

SNEAC - Talking Points 2021

Each person introduces themselves (Name, Grade, School, Title/Position, City)

What is FIRST?

- Started 30 years ago by Dean Kamen to inspire kids to become STEM professionals
- Adopted sports model and created four programs (briefly describe each)
 - FLL (K – 8), FTC (7 – 12), FRC (9 – 12)
- Describe what FIRST means to you, e.g., Teamwork, leadership, communication skills, STEM interest/career, making classroom work real, etc.
- Tell your personal and team story
- FIRST works
 - Longitudinal Study from Brandeis University based on 10 years of Data say FIRST Students:
 - 2x more likely to major in engineering or science (41% in engineering)
 - 87% more interested in doing well in school
 - 87% plan to take a more challenging math or science course
 - 89% more interested in going to college
 - 93% increase conflict resolution skills, 95% time management skills, 98% problem solving skills, 76% communication skills
 - 75%+ of Alumni are in STEM field as a student or professional
 - 3x more likely to show gains in STEM interest
 - 2.2x more likely to show gains in STEM Activity
 - 3x more likely to show gains in STEM Career Interest
 - 2.4x more likely to show gains in STEM Knowledge
- Over 615,000 students participated in some 72,000 FIRST teams with 250,000 coaches/mentors/volunteers through 3,000 events
 - Growing every year
 - Over 70,000 people attended the Championship events in Houston and Detroit in April 2019
- Major corporations supporting FIRST and teams (examples of corporate support for your team)
 - FIRST sponsors include more than 200 of the Fortune 500 companies

Personal Experiences on Your Team (Customize to your team and program)

- Each year, FIRST publishes a game challenge and each team has six weeks to design and build a robot that accomplishes the game challenge.
- Students can participate in design, manufacturing, electrical, strategy, business, media, or any number of other areas to make this happen.
- Each team then competes at Regional or District competitions with their robot and for judged awards hoping to ultimately make it to one of the World Championship events (Houston or Detroit).
- We hold trainings year-round in engineering, programming, safety, communications, resume writing and about a dozen others.
- We are also now getting more involved with Advocacy to make sure that everyone has a chance to be exposed to STEM regardless of their background or where they live.

US/State STEM Challenges

- Not enough US STEM graduates & Not Enough Diversity
- Workforce development, national economic security and defense security issue
- To compete in the world economy, we need workers with 21st Century skills
- Robotics, programming, leadership, teamwork, etc.
- In an economic competition where a nation with 19th Century skills will lose
- Some of the enterprises very interested in FIRST students are the Air Force, NASA, Aerospace, etc. - Need STEM, particularly robotics experts and cyber warriors

Request

- (House members only) Co-Sponsor HD.1359 - An Act establishing an elementary and secondary school robotics grant program
 - Provide a Robotics Grant Program in which every public or charter school in Massachusetts
 - Receive up to \$18,000 a year to help fund their robotics team depending on the level of FIRST, VEX, or Science Olympiad.
 - Will help start new and sustain veteran STEM programs in Massachusetts
 - Make it so that money is not a barrier for a public or charter school to run a team.
- (Senate members only) Future support of STEM programs such as robotics
- Current Number of teams in the state
 - 86 FRC teams
 - 67 FTC Teams
 - 193 FLL Teams (total from all levels)

Closings

- Thank them for their past and continued support on the issues you discussed. Thank them for their time. Offer to be a STEM resource for them. Leave materials behind on FIRST and your Team.
- Invite Senator or Member to your school/build site and competitions. Get contact information/business card of scheduler to make that happen.