

Secondary Innovation and Career and Technical Education

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ISSAQUAH
SCHOOL DISTRICT 411

Purpose

- Clarify the problem(s) the district aims to address through secondary innovation efforts
- Review example innovation efforts that have emerged
- Discuss Career Technical Education (CTE) and facilities connection
- Support Board discussion and direction for next step

What problems do we aim to solve and why innovation?



- We need a system of education that engages all students in relevant and real-world experiences to build a strong foundation for future success
- We need to deliver on greater access and choice for all students to thrive



The Issaquah School District has a history of innovation and community engagement

- First graduates from the Issaquah School District in 1911 were an inspiration
- Under Kateri Brow's leadership from 1987-1992, Issaquah became known as an innovator in technology, well ahead of other districts ¹
- In the 2000's, facilities were adapted to meet college prep learning
- District committed to sustainability in the early 2000's with schools earning Green Building Awards and creating Green Teams
- Sci-Tech Magnet Program offered in three elementary schools
- TEALS (Technology Education and Literacy in Schools) program started in the Issaquah School District in 2009 at Issaquah High School before expanding to hundreds of schools nationally
- Launched Gibson Ek in 2016, a cutting-edge model that is a national leader for innovative education
- In 2020, the first graduate in the nation accepted to college using a new groundbreaking mastery-based transcript was from the Issaquah School District

1. [Issaquah Reporter, October 30, 2009, Remembering champion of our schools, Kateri Brow](#)



TOP 15 SKILLS FOR 2025



Analytical thinking and innovation



Active learning



Complex problem solving



Critical thinking and analysis



Creativity, originality, and initiative



Leadership and social influence



Technology use, monitoring, and control



Technology design, and programming



Resilience, stress tolerance and flexibility



Reasoning, problem solving, and ideation



Emotional intelligence



Troubleshooting and user experience



Service orientation



Systems analysis and orientation



Persuasion and negotiation

Workforce and Wage Data

- Washington STEM Labor Market Credential Data Dashboard - [Labor Market - Washington STEM](#)
- Employment Security Department for Washington State's Occupation in Demand Map - [ESDWAGOV - Learn about an occupation map](#)
- U.S. Bureau of Labor Statistics Fastest Growing Occupations - [Fastest Growing Occupations : Occupational Outlook Handbook: : U.S. Bureau of Labor Statistics \(bls.gov\)](#)

Additional resources:

- MIT's Living Wage Calculator and Typical Annual Salaries for Washington State - [Living Wage Calculator - Living Wage Calculation for Washington \(mit.edu\)](#)
- World Economic Forum – [The Future of Jobs Report 2023](#) - Explores how jobs and skills will evolve over the next 5 years



Graph from Washington State STEM – Labor Market Trend Data (sample data represented)



SECONDARY INNOVATION, COMMUNITY ENGAGEMENT, BOND PLANNING AND CO-DESIGN

Analyze current state of ISD secondary education ✓

Explore and select potential school models

Gather feedback on preliminary school models

Identify high priority initiatives

Formalize proposals and create plan for implementation

Empathy Interviews and Focus Groups ✓

- December-January: Host interviews and focus groups
- January: All quotes and transcripts gathered
- February: Theme Analysis
- March: Incorporate themes into model development

District Leader Innovation Series ✓

- Independent exploration through podcasts, film, articles, publications
- February School site visits and idea generating sessions
- Feedback on models

Community Design Sprint Innovation Series ✓

- February 6 @ SHS
- March 5 @ IHS
- March 7 @ LHS

Bond Planning

- Share current state of secondary education
- Illustrate current and future student possibilities
- Propose school experiences and gather feedback
- Generate iterations based on feedback
- Include recommendations in final proposal



We are here!

Input gathering and engagement summary

	Empathy Interviews	Focus Groups and Interviews	Design Sprints
Purpose	Engage in 1-1 listening sessions to uncover unmet needs.	Utilize a traditional method of gathering input and ideas.	Leverage the expertise of students, staff, community and families through a human-centered design process.
Participation	126 sessions completed by 40 interviewers	8 Focus Groups held with 28 participants 12 individual interviews	50 participants district wide across 3 Design Sprints
Data Collected	967 Quotes collected	Range of similar and different opinions	200+ bright spots in the ISD collected 200+ ideas from brainstorming activities
Process	Listening sessions were held followed by 20 staff analyzed quotes to group into 13 key themes, generating 50+ insights to develop into possibilities	CTE staff, Special Education staff, high school teachers, counselors, principals, cabinet members, and district leaders interviewed by an external organization providing technical assistance	90-minute sessions guided participants through a series of 4 exercises focused on sharing out positive experience(s) in the ISD followed by exploring ideas for re-imagining education for our students
Product or Next Steps	A list of possibilities for the District to determine how to move forward	Informed understanding of the current state of district needs/wants for the future of secondary education	10 main themes identified from the bright spots and 8 concept boards created with ideas for future consideration for secondary innovation

What are we hearing from students, staff, families, and community through our engagement efforts?

Desire for:

- Preserving the district's **strengths** while innovating
- **Relevant** and **real-world** learning opportunities
- Seamless learning between **school, business** and **community**
- Student **choice** and **agency** over what, how, and where they learn
- Strong **connections** and **relationships** between students and adults
- **Collaboration** and **creativity** to solve problems
- Prioritizing student **well-being** and **belonging**

There are many levers for school innovation

How Students Learn

- Flexible schedules
- Grading practices
- Inter-disciplinary
- Problem-based
- Project-based
- Community connection

What Students Learn

- Graduation requirements
- Content and curriculum choices
- College and Career prep
- AP and IB
- Real world learning

Climate in Which Students Learn

- Student voice and agency
- Relationships
- Mental health supports
- Learning spaces and environment
- Family partnerships

How students learn - System and Structure Examples

Examples of providing greater scheduling flexibility and agency to students

Example 1: flexible use 3-period block after lunch



Example 2: January term for deep exploration



Overview

Students can use the final 3 periods of the day for a variety of purposes, including: taking traditional courses, going off campus for work or study, completing self-directed work, engaging in inter-disciplinary courses, or seeking extra help and support

While maintaining a 6-period schedule for much of the year, students could access a 1-month term (e.g., January) where students spend their class time completing a deeply focused one month course and project for 1 credit

Benefits to students

Agency in determining what they study and how they use their time; opportunity for students to engage in a wide variety of activities and learning styles both on and off-campus

Agency in determining what they study and how to complete their projects; options for cross-school learning; deeper learning in a course connected to high student interest; opportunity to identify and develop a passion or deeper learning

What students learn - Teaching and Learning Examples

Examples of providing real world learning opportunities across all high schools

Example 3: Credentials earned upon graduation through course choices



Overview

Upon graduation, students can leave with credentials, certificates, or work experience that can provide multiple options for post-secondary college or career pathways. Certificates such as paraprofessional, nursing assistant, or forklift operator are examples

Benefits to Students

Students can leave high school prepared for high wage employment and economic mobility; free job readiness skills and credentials

Example 4: Partnerships between professionals in the community and student experiences



Students have opportunities for real world learning through shadowing, internships, or work experience related to careers of their choice while in high school. Students can also work with businesses to develop real world solutions and projects

Students make informed choices for post-secondary; real world learning experience; authentic experiences connecting school to real-world; professional learning opportunities

Summary of March 4 board retreat

Areas of convergence

- Strong appetite for targeted innovation while preserving the district's strengths, particularly in academics
- Recognition and agreement of the district's strengths (tradition of strong academic programming) and challenges (learning gaps, workforce/career pathways, behavioral health)
- Strong alignment for strengthening workforce connections and CTE programming at all high schools
- Momentum for increasing student agency over what, how and where they learn
- Enrollment policy is a critical strategic decision for the ISD

Open questions

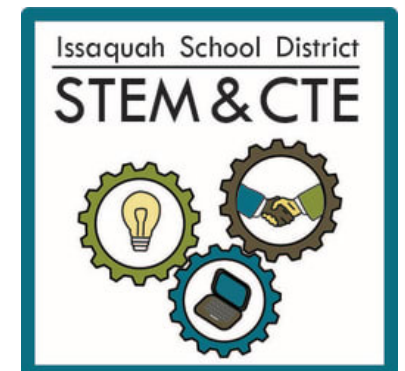
- What are students learning (content, skills, competencies, college and career preparation)?
- How are students learning (location, choice, schedule, method)?
- What spaces are necessary to support alignment around the "what", the "how" and the "climate" for learning?

Other thoughts or reflections from the board?

Innovation through Career and Technical Education

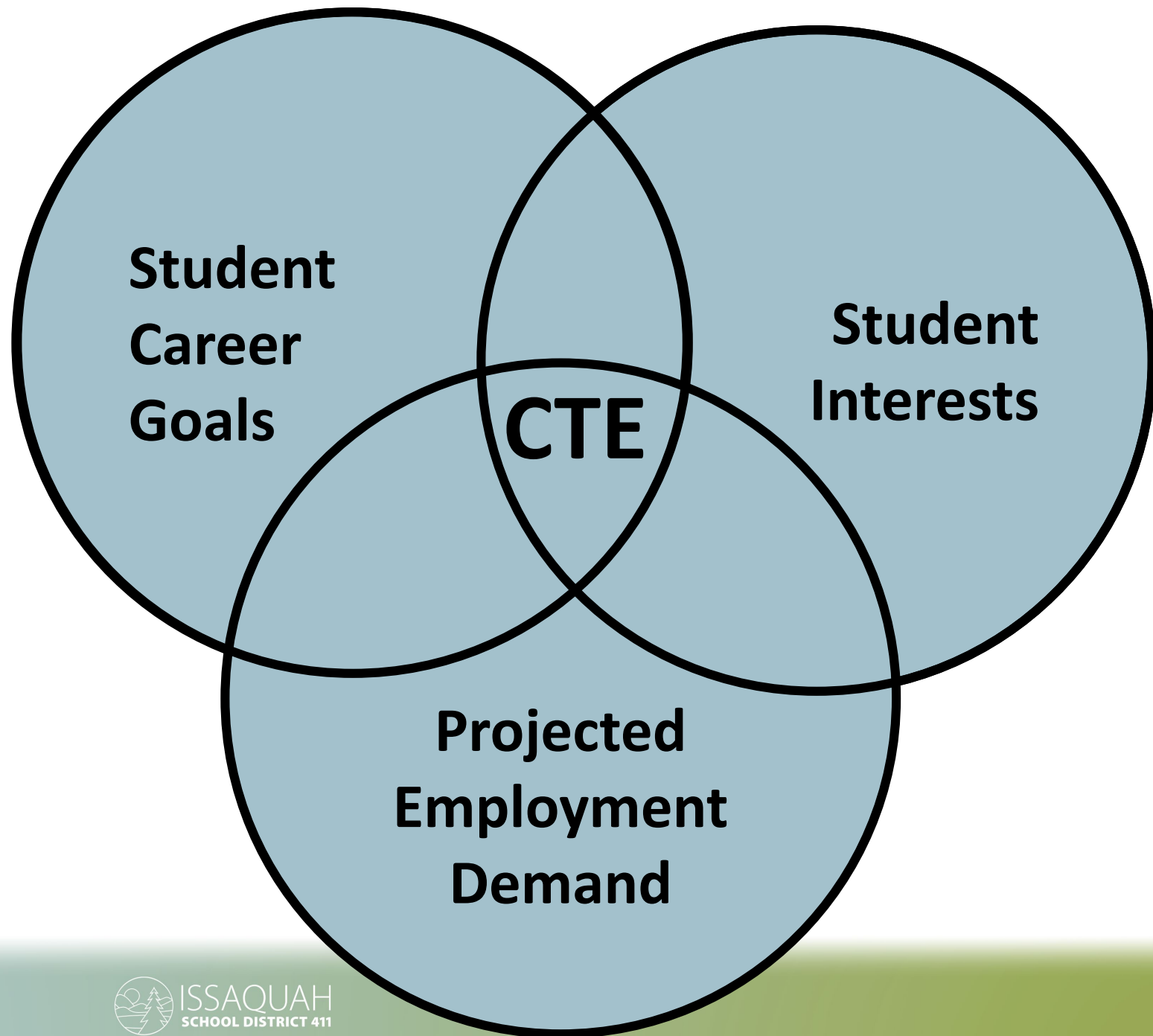
What is CTE and how is it connected to the goal of students building a foundation for their futures?

Career & Technical Education (CTE) courses prepare students for the workforce across a wide range of industries and occupations.



What drives CTE?

- Students explore and prepare for career goals.
- Students to pursue subjects of interest.
- Students find a path to careers with high employment demand and livable wages.



Job Title	Number of students interested (Xello data)	Employment demand through 2031 (ESD.wa.gov)	Median Annual Wages (ESD.wa.gov)
Lawyer + Criminal Lawyer	787	↑ .93%	\$174,420
Professional Athlete	715	↑ + 2 jobs*	No data
Aerospace Engineer	473	↑ .17%	\$138,400
Software Engineer	461	↑ 2.73%	\$155,680
Animator	443	↑ 3.26%	\$94,650
Doctor	437	↑ 4.49%	\$223,710
Actor	437	↓ -.65%	No data
Psychologist	424	↑ 1.57%	\$105,020
Fashion Designer	377	↑ .06%	\$97,140

Career Clusters

Cluster Pathways

Course Offerings

**Career clusters
also drive
CTE course off
erings**

CTE Courses in the ISD by Career Cluster*

Middle School Career Clusters

- Hospitality
- Health Science
- Information Technology
- Science, Technology, Engineering and Math

High School Career Clusters

- Architecture and Construction
- Manufacturing
- Arts, AV Technology and Communications
- Finance, Business and Marketing
- Education and Training
- Health Science
- Hospitality
- Human Services
- Information Technology
- Law and Public Safety
- Science, Technology, Engineering and Math

*Career Cluster is defined at the federal level and contain occupations in the same field of work that require similar skills.

Career Pathways

What is a pathway?

- The sequence of courses, or training, which leads a student through high school and post-high school training options to a future career.

Pathway may include:

- High School Courses
- Certifications
- Job training through military service
- Apprenticeships
- Community or Technical College
- 4-year degree or more

CTE course offerings within career pathways









Course examples currently offered for Human Services pathway

- IB Personal and Professional Skills
- Applied Algebra 1, 2
- Teaching Academy 1, 2
- Future Ready
- American Sign Language 1, 2, 3
- Introduction to Culinary Arts and Culinary
- Fashion Design and Merchandising 1, 2
- Child Development
- Food Science
- AP Psychology

Enhancing CTE opportunities across all high schools

Pathways and Curriculum

Sample pathway options to explore through CTE and Secondary Innovation

Advanced manufacturing pathway	Business services pathway	Infrastructure engineering pathway	I.T. and STEAM pathway
			
<p>Careers</p> <ul style="list-style-type: none"> • CNC Machinist • CNC Programmer • Electromechanical Technician • Manufacturing Technician • Production Technician • Quality Inspector • Material Handler • Tool and Die Maker <p>Industry Certifications</p> <ul style="list-style-type: none"> • National Institute of Metalworking Skills (NIMS) Job Planning, Benchmark and Layout Credential • National Institute of Metalworking Skills (NIMS) Measurement, Materials and Safety Credential 	<p>Careers</p> <ul style="list-style-type: none"> • Project Manager • Sales Associate • Social Media Specialist • Marketing Associate • Human Resource Specialist <p>Industry Certifications</p> <ul style="list-style-type: none"> • Certified Associate Project • RISE Up Customer Service and Sales Professional 	<p>Careers</p> <ul style="list-style-type: none"> • HVAC Technician • Forklift Operator • Electrician • Carpenter • Plumber • Roofer • Landscaper • Drywall <p>Industry Certifications</p> <ul style="list-style-type: none"> • Occupational Safety and Health Administration (OSHA) 10-Hour Card • Home Builders Institute (HBI) Pre-Apprenticeship Certificate Training (PACT) • National Center for Construction Education and Research (NCCER) Credentials 	<p>Industry Certifications</p> <ul style="list-style-type: none"> • Network Administrator • IT or STEAM Educator • Mechanical Engineer • Computer Engineer • Product Designer • Data Analyst • Game Designer • IT Support Specialist <p>Industry Certifications</p> <ul style="list-style-type: none"> • Certified SOLIDWORKS Associate (CSWA) • Certified Additive Manufacturing Associate (CSWA-MA) • CompTIA A+, Network+ • TestOut PC Pro, Network Pro
Hospitality and tourism pathway	Health and wellness pathway	Transportation pathway (Automotive)	Transportation pathway (Aviation)
			
<p>Careers</p> <ul style="list-style-type: none"> • Executive Chef • Food Stylist • Marketing Director • General Manager • Catering Director • Executive Housekeeper • Restaurant Owner • Pastry Chef <p>Industry Certifications</p> <ul style="list-style-type: none"> • ProStart National Certificate of Achievement • ServSafe National Restaurant Association Certifications • American Hotel and Lodging Educational Institute (AHLEI) Certifications • American Culinary Federation (ACF) Fundamentals Cook Certification 	<p>Careers</p> <ul style="list-style-type: none"> • Physical Therapist • Registered Nurse • Counselor • Psychiatrist • Pharmacist • Social Worker • Occupational Therapist • Health Science Educator <p>Industry Certifications</p> <ul style="list-style-type: none"> • Behavioral Health Technician Certificate • Certified Nurse Aide Certificate • CPR/First Aid, AED Certificate • Pharmacy Technician Certificate 	<p>Careers</p> <ul style="list-style-type: none"> • Automotive Technician: local repair shop, dealerships, fleet maintenance, specialty shops <p>Industry Certifications</p> <ul style="list-style-type: none"> • Snap-on: Multimeter, Torque, Precision Measurement, Scanner and Diagnostics, Wheel and Alignment, Starting and Charging, Pro-Cut Rotor Machining • Automotive Service Excellence (ASE) Entry-Level Certifications: Maintenance and Light Repair, Automobile Service and Technology 	<p>Careers</p> <ul style="list-style-type: none"> • Aircraft Mechanic: major airlines, flight schools, air ambulance, cargo aircraft, corporate jets <p>Industry Certifications</p> <ul style="list-style-type: none"> • Federal Aviation Administration (FAA): Mechanic Certificate with Airframe and Powerplant Ratings

Focus: High Demand Careers in WA

Job Title	Number of students interested (Xello data)	Employment demand through 2031 (ESD.wa.gov)	Median Wages (ESD.wa.gov)
Nurse	205	↑ 1.93%	\$105,540
Networking & Cybersecurity	105	↑ 3.51%	\$136,430
Pharmacist	94	↑ 1.1%	\$141,910
Construction Manager	56	↑ 1.47%	\$127,650
Automotive Mechanic	53	↓ -.13%	\$59,670
Manufacturing Technician	11	↑ .28%	\$66,050
EV/ Motor Mechanic	Not available in Xello.	↑ .72%	\$59,240

Health Sciences Expansion

Through facility upgrades and remodels, expand offerings to include options such as **nursing and pharmacy**.



Similar access across the district to high quality learning spaces

Information Technology Expansion

- Currently offer Cybersecurity in a virtual environment.
- Bond could add **networking** server racks and spaces for students to learn how to build and protect computer networks.

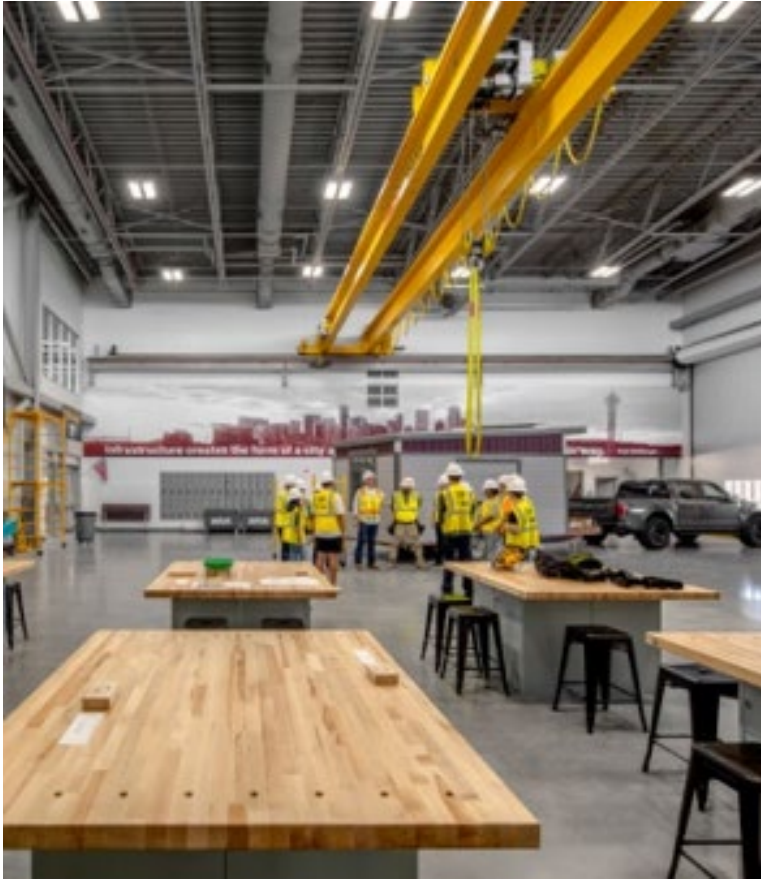


Manufacturing and STEM Expansion



Upgrade and add equipment to allow students pursuing engineering to have a strong foundation in manufacturing principles.

Architecture and Construction Expansion, Add Transportation, Distribution and Logistics



Upgrade and remodel facilities to include Construction and pre-apprenticeship. Add facilities for EV and Automotive Repair courses with an ASE certification.



Add Agriculture, Food and Natural Resources



Expand facilities to allow addition of agriculture and sustainability courses to prepare students for high demand careers in these areas.

Board discussion

What questions does the Board want to discuss?

What career pathways connected to facilities are most important to the Board to inform further research and viability?

Next Steps

We are gathering input on the building specific needs based on the "what" and "how"

- Gather open-ended feedback from students on preferences
- Layer in additional input based on the top student preferences from families, staff and community
- Integrate this input with the work of the bond advisory committee
- Identify high priority initiatives and develop plan for implementation