



Making High School More Relevant for Students: Career Pathways

Background information to the School Board - August 16, 2019

In the fall of 2017 grade reconfiguration in Stillwater Area Public Schools was completed, allowing Stillwater Area High School (SAHS) to serve students in grades 9-12. In addition to adding approximately 700 ninth graders to the school, we also welcomed approximately 30 new staff members. As such, we began to work together as a staff to determine the new identity of our high school, beginning with a careful examination of our strengths and areas for growth. Following that examination, we formed three Vision Teams (which include both staff and students) to consider how we could better meet the needs of our student, including one team that was dedicated to improving the academic experience for ALL SAHS students.

Using the Human-Centered Design Thinking approach, this team began working in earnest in the spring of 2018. After extensive Empathy work that involved a survey of dozens of SAHS students about their high school experience, three goals emerged:

- Increase student **ACHIEVEMENT** for the “majority in the middle”
- Prepare students for the future by increasing **OPPORTUNITIES** to engage in a variety of passion and interest-based offerings
- Offer programming that allows all students to find **RELEVANCE** in their coursework.

After visiting and researching multiple school districts (including Alexandria, Mounds View, White Bear Lake and Burnsville) that offer a **PATHWAYS** (often called “career pathways” or “career clusters”) program, the team selected this concept as a model to address these goals. A **PATHWAY** can be defined as a series of “*structured and connected education programs and support services that enable students, often while they are working, to advance over time to better jobs and higher levels of education and training.*” (Dion, 2018)

The team has identified four areas as potential **PATHWAYS** at SAHS:

- **BUSINESS**
- **HEALTH SCIENCES AND HUMAN SERVICES**
- **ENGINEERING, MANUFACTURING, TECHNOLOGY, AND NATURAL RESOURCES**
- **ARTS**

Within each **PATHWAY**, multiple **PROGRAMS OF STUDY** emerged. While the term **PATHWAY** for our purposes represents a broad classification, **PROGRAMS OF STUDY** represent more specific progressions under each **PATHWAY** heading. For example, the ARTS Pathway could include Programs of Study in “Performance,” “Fine Arts,” and “Journalism & Communications.”



The Vision Team has conducted a comprehensive course audit of all electives in the high school curriculum in order to align existing courses to specific **PROGRAMS OF STUDY**. As this audit progressed, an important guiding principle was the idea of alignment to **PATHWAYS** offered at regional post-secondary institutions (Century College, University of MN, St. Thomas University).

Additionally, the team conducted a quantitative analysis of each **PROGRAM OF STUDY** in order to assess health and viability as each **PROGRAM OF STUDY** should include a natural 9 - 12 grade progression of courses, early college credit opportunities, community partnership opportunities, and offer alignment to jobs and careers that are in demand and allow students to earn a living wage. While some of the draft **PROGRAMS OF STUDY** are already robust, there are also some that should be considered under development for another 1 -2 years before we can confidently offer them to students and families as a viable **PATHWAY** experience.

Partnering with our community is another important component of the **PATHWAYS** concept. We've already been in conversation with both the Greater Stillwater Area and the Woodbury Area Chamber of Commerces, and have met with a number of community businesses and professional organizations that have expressed a strong interest in partnering with the school district to develop solid work-related experiences for our students. These opportunities would align with our proposed **PATHWAYS/PROGRAMS OF STUDY** and provide the relevance our students desire.

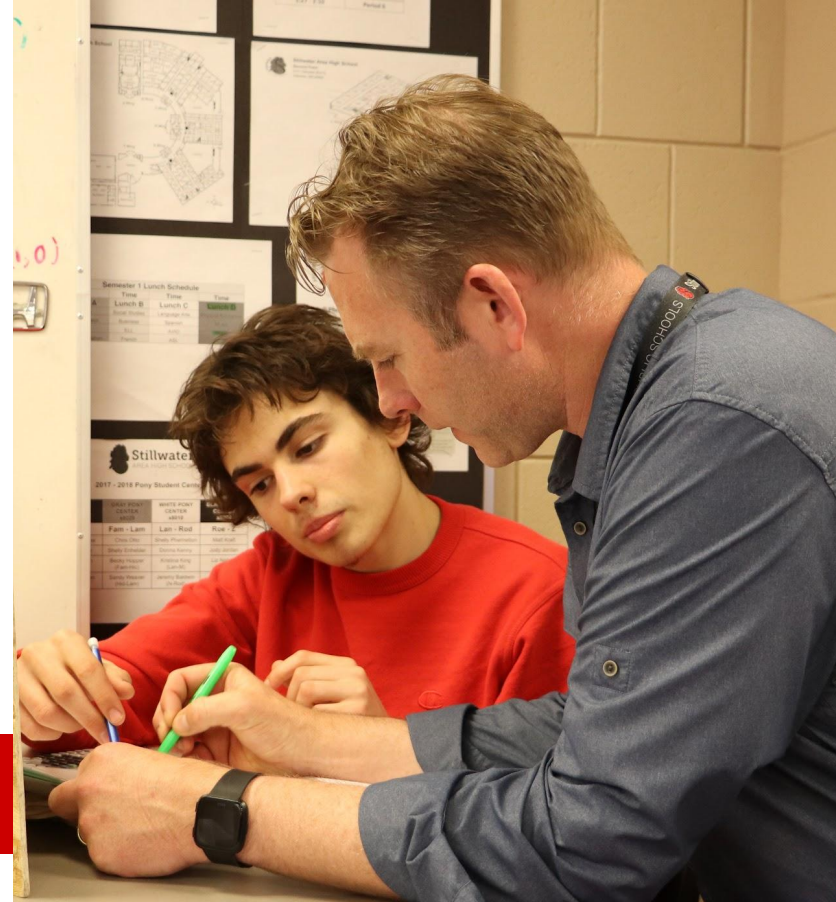
Going forward, it is our hope to repackage our existing course registration guide to reflect the proposed **PATHWAYS** and **PROGRAMS OF STUDY**, so that students and families are more aware of how the SAHS curricular offerings offer relevance and opportunities to experiences outside of the traditional classroom. This will require support from the School Board, the SAHS staff, and the entire school district community.

“Why Do I Need To Learn This?”

Making high school
more relevant

CAREER PATHWAYS

School Board Work Session - August 20, 2019



Stillwater
AREA PUBLIC SCHOOLS

beyond just

Doing well in preparing students for 4 year secondary education.
Need to improve opportunities for secondary education options
that are not 4 year.

Gap between what many students needs and interests are. Missing
chances to align better with job market and financial capacity of
students to attend.

Community Members

4.0 ★★★★★ (65 👤)



Actual comments from Thoughtexchange participants - May 2019

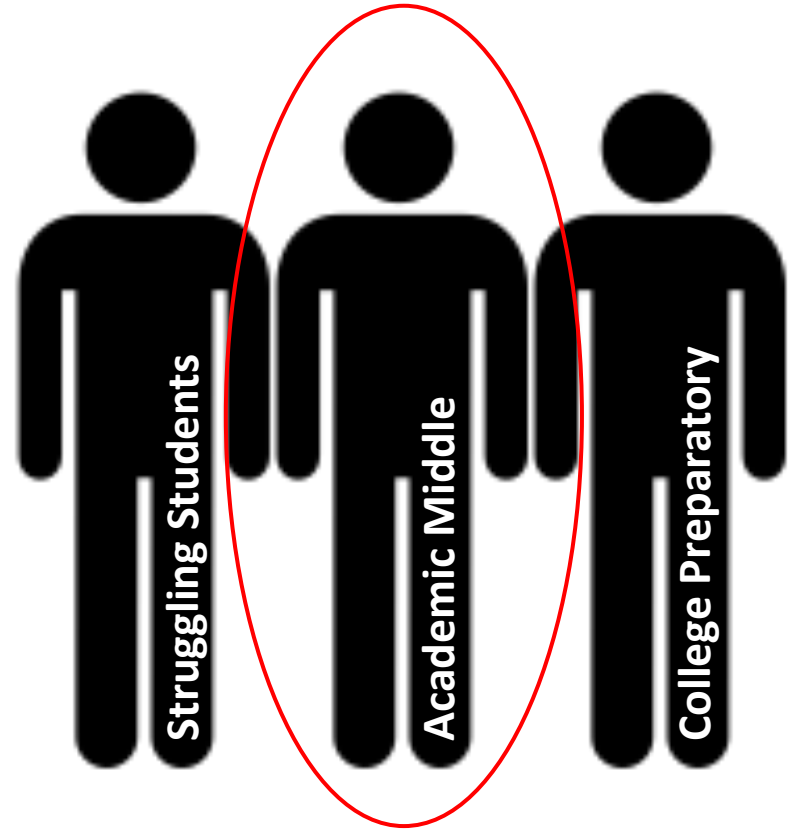
SAHS

Innovation Team

Designing With Students in Mind

The team's objective is to redesign the high school experience to better meet the needs of ALL students.

Innovation Team includes teachers, students and administrators



Empathy Work Completed 2018-19

Students feel ...

- **overwhelmed** with the amount of homework.
- there is **not enough time** to do work.
- like there aren't enough extended learning opportunities (beyond school offerings).
- like they do not understand what **skills are needed beyond high schools**, and/or qualify as skills instruction.
- like they don't have **enough time** in their schedule or that the schedule is flexible enough.
- unaware of the **relevance of our course offerings**.

Our Plan to Redesign SAHS

Academic Achievement	Relevance	Opportunities
Meeting the needs of <u>ALL</u> student with renewed focus on the “academic middle”	Developing career pathways and programs of study based on industry and regional college programs	Creating options for students to apply experiential learning through partnerships with local businesses

What Are Career Pathways?

- Pathways let students explore a variety of careers through specific coursework aligned to industry and regional college programs.
- Exploration continues with opportunities that allow students to follow their interests and prepare for further study, training or work experiences.
 - These opportunities may lead directly to careers or to a variety of post-secondary options.

Example: Mounds View Public Schools






Engineering, Manufacturing & Technology Pathways

Mounds View Public Schools offers our students the opportunity to explore a variety of careers through specific coursework aligned to industry pathways. Exploration continues with exposure to industry experiences that allow students to follow their interests and prepare for further study, training or work opportunities. These opportunities may lead directly to careers or to a variety of post-secondary options.

Working directly with their deans, students can enroll in one or more recommended pathway core courses depending on interest areas. Some of these courses offer the opportunity to earn free college credit. The intent of pathways is to offer students the opportunity to explore different careers prior to graduating from high school.

INDUSTRY SECTOR: Engineering, Manufacturing & Technology

 COMPUTER-CONTROLLED MACHINE TOOL OPERATORS WAGE \$22 /HR <small>OUTLOOK: THIS CAREER IS CURRENTLY IN VERY HIGH DEMAND. EDUCATION: HIGH SCHOOL DIPLOMA OR EQUIVALENT</small>	 INDUSTRIAL MACHINERY MECHANICS WAGE \$27 /HR <small>OUTLOOK: THIS CAREER IS CURRENTLY IN VERY HIGH DEMAND. EDUCATION: POST SECONDARY CERTIFICATE OR DIPLOMA</small>	 ELECTRICAL ENGINEERS WAGE \$46 /HR <small>OUTLOOK: THIS CAREER IS CURRENTLY IN VERY HIGH DEMAND. EDUCATION: BACHELOR'S DEGREE</small>
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Our Vision for Pathways

- **Business:** Entrepreneurship/Marketing/Management
- **Arts:** Performance, Fine Arts, Communications
- **Engineering, Manufacturing, Technology, and Natural Resources**
- **Health Sciences and Human Services**

Align our
current course
offerings within
Pathways

4 Path

Health Sciences & Human Services

* It is recommended that students attending a 4 year private college, complete 3 years of a World Language.

	Biotechnology & Medical devices	Health Care	Exercise Science	Education	Public & Human Services
Grade 9	<ul style="list-style-type: none"> Human Anatomy & Medical Terminology 	<ul style="list-style-type: none"> Anthropology Animal Care and Management Human Anatomy & Medical Terminology 	<ul style="list-style-type: none"> Personal Fitness Fitness for Life Human Anatomy & Medical Terminology 	<ul style="list-style-type: none"> Speech Unified PE 	
Grade 10	<ul style="list-style-type: none"> Personal Fitness Fitness for Life 	<ul style="list-style-type: none"> Personal Fitness Fitness for Life Veterinary Science 	<ul style="list-style-type: none"> Food Science Weight Training 		<ul style="list-style-type: none"> Law and Justice Fish and Wildlife
Grade 11	<ul style="list-style-type: none"> Weight Training Biotechnology 	<ul style="list-style-type: none"> Biotechnology Fish and Wildlife Psychology 1 Psychology 2 Team Sports AP Psychology CIS Human Physiology Chemistry AP Chemistry 	<ul style="list-style-type: none"> Advanced Weight Training 	<ul style="list-style-type: none"> Psychology 1 Psychology 2 AP Psychology 	<ul style="list-style-type: none"> Psychology 1 Psychology 2 AP Psychology Sociology
Grade 12	<ul style="list-style-type: none"> 916 Medical Careers CIS Human Physiology AP Statistics 	<ul style="list-style-type: none"> Sociology CIS Animal Science 916 Medical Careers 916 Dental Occupations 916 EMT 	<ul style="list-style-type: none"> CIS Human Anatomy & Physiology 	<ul style="list-style-type: none"> Sociology 916 Careers in Education CIS Exploring the Teaching Profession 	<ul style="list-style-type: none"> 916 Law Enforcement Criminal Justice 916 Cosmetology 916 EMT Photography 1
After School Opp.			<ul style="list-style-type: none"> Pony Power Rock Climbing Club MSHSL Sports 	<ul style="list-style-type: none"> Senior Council Student Council Prom Planning Mock Trial 	<ul style="list-style-type: none"> Senior Council Student Council Prom Planning Young Democrats Young Republicans Bizaa Amnesty International Model UN Mock Trial

• Countryside Photo

Resources

Language.

Computer Science
<ul style="list-style-type: none"> Geometry with Computer Science
<ul style="list-style-type: none"> AP Computer Science Principles
<ul style="list-style-type: none"> AP Computer Science A & B
<ul style="list-style-type: none"> Computer Science Advanced Topics

Our Work to Develop Viable Pathways

Marketing, entrepreneurship, business management, administration and finance	Performance arts, fine arts and communications	Engineering, manufacturing, and mechanics	Human Services	Natural Sciences, Health Sciences, and Technology
Animal Care and Management	Foundations of Art	Biotechnology	Biotechnology	Animal care and management
Natural Resources	Clay/Sculpture I & II	Introduction to Business	Photography I & II	Veterinary science
Graphic Design	Graphic Design I & II	Geometry with Computer Science A & B	Personal Finance	Biotechnology
Photography I & II	Drawing I & II	AP Computer Science Principles A & B	CIS Exploring the Teaching Profession I & II	Food Science A & B
Introduction to Video Production	Metals and Jewelry I & II	AP Computer Science A & B	United Physical Education	Floral Design
Advanced Video Production	Painting I & II	Computer Science with Advanced Topics	Human Anatomy and	Plant Science

Adapted from: 2018 ACTE Quality CTE

Program of Study Framework--Business (Business)

The Purpose of this tool is to assess the health and viability of Program of Study identified in the four pathways specific to Stillwater Area Public Schools. Use these descriptions to choose which rating best describes your program of study in relation to each criterion.

0 = Not present

1 = minimally achieved Just beginning, infrequently seen or only with a small group of students

2 = moderately achieved Uneven implementation, implemented only in some cases or instances

3 = fully achieved All parts of the criterion are visible, implementation is evident

Quality Indicators	0=Not present	1 = Minimally achieved	2= Moderately achieved	3= Fully achieved
1. Student Career Development				
Comprehensive career development is coordinated and sequenced to promote and support the career decision making and planning of all students			X	
Students and families are provided accurate and timely information on extended learning experiences available through the POS, such as work based learning, CTE and articulated college credit		Not clear		
Students and families are provided information on further education and training options, including application procedures, enrollment, financial aid, and the projected educational, employment and earning outcomes		X		
Students are provided with accurate and timely information on regional occupational trends and outlooks related to their POS		X		

◀ 916
CAREER &
TECH CENTER

**TECHNICAL
CAREERS**

*(Apprenticeship, Associate's Degree,
Advanced Certification, Experience, etc.)*

- Animal Breeder
- Animal Trainer
- Animal Photographer
- Ag Technician
- Animal Care Supervisor
- Horse Farm Manager
- Food Science Technician
- Certified Vet Technician
- X-Ray Technician
- Pharmacy Technician
- Research Assistant
- Field Technician

**PROFESSIONAL
CAREERS**

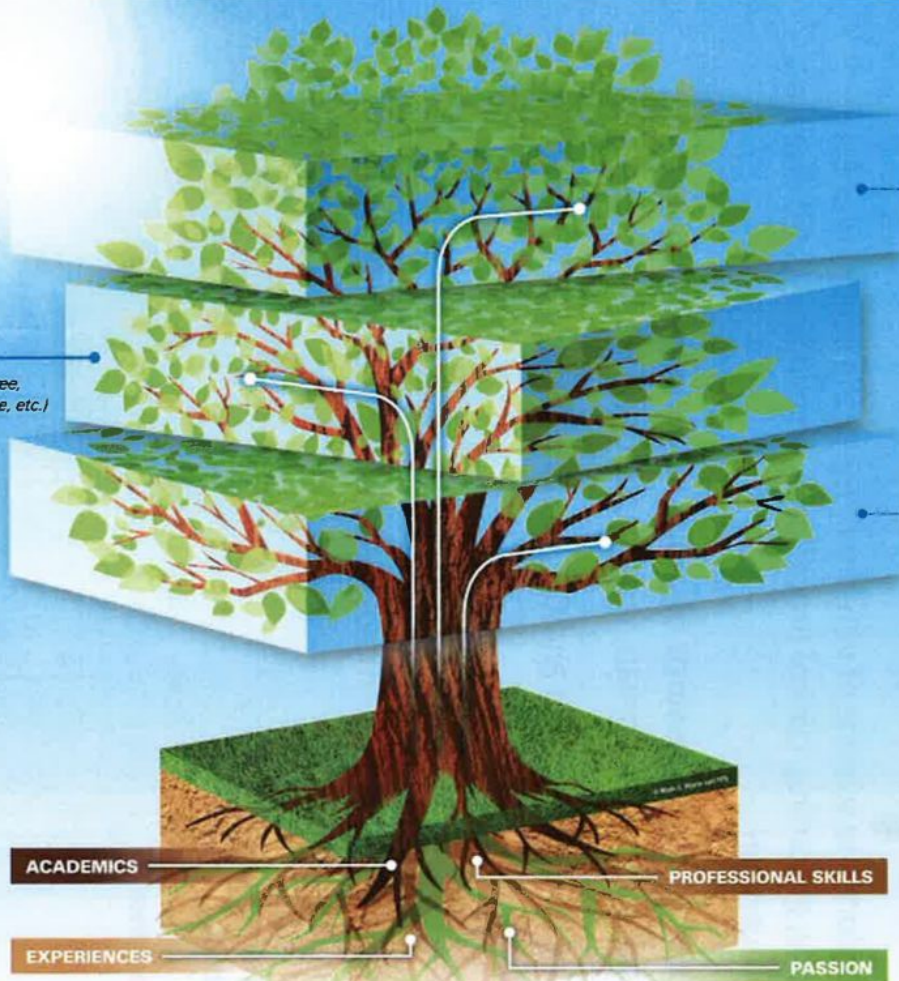
*(Bachelor's, Master's, Ph.D.,
Specialized Training, Experience, etc.)*

- Veterinarian
- Equine Veterinarian
- Veterinarian Specialist
- Animal Nutritionist
- Animal Scientist
- Research and Development
- Merchandise Buyer
- Marine Biologist
- Zoologist
- Agriculture Teacher
- Medical Writer
- Quality Control

**ENTRY-LEVEL
CAREERS**

(with Program Completion)

- Herdsman
- Farm Worker
- Kennel Attendant
- Kennel Manager
- Dog Walker
- Certified Groomer/Stylist
- Retail Sales
- Vet Assistant
- Pet Sitter
- Manufacturing
- Show Animal Handler
- Pet Blogger



Opportunities: Building Relevancy, Community Partnerships and Academic Achievement

- Mentorships
- Internships or externships
- Partner/career guided project-based learning
- Capstone Experience
- Extracurricular Activities

Ways to offer more flexible scheduling to make time for applied learning:

- Credit by assessment
- Dual credit
- Online courses



Potential Partners:

Lakeview Health - Twin Cities Orthopedic - 3M -
Andersen Windows - Zephyr Theater - Story Arc -
WOLD Architects - Kraus/Anderson

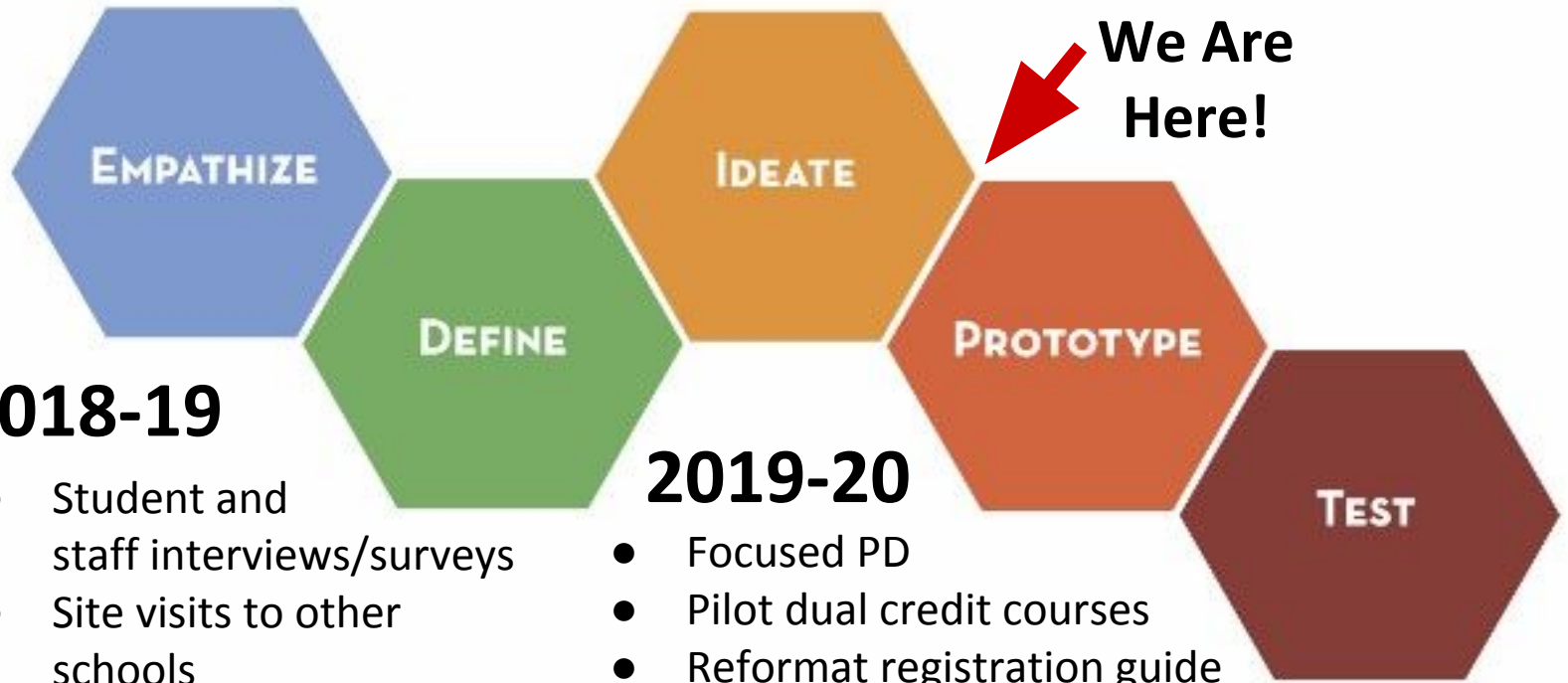
Design Thinking At Work

2018-19

- Student and staff interviews/surveys
- Site visits to other schools
- Research/data collection
- Identify Pathways, align current class offerings

2019-20

- Focused PD
- Pilot dual credit courses
- Reformat registration guide
- Consider credit by assessment
- Partner with Century College
- Develop business partnerships
- Explore scheduling options
- Consider freshmen experience





Questions?
