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?

- Yes: 37.1%
- No: 14.3%
- Maybe: 48.6%
Middle School Student Surveys: Access to STEM professionals

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

- Career Guidance: 33.3%
- Academic Planning: 36.8%
- Curricular Insight: 26.3%
- I don’t know: 3.5%
High School Student Surveys: Access to STEM professionals

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

- Curricular Insights: 33.3%
- Career Guidance: 33.3%
- Academic Planning: 33.3%
High School Student Surveys: STEM careers

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

- Engineering
- Aerospace Engineering
- Industrial Engineering
- Civil Engineering
- Mechanical Engineering
- Supply Chain Management
- Integrated Engineering
- Marine Engineering
- Cyber security
- Biomedical Engineering
Partnership Focus Moving Forward

Focus on CEW Standards:

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

Acronic 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!

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