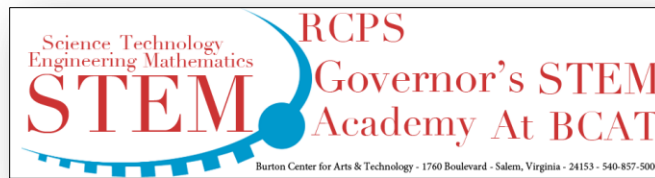


### March 16<sup>th</sup> State School Board Presentation

#### Brief Introduction:

- Grade levels: 9-12
- Programs: Motorsports, Engineering, Mass Communications and Mechatronics/Robotics
- Dual Enrollment: Each of the four program offers dual enrolled courses
- AP classes: Engineering and Mass Communications offer AP courses
- A focus on 21<sup>st</sup> Century skills including Collaboration, Critical Thinking, Creativity and Communication in order to foster student interest and engagement.
  
- **What are you doing to align the high school experience to the graduate's workplace readiness?** The Governor's STEM Academy at Burton Center maintains a long-standing effort to provide real-world opportunities to students which prepares them for higher education and/or the workplace. For example, the Motorsports program has offered students hands-on application of what is learned in class through participation in the National Hot Rodders of Tomorrow Engine Building Contest.
  - Helps students build communication, collaboration and critical thinking skills and emphasizes the need for both technical and soft skills.
  - Competition explanation: A team of five students communicate and collaborate on a complex, highly refined process to disassemble and assemble an engine in the shortest amount of time possible, while avoiding time penalties for errors.
  - Last year's Engine Building team won the national competition in Indianapolis, IN.
  - This year's Engine Building team placed third in the nation (\$36k/student, \$180k overall)
  - Students earned tens of thousands of dollars in scholarships from various trade schools (\$980,000+ in scholarships to trade schools over the course of four years)
  - Devin Roberts turned this experience into opportunity (\$45,000 scholarship paid for student's first year of trade school and part of his room and board)



- **How much planning and outreach had to be done to build partnerships with businesses and higher education?** Longstanding relationships with local businesses and higher education have continued to provide input and direction to programs through individual program advisory groups. General Advisory Committee members use connections to seek additional and relevant stakeholder participation and feedback on current industry standards. Most recently Appalachian Power and Carilion Clinic have been significant additions to our list of General Advisory partners. An example of stakeholder participation is the Senior Engineering EXPO in which business partners provide internships, guidance and authentic presentation opportunities to students. Students complete a project in their internship and present the final product to a group of professionals and to the general public at the EXPO.
- **How would these practices inform and develop a Profile of a Graduate?** Roanoke County Public Schools is currently developing a division-wide profile of a graduate. Many aspects of what students experience in the STEM Academy, and in CTE as a whole in Roanoke County, are being incorporated into that profile. Some of those aspects are Workplace Readiness Skills, 21<sup>st</sup> century skills, problem solving skills and internships/projects in collaboration with industry representatives. Real-world experience is of paramount importance to a graduate's profile.
- **What policy leavers should the Board use/revise to achieve this?** Use policy leavers to encourage local school boards to develop a graduate profile that reflects the needs in their local/regional community(s). As part of that profile, VDOE may encourage inclusion of industry-appropriate CTE programs and credentialing.