



**Avonworth School
District
&
Arconic
Education Corporation
Partnership**

February 27, 2019



Avonworth School District Story

What Resonated with us in 6 Words

Human capital needed for technological innovation!

A little bit about Avonworth and how we see our partnership with Arconic influencing our students!

Avonworth Personal Pathways

Pathway for Innovative Arts & Communications

Pathway for Business, Finance & Entrepreneurship

Pathway for Health & Medicine

Pathway for Public and International Relations

Pathway for Science Technology, Engineering & Mathematics



Learned / Resonated / Actions

- STEM Jobs Increased 2010-2020: all jobs 14%; math 16%; computer systems analysis 22%; software developers 32%; medical scientists 36%; biomedical engineers 62%
- 5 key competencies that are the hallmark of 21st Century Learning
- The Main Principles to drive STEM education
 - Principle 3: STEM education should serve as a bridge to STEM careers.

Avonworth Actions:

- Expanding our Computer Science /STEM Pathway
- Creating opportunities for exposure to STEM related course in the middle school rotations
- More strategic career exposure/introduction in middle school years
- Exploring graduation requirements



Corporate Visit Takeaways

Arconic:

- High level of expertise
- Importance of individual roles/disciplines
- Dependence of each other on Arconic teams for overall problem-solving
- Variety of careers at Arconic

Avonworth Classrooms:

- Many connections were made to our learning outcomes
- Project-based Learning
- Integrated Classes



Teacher Surveys: Important Takeaways

Regular STEM instruction from related-field teachers; some additional exposure through non-STEM related Pathways

Students show a preference for hands-on lessons with practical applications

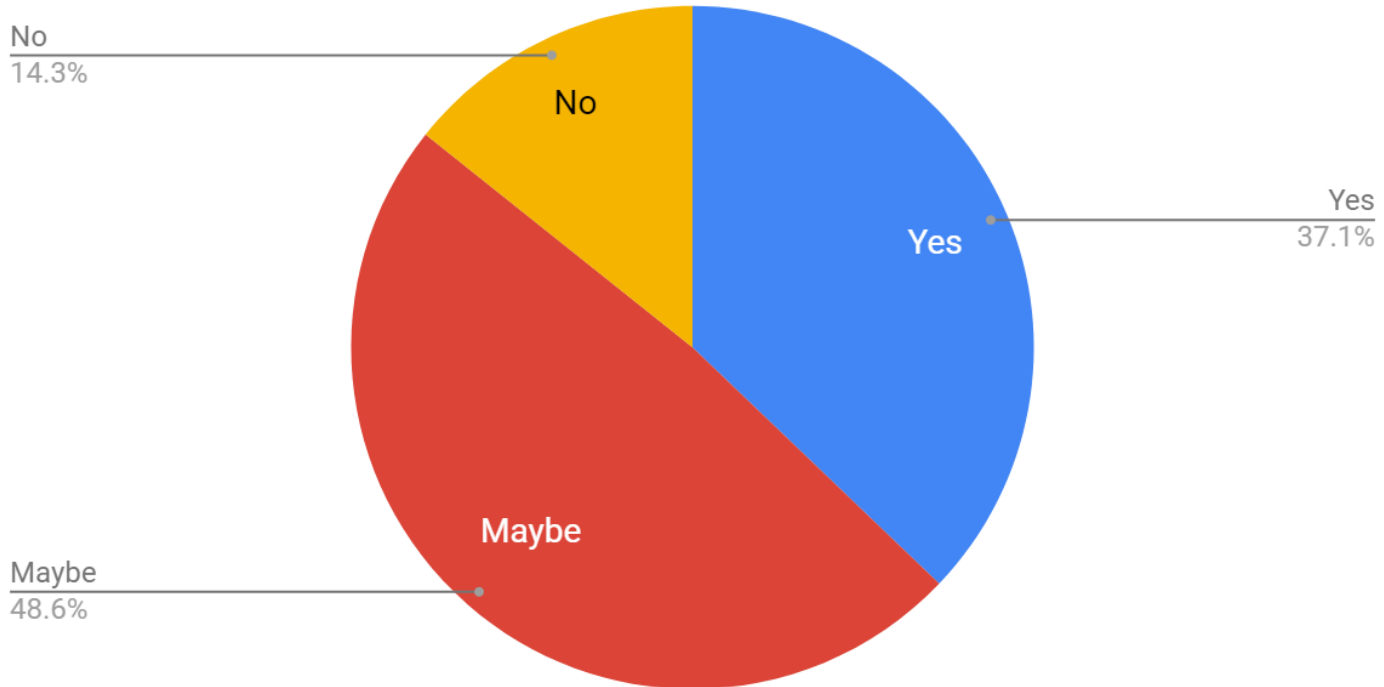
Most of them see a benefit from working with corporate partners, especially in a fairly intensive push-in scenario (i.e. day long activities, student access over time) for both career preparation and curricular support.

The best partnerships would be reliable, ongoing, allow for in-school and on-site interactions, and include lots of dialogue surrounding planning



Middle School Student Surveys: Access to STEM professionals

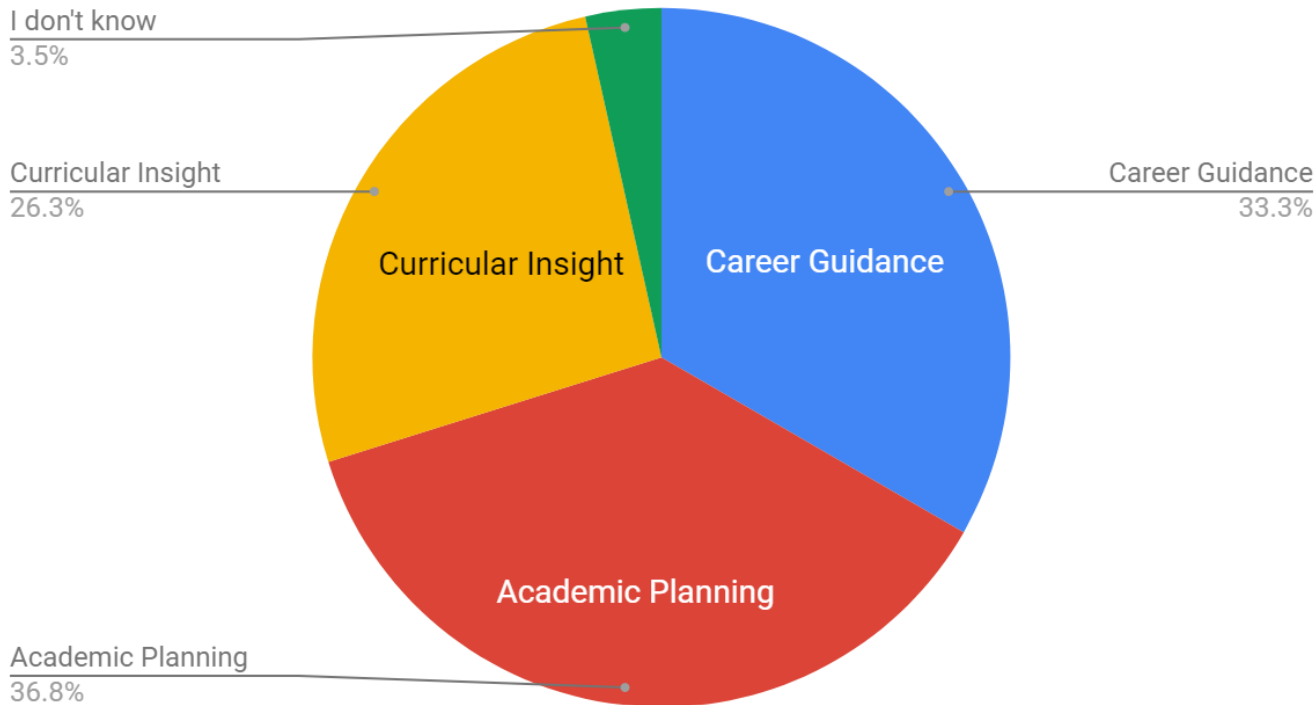
Could you benefit from having access to a professional working in the STEM field?





Middle School Student Surveys: Access to STEM professionals

What do you think a STEM professional could do for you?





High School Student Surveys: Access to STEM professionals

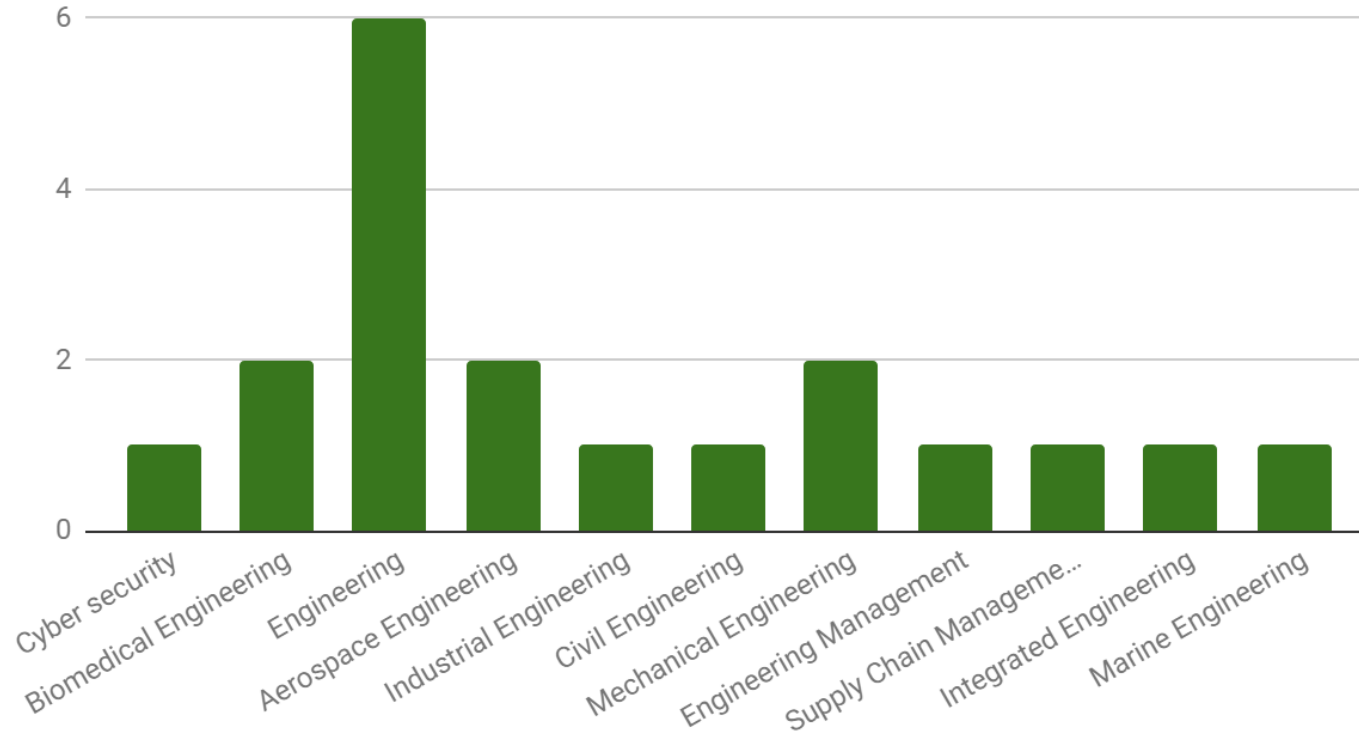
What do you think a STEM professional could do for you?





High School Student Surveys: STEM careers

What kind of STEM-related careers are you interested in?





Partnership Focus Moving Forward

Focus on CEW Standards:

- 13.1 Career Awareness & Preparation
- 13.2 Career Acquisition
- 13.3 Career Retention & Advancement

Arconic Strengths to Bring to Avonworth:

- Women in Engineering
- Next Generation STEM Professionals
- Variety of Careers at Arconic
- Application of STEM Disciplines on Arconic Teams



Partnership Plan Moving Forward

2019-2019 School Year

- Fall
 - Middle School Focus
 - Design Challenge
 - Design Challenge Feedback
 - Career Panel Discussion
- Spring
 - High School Focus
 - STEM Pathway Students (open to others)
 - Arconic Keynote Speaker
 - Career Panel Discussion

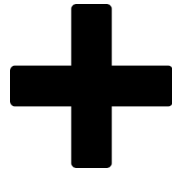


Thank You ECP & Aronic!



ARCONIC

Innovation, engineered.



An increase in
Avonworth student
understanding,
interest, and pursuit
of STEM careers!