your purchase order specifies a separate billing address. The e-mail confirmation you receive is your invoice. Please give a copy to your accounts payable department.

1. Click on the Chapter Affiliation button.
2. For returning advisors, input username and password to login. New schools and advisors without logins please select “Click Here” to request a login.
3. Input or review your school and membership information.
4. Required fields that must be updated are:
5. Principal
6. Membership Type CAP or Individual
7. Number of Members
8. Hit submit once all information has been entered.

On the Membership Roster page: Note: Once you submit a students name they are a member of TSA and another students name cannot be substituted during the membership year. Spelling corrections may be sent mail to shonour@tsaweb.org.

CAP membership: click on “Input Roster” and you will have the option to download and import a roster template or you may type in student names directly into the system.

Individual membership: click on Input Roster and type in the student names. Hit Save after each student is entered.

All advisors registered during the 08/09 affiliation are automatically included on your registration for this year. Please use the “Add/modify Advisor” button to change your advisors selections for 09/10 affiliation.

Once you have made all your affiliation selections, click on “View Invoice and Payment Screen.”

After reviewing your invoice, if you need to make changes click on the Return to Chapter Information button.

Once you have verified that your invoice is correct, select payment by purchase order or credit card. Once you hit submit your existing chapter information cannot be changed. Please fax your purchase order within three business days.

A confirmation/invoice will be emailed to the address you have already provided. Please submit this emailed invoice to your financial department for payment.

(Visit this web site to register at: <http://www.registermychapter.com/tsa/nat/>)

6 – About TSA

Purpose

The Technology Student Association provides opportunities for leadership development and training through involvement in a variety of activities. TSA promotes technology and engineering as an integral part of the total education system. Knowledge is increased and broadened as members are informed of developments in technology. Student respect is inspired for the dignity of technology in our society. TSA encourages scholastic motivation by providing opportunities to integrate and use the knowledge and skill of other education disciplines.

Chapter activities are considered an essential and integral part of the students' development. TSA

believes that every student should enter a dynamic world as leaders who are technologically literate and possess the ability to solve problems.

How TSA Develops Leaders

TSA uses several methods to help students with personal development. They are the leadership connections program, competitive events, achievement program, and a service projects. Everyone is encouraged to participate.

Leadership Connections Program

Such vital areas as public speaking, chapter team competition, group dynamics and cooperation with others are all essential parts of the TSA program. In addition, the TSA member has the opportunity to take part in local, district, state and national leadership conferences which offer the opportunity to improve on personal excellence. TSA believes students should provide leadership in activities which affect their school, community, work, and nation.

Competitive Events

TSA members compete in a variety of technology categories ranging from Aerospace Technology to Technical Research and Report Writing. There are two levels of competition for grades 6-12. Level I is for 6th through 9th grade and level II is for 9th through 12th grade. During the awards ceremonies the top ten finalist in each event are recognized on the platform and TSA awards the winners in each event with a first, second, and third place recognition.

Technology Achievement Program

The Achievement Program is a self-initiated program designed to motivate students in their technology and engineering programs and to be recognized for their efforts in leadership development, school/community service, understanding of technology, and career/personal planning. It is composed of three levels: bronze, silver, and gold. The first level of bronze is achieved at the local level, the second level of silver is achieved at the state level, and the third level of gold is achieved at the national level. Points are accumulated through a variety of projects and activities.

Service Projects

TSA promotes service to the community by carefully selecting a national organization as its service partner. TSA's partner is now the American Cancer Society. Find out how your chapter can become involved by clicking on: [American Society](#).

TSA chapter activities are an integral part of the school technology and engineering program and provide added dimension to school/community activities. TSA activities enhance the instructor's means of creating technology related challenges that benefit the student. TSA increases the opportunity for individual growth and participation in an environment.

7 – Goals of Technology and Engineering

Because technology is an integral part of the American Culture, it is necessary for schools to provide students with an appreciation and understanding of the role and dynamics of technology in our society. Technology springs from the human abilities to reason, solve problems, create, construct, and use materials imaginatively. The study of technology, integrated into the school curricula, promotes the development of these abilities and prepares students for a fulfilled and responsible adulthood. Technology and engineering goals at the elementary, middle school, and high school levels focus on students acquiring specific abilities and perspectives.

Through the use of tools, materials, and the design and technology process, student learning at the elementary level will be enhanced and contribute to overall personal development and technological awareness.

Students at the middle school level will gain a greater understanding of technology's role in contemporary society, including future career opportunities and related programs of study.

Technological skills and knowledge attained by students at the high school level will yield occupational readiness, consumer awareness, and personal enrichment.

8 – The Benefits to Having a TSA Chapter

TSA Benefits the School

TSA chapter activities are an integral part of the school technology and engineering program and provide added dimension to school/community activities. TSA activities enhance the instructor's means of creating technology related challenges that benefit the student.

TSA increases the opportunity for individual student growth and participation in an educational environment. Some benefits to the school are that TSA:

- ◆ promotes, expands, and improves the total technology and engineering program
- ◆ creates additional means of developing student interest in broad-based learning
- ◆ promotes the school, with visibility provided through school and community projects
- ◆ provides opportunities for students to integrate learning experiences from other instructional areas
- ◆ integrates Career & Technical Student Organization (CTSO) leadership development for meeting fourth cycle MSIP expectations. DESE, Common Standards for Career Education Programs, Standard five (5) http://dese.mo.gov/divcareered/common_program_standards.htm.

TSA Benefits the Student

TSA students have common objectives and interests. Each is learning about his or her role in our technological society.

TSA activities can have a tremendous effect upon the attitudes, growth, and development of each member. An important comparison to make with the *Accreditation Board for Engineering and Technology* ©, ABET Engineering and Technology Standards© reveals many key points that TSA student members are expected to know and be able to do in their study of technology. The ABET© standards require that engineering programs must demonstrate that their graduates have:

- ◆ an ability to apply knowledge of mathematics, science, and engineering
- ◆ an ability to design and conduct experiments, as well as to analyze and interpret data
- ◆ an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- ◆ an ability to function on multidisciplinary teams
- ◆ an ability to identify, formulate, and solve engineering problems
- ◆ an understanding of professional and ethical responsibility
- ◆ an ability to communicate effectively
- ◆ the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- ◆ a recognition of the need for, and an ability to engage in life-long learning
- ◆ a knowledge of contemporary issues
- ◆ an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

To learn more about ABET© Standards go to <http://www.abet.org/>.

For more information about TSA and starting your own school chapter, log onto the Missouri TSA web site: www.motsaweb.org or the National TSA web site: www.tsaweb.org

9 – Official Charter Information

The charter application process is an exciting moment which benchmarks the first steps of achievement in your chapter's historical pilgrimage toward excellence in Leadership. Please read these guidelines carefully to ensure that your chapter application is processed correctly and in a timely manner.

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The following steps are in accordance with the [Missouri TSA Bylaws, Articles of Incorporation](#) , Article III, Sections 1-11. These steps are designed to guide you through the application process and requirements:

- ◆ Adopt local chapter bylaws. (Use Chapter Bylaws Fill-in Form.)
- ◆ Prepare a list of local chapter members for the current year who support the application for an official charter.
- ◆ Prepare a list of your local chapter officers for the current year.
- ◆ Send a copy of your local chapter approved rooster to the State Advisor ONLY along with a copy of your completed official application form.
- ◆ [Sample Chapter Bylaws Fill-in Form](#) (Microsoft Word)
- ◆ [Official Charter Application](#) (PDF)

NOTE: (The completed purchase order should be sent to Missouri TSA,

10 – Steps to Starting a TSA Chapter

There are ten steps to starting a TSA chapter. The following is a brief list of these steps.

1. The organizing committee

This organizing committee is the first step in putting chapter control in the hands of the students

2. The recruitment meeting

To introduce TSA to the other students conducts a recruitment meeting. Use school announcements, bulletin boards, fliers and word-of-mouth to promote the meeting.

3. The membership drive

After planning you will begin your membership drive. Appoint a representative from each classroom to collect dues until officers are elected and you have a treasurer.

4. Officer elections

Hold elections for chapter officers. Keep the election simple. For instance, you could hold a meeting and request nominations for candidates then have a show of hands to elect officers.

5. The officers' first order of business

Hold a meeting of the newly elected officers. The first item of business should be petitioning the state for a charter. First, make sure your school does not already have a charter. If it has, then you don't need another. Find out by calling your state advisor. If you do need a charter you can find a charter application to complete at: http://dese.mo.gov/divcareered/tsa_official_charter_info.htm.

Send the original and a copy of the application along with a copy of your bylaws to your state advisor.

6. Chapter committees

The chapter president establishes their chapter committees.

7. Develop a Calendar of Activities

The chapter's Plan of Action and the chapter's project goals, is a plan for the year. Establish a Plan of Action Committee to come up with the plan and make recommendations to each standing committee. To help chapters develop a Plan of Action you can find a sample on the [Total TSA Chapter Essentials CD](#) available from National TSA.

8. Vote on the Calendar of Activities

Once the tentative Plan of Action is selected, present it to all members for their approval. The program directly influences the TSA year.

9. Get the necessary materials

A well organized TSA chapter uses all of its available resources such as:

- ◆ Chapter officers attending the annual fall Missouri TSA Connections Conference.
- ◆ Becoming familiar with TSA through the use of the TSA web site and the Total TSA Chapter Essentials CD provided to chapters upon completion of the membership affiliation.

10. The advisor's continuing role

TSA's philosophy is that students manage their chapter, so your role is to provide encouragement and enthusiasm to your chapter members and officers.

11 – Curriculum Event Information

Follow the link below to look at: (available on CD version only)

- ◆ [High School Program Event Information](#)
- ◆ [Middle School Program Event Information](#)
- ◆ [Competitive Event Themes](#)

12 – TSA's History

To view the historical information of TSA go to: <http://www.tsaweb.org/History>