



# PLANTING SEEDS FOR STEM SUCCESS

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# BEFORE WE GET STARTED

Register your attendance.

*Complete this form for each session you attend.*

Session numbers  
are in the program.

CAP  
CON  
2024

SESSION NUMBER 753



Rosters

# UIL High School STEM Activities

- Test-taking events
  - Calculator Applications
  - Mathematics
  - Number Sense
  - Science
- Computer Science
- Robotics

**All these competitions have seeds – programs that correspond directly or indirectly – for the younger grades**

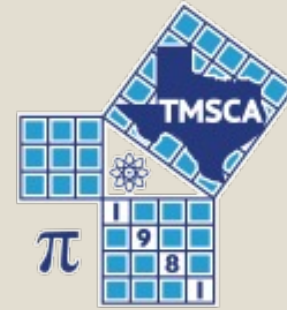
# Maximize the Value of Seeding

- Introduce a healthy approach to educational competition
- Foster a lower stress, lower stakes contest environment
- Provide students a chance to explore
- Build team relationships that may continue into high school
- Develop knowledge and skills foundations
- Encourage school engagement

# UIL A+ Academics

- A+ STEM contests that are very similar to corresponding high school events
  - Calculator Applications – grades 6-8
  - Mathematics – grades 6-8
  - Number Sense – grades 4-8
  - Science – grades 6-8
- A+ competition is local only – students do not advance beyond district
  - A+ districts may or may not follow the high school alignment
- More info available [here](#)

# Texas Math and Science Coaches Association



- Contests very similar in format to UIL events
  - Calculator Applications
  - Mathematics
  - Number Sense
  - Science
- Practice meets for middle school and high school from Oct. through Feb.
- State meets for middle school and high school in March
- Online contests for elementary school including a state contest in April
- More info available [here](#)

# Computer Science and Coding Resources

- Free coding resources for classroom use and independent study
  - [Code.org](https://code.org)
  - [Scratch](https://scratch.mit.edu)
- Coding competitions for younger grades
  - [American Computer Science League](https://www.acslleague.org)
  - [Imagine Cup Junior](https://www.imaginecup.com)
  - [Scratch Olympiad](https://scratcholympiad.com)
- Robotics competitions

# Robotics - BEST

- Open to middle school as well as high school
- Middle school teams cannot compete for UIL championships, but can compete for awards and advancement given by BEST
- UIL composite team option allows middle schoolers to participate with high school teams
  - To be eligible for UIL awards, the team must be high school based with a majority of high school students
- Online information:
  - [BEST National website](#)
  - [BEST National Registry](#)
  - [BEST of Texas](#)



# Robotics – FIRST

- [FIRST Lego League](#)
  - FLL Discover – pre-K – 1<sup>st</sup> grade
  - FLL Explore – grades 2-4
  - FLL Challenge – grades 4-8
- [FIRST Tech Challenge](#)
  - Open to middle school as well as high school
  - Middle school teams cannot compete for UIL championships, but can compete for awards and advancement given by FIRST
  - UIL composite team option allows middle schoolers to participate with high school teams
    - To be eligible for UIL awards, the team must be high school based with a majority of high school students
- Additional online information at [FIRST in Texas](#)

# Robotics – RECF-VEX

- [VEX GO](#) – grades 3-6
  - Project based with mission themes
- [VEX IQ](#) – grades 4-8
  - Teamwork and Robot Skills challenges
- [VEX V5 Robotics Competition](#)
  - Open to middle school as well as high school
  - Middle school teams cannot compete for UIL championships, but can compete for awards and advancement given by FIRST
  - UIL composite team option allows middle schoolers to participate with high school teams
    - To be eligible for UIL awards, the team must be high school based with a majority of high school students
- [Aerial Drone Competition](#)
- Additional information online [here](#) and [here](#)



# THANK YOU FOR ATTENDING

Registration link,  
presentations and handouts  
are available on the website.

*Remember to register your  
attendance for each session.*

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Handouts & More