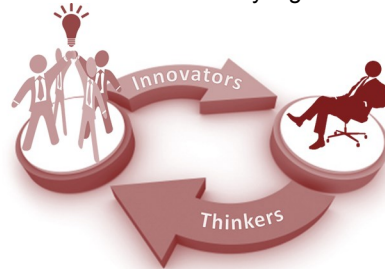# COLLEGE PATHWAYS

At Sidney Jr./Sr. High School

Overview

Sidney Jr./Sr. High School is proud to offer multiple student-choice driven pathways to engage students of all levels of achievement and offer students an opportunity to explore STEM, Biomedical Science, Arts and Humanities. These programs increase student engagement, student achievement, and ultimately, college and career readiness. Each pathway offers many opportunities to earn college credit through SUNY Broome, SUNY Delhi, RIT or TC3 as well as many high school elective courses related to that career.

High quality pathways engage students at all levels of achievement in moving forward to postsecondary education and/or career training.

Function

Students enrolled in Sidney High School's Pathways Programs will become:

Problem-solvers — able to define questions and problems, design investigations to gather data, collect and organize data, draw conclusions, and then apply understandings to new and novel situations.

Innovators — creatively use science, mathematics, and technology concepts and principles by applying them to the engineering design process.

Inventors — recognize the needs of the world and creatively design, test, redesign, and then implement solutions (engineering process).

Self-reliant — able to use initiative and self-motivation to set agendas, develop and gain self-confidence, and work within time specified time frames.

Logical thinkers — able to apply rational and logical thought processes of science, mathematics, and engineering design to innovation and invention.

Technologically literate — understand and explain the nature of technology, develop the skills needed, and apply technology appropriately.

PATHWAYS OFFERED

- STEM Pathway: Engineering
- STEM Pathway: Computer Science
- STEM Pathway: Biomedical Science
- Medical Pathway
- Humanities Pathway: Visual Arts
- Humanities Pathway: Digital Art
- Business Pathway: (Offered through Unatego High School)
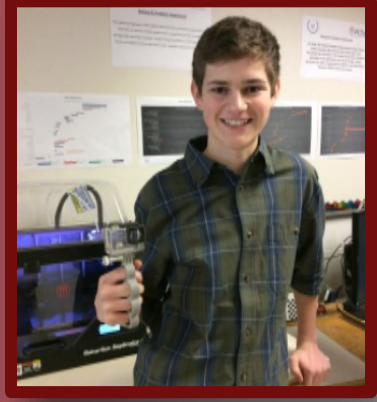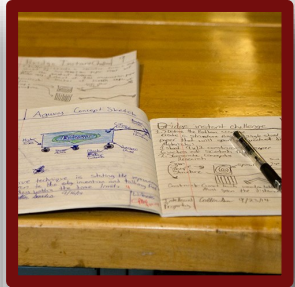- Liberal Arts Pathway

Careers

Get started! Choose a Pathway and learn more!

Benefits to Students

⇒ Tuition Free

⇒ College & Career Ready

⇒ 21st Century Skills: To become highly competitive in today's challenging world.

⇒ Potential to Earn Many College Credits

Choose A College Pathway That Is Right For You!

Engineering

COLLEGE PATHWAYS

At Sidney Jr./Sr. High School

STEM Pathway: Engineering

STEM Pathway: Computer Science

Is This Pathway For You?

Are you mechanically inclined and practical? Are you curious about how things work? Do the skills of designing, developing, producing, and operating perk your interest? Do you enjoy robotics, architecture, math and science? Engineering just might be the career path for you.

Career Categories

- Civil Engineering, Engineering Management
- Chemical Engineering, Geotechnical Engineering
- Mechanical Engineering, Electrical Engineering
- Aerospace Engineering, Computer Engineering

Courses in High School

The chart is an example of this pathway's courses and possible college credits to be earned.

Is This Pathway For You?

Are you interested in computers? Are you a computational thinker? Are you curious about coding and programming? Are you interested in designing video games? Do you want to analyze, adapt, and improve others' programs? This may be your career path.

Career Categories

- Video Design & Development
- Coding & Programming
- Website Design
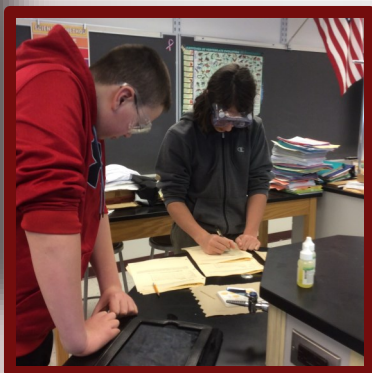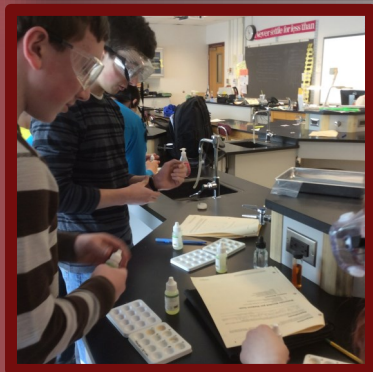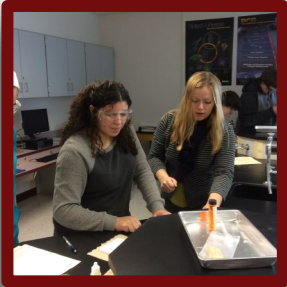- Informational Technology
- Cybersecurity

Courses in High School

The chart is an example of this pathway's courses and possible college credits to be earned.
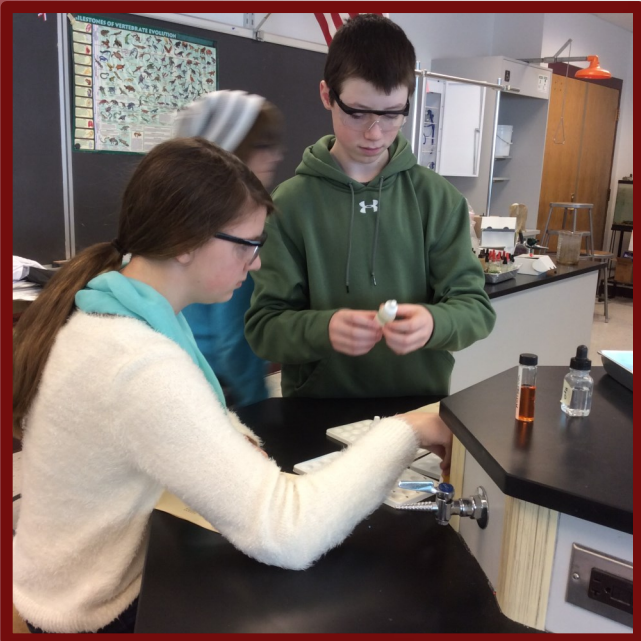
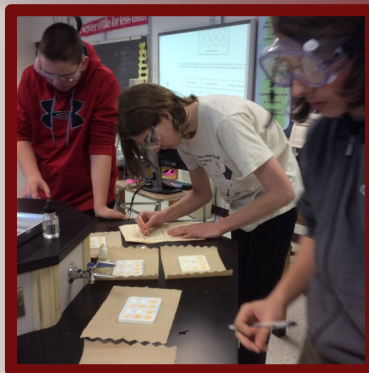| STEM Pathway: Engineering *Denotes Potential For College Credits				
English	English A	English B	English C	*AP or *Comp/ *Lit	
Social Studies	Global I	Global II	*US	Econ/ Gov or *Pub Pol	
Math	Algebra	Geometry	Trig	*Pre-Calc	*Calc & *Stats
Science	LE	Earth	Chem	*Physics	*Intro To Research
LOTE	Span I	Span II	Span III	Span IV	*College Spanish
PLTW	*Intro to Engineering Design	*Computer Integrated Manufacturing	*Principles of Engineering	*Engineering Design & Development	*Digital Electronics
PE/ Health	PE 9	PE 10 Health	PE 11	PE 12	*PED: 118
Electives	Arch Draw, Computer Aided Design				

STEM Pathway: Computer Science *Denotes Potential For College Credits				
Eng	English A	English B	English C	*AP or *Comp/ *Lit	
SS	Global I	Global II	*US	Econ/ Gov or *Pub Pol	
Math	Algebra	Geometry	Trig	*Pre-Calc	*Calc & *Stats
Sci	LE	Earth	Chem	*Physics	*Intro To Research
LOTE	Span I	Span II	Span III	Span IV	*College Spanish
PLTW	*Intro to Computer Science	*Comp.Sci. & Software Engineering	*Computer Science Applications		
PE/ Health	PE 9	PE 10 Health	PE 11	PE 12	*PED: 118
Electives	Arch Draw, Computer Aided Design, *Digital Photographic Imaging: COM 211 Future Potential Courses: *Simulation & Modeling, *Artificial Intelligence, *Cybersecurity, *Computational Problem Solving				

PROJECT LEAD THE WAY
PLTW

Medical

Biomedical Engineering

COLLEGE PATHWAYS

At Sidney Jr./Sr. High School

STEM Pathway: Biomedical Science	Medical Pathway

Is This Pathway For You?

This is one of the fastest growing and most interesting fields in today's job market. Are you a student that is interested in analyzing, designing, and implementing solutions to problems in medical science? This might be your pathway.

Career Categories

- Clinical Engineering
- Medical Device Engineering
- Medical Imaging
- Tissue Engineering

Courses in High School

The chart is an example of this pathway's courses and possible college credits to be earned.

Is This Pathway For You?

Are you interesting in the field of pre-med or nursing? Does the field of pharmaceuticals sound interesting? Are you interested in laboratory research, design and testing? Then a medical pathway in high school might be for you.

Career Categories

- Registered Nurse, Nurse Practitioner
- Physicians Assistant, Physician, Dentist
- Physical Therapist, Occupational Therapist
- Pharmacist, Dietitian, Veterinarian

Courses in High School

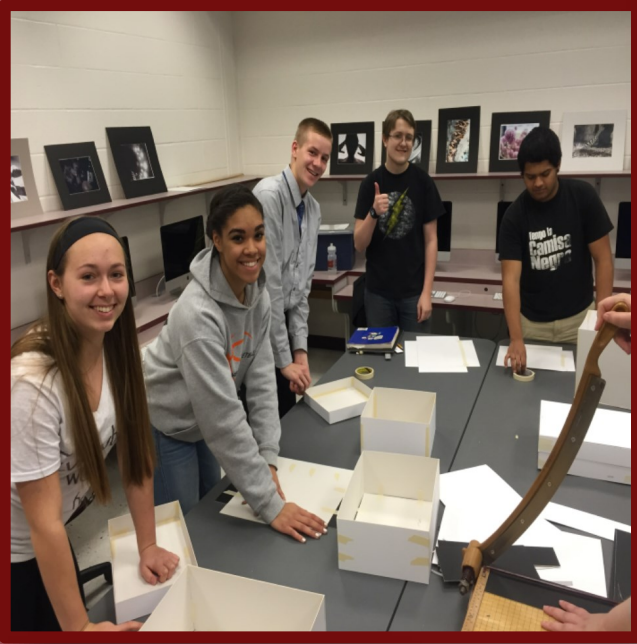The chart is an example of this pathway's courses and possible college credits to be earned.

STEM Pathway: Biomedical Science
*Denotes Potential For College Credits

Eng	English A	English B	English C	*AP or *Comp/Lit	
SS	Global I	Global II	*US	Econ/Gov or *Pub Pol	
Math	Algebra	Geometry	Trig	*Pre-Calc	*Calc & *Stats
Sci	LE	Earth	Chem	*Physics	*Anatomy & Physiology
LOTE	Span I	Span II	Span III	Span IV	*College Spanish
PLTW	*Principles of Biomedical Science	*Human Body Systems	*Medical Interventions	*Biomed. Innovation	Internship
PE/ Health	PE 9	PE 10 Health	PE 11	PE 12	*PED: 118
Electives	Psychology, *Sociology, *Intro To Research I & II				

Medical Pathway
*Denotes Potential For College Credits

Eng	English A	English B	English C	*AP or *Comp/Lit	
SS	Global I	Global II	*US	Econ/Gov or *Pub Pol	Psychology
Math	Algebra	Geometry	Trig	*Pre-Calc	*Calc & *Stats
Sci	LE	Earth	Chem	*Physics	*Anatomy & Physiology, *Intro to Research I
LOTE	Span I	Span II	Span III	Span IV	*College Spanish
PE/ Health	PE 9	PE 10 Health	PE 11	PE 12	*PED: 118
Electives	*Sociology, *Intro to Research II				

Arts

COLLEGE PATHWAYS

At Sidney Jr./Sr. High School

Humanities Pathway: Visual Arts

Humanities Pathway: Digital Arts

Is This Pathway For You?

Do you have an artistic mind? Does drawing, painting, creating, and sculpting interest you? Have you begun developing your art portfolio? Are you planning a career in the art field? A major in Visual Arts could be the right choice for you.

Career Categories

- Graphic Designer, Architect
- Computer-Aided Design (CAD),
- Fashion Designer, Interior Decorator
- Artist

Courses in High School

The chart is an example of this pathway's courses and possible college credits to be earned.

Humanities Pathway: Visual Arts *Denotes Potential For College Credits				
Eng	English A	English B	English C	*AP or *Comp/Lit
SS	Global I	Global II	*US	Econ/Gov or *Pub Pol
Math	Algebra	Geometry	Trig	*Pre-Calc
Sci	LE	Earth	Chem	*Physics
LOTE	Span I	Span II	Span III	Span IV	*College Spanish
Arts	Studio in Art	Studio in Drawing	Studio in Painting	*Art 115	
PE/Health	PE 9	PE 10 Health	PE 11	PE 12	*PED: 118
Electives	Hand Built Ceramics, Wheel Thrown Ceramics, Water Painting, Sculpture, Studio in Crafts, Studio in Printmaking, Digital Photography, Technology in Advertising, Computer Applications , CAD				

Is This Pathway For You?

Do you like art? Do you like computers? This is the place where artistry and technology meet. If you are a creative person who loves technology, a major in digital arts could be the right choice for you.

Career Categories

- Video Design & Development, Video Editor
- Graphic Designer, Flash Designer, Interactive Designer
- Illustrator, Visual Effects Artist
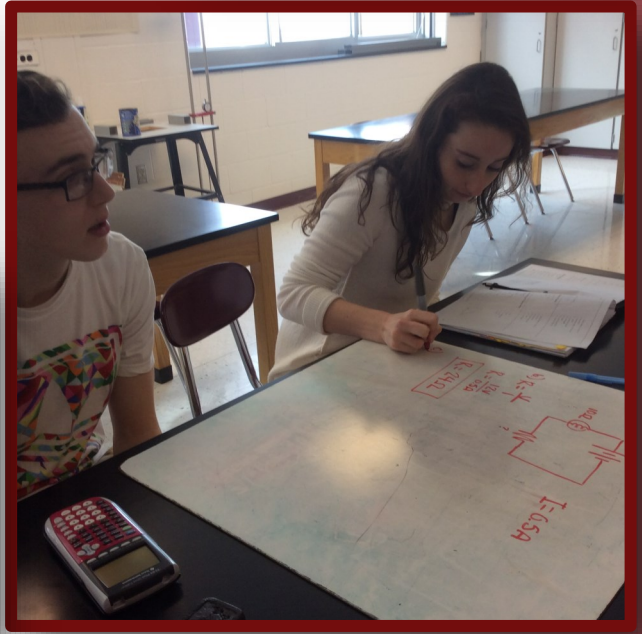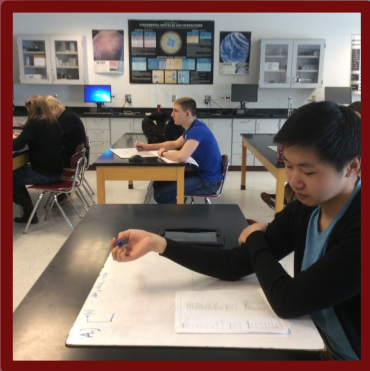- Web Designer, Web Developer

Courses in High School

The chart is an example of this pathway's courses and possible college credits to be earned.
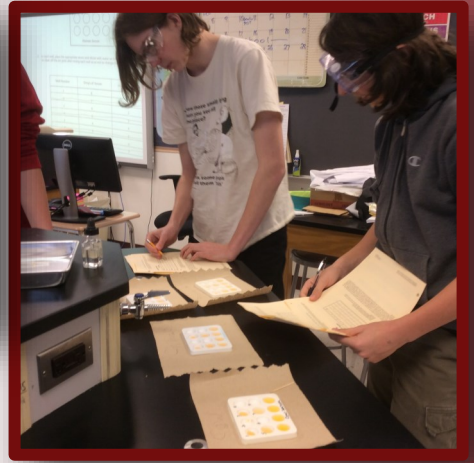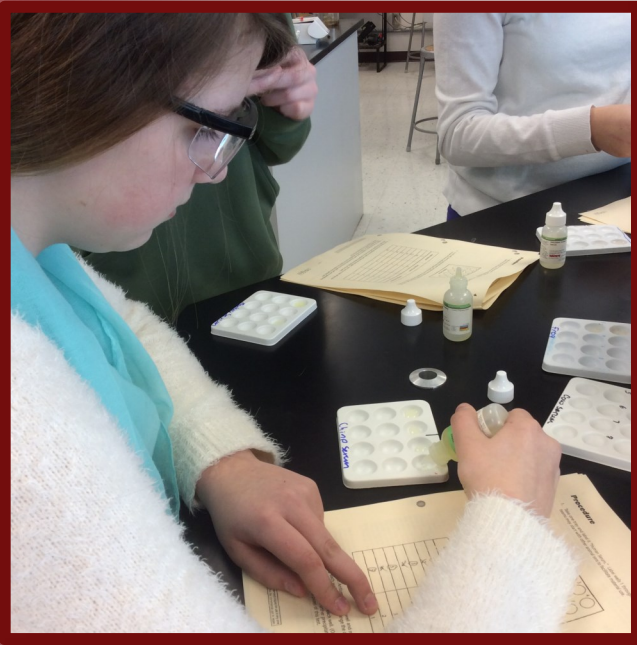
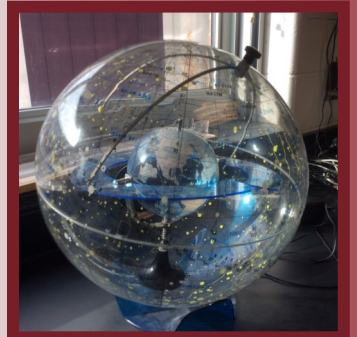| Humanities Pathway: Digital Arts *Denotes Potential For College Credits				
Eng	English A	English B	English C	*AP or *Comp/Lit
SS	Global I	Global II	*US	Econ/Gov or *Pub Pol
Math	Algebra	Geometry	Trig	*Pre-Calc
Sci	LE	Earth	Chem	*Physics
LOTE	Span I	Span II	Span III	Span IV	*College Spanish
Arts	*IED/ Studio In Art	Studio in Drawing	CAD/ Comp Apps/ Tech in Advertising	Digital Photography/*COM-211	*ART 115
PE/Health	PE 9	PE 10 Health	PE 11	PE 12	*PED: 118
Electives	Arch Draw, Studio in Printmaking				

Business/
Liberal Arts

COLLEGE PATHWAYS
At Sidney Jr./Sr. High School

Business Pathway (at Unatego)	Liberal Arts Pathway

Is This Pathway For You?

Are you interested in a business career? Do you plan to own your own business in the future? Does economics, math, and business law interest you? A two year degree in high school might be the right step for you.

Is This Pathway For You?

Are you not sure of a career path? Do you want to explore your options with a variety of college course offerings? Enrolling in the Liberal Arts Pathway might help shape your future plans.

Career Categories

- Business Administration, Entrepreneur
- Marketing, Accounting, Economics
- Compensation Analysis, Retail Sales

Career Categories

- Transfer to a specialized pathway
- Attend a two-year college
- Fulfill elective requirements for your Freshmen and Sophomore years of college
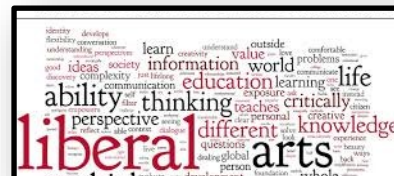
Courses in High School

The chart is an example of this pathway's courses and possible college credits to be earned.

Courses in High School

The chart is an example of this pathway's courses and possible college credits to be earned.

Business Pathway *Denotes Potential For College Credits				
Eng	English A	English B	English 11	English 12	
SS	Global I	Global II	*US	Gov	
Math	Algebra	Geometry	Trig/Pre-Calc		
Sci	LE	Earth	Chem	* AP Physics/ *AP Bio	
LOTE	Span I	Span II	Span III		
Busi-ness	Year 1 Prin of Acct I Intro Word Processing Intro Spreadsheets Intro to Databases Prin of Acct 2 Business Math		Year 2 Personal Money Mgmt. Prin of Microeconomics Bus Law I Prin of Marketing Prin of Macroeconomics		
PE/ Health	PE 9	PE 10 Health	PE 11	PE 12	
Elec-tives	Additional Online Mandatory Classes: Fundamentals of Speech, International Business, Stats ~Refer to Unatego's Business Program brochure for course offerings				

Liberal Arts Pathway *Denotes Potential For College Credits				
Eng	English A	English B	English C	*AP or *Comp/ Lit	
SS	Global I	Global II	*US	Econ/ Gov or *Pub Pol	
Math	Algebra	Geometry	Trig	*Pre-Calc	*Calc & *Stats
Sci	LE	Earth	Chem	*Physics	
LOTE	Span I	Span II	Span III	Span IV	*College Spanish
College Elec-tives	See the *Sidney Jr./Sr. High School Course Selection Guide* for a full list of all college course offerings.				
PE/ Health	PE 9	PE 10 Health	PE 11	PE 12	*PED: 118
Elec-tives	*Sociology, Psychology, *Anatomy & Physiology, *Engineering, *Meteorology, *Astronomy, Veterinarian Science, *Art 115, *Com 211, CAD, Drawing, Computer Apps				

COLLEGE PATHWAYS

At Sidney Jr./Sr. High School

Testimonials

"In high school, PLTW with Ms. Race gave me a head start in college. The classes helped prepare me for keeping lab notebooks in a required, professional manner. In addition to the professionalism of the classes, PLTW provided me with a unique opportunity to gain insight into computer aided programs and technologies that were on par with the start of my initial engineering courses at university. Ms. Race's PLTW classes encouraged technical thinking and planning that are invaluable practices for the future."

~Kimberly Young, Class of '09
University of Massachusetts, Amherst
BS in Biochemistry and Molecular Biology
University of Kent, Canterbury, England
MS in Drug Design

"Entering high school, all I knew is I liked building things, computers, and being interested in what I was learning. That's why I signed up for Mrs. Race's PLTW classes. I wanted to challenge myself. I took all the PLTW classes I could at Sidney and I don't regret one second of it. After taking these classes in high school, I went to college for engineering because of those classes. Once I was in college I realized I enjoyed programming so I migrated from Computer Engineering to Software Engineering/Computer Science. While studying Computer Science I received an internship at Amphenol Aerospace in Sidney. I was (and currently still am) a network analyst where I help our system administrator maintain network stability throughout not just our Sidney facility, but remotely from locations like Houston, Arizona and California. I'm now looking to become a systems administrator with my degree and I know that never would have happened without PLTW classes. The PLTW classes brought me to my true love in the technology field where I enjoy what I do every day."

~Tanner Westcott, Class of '11
SUNY IT
BS in Software Engineering/Computer Science

District Mission Statement

"To Challenge Students To Achieve Their Greatest Potential"

Contact Us

Give us a call for more information about our pathways!

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Sidney, NY 13838

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jgravelin@sidneycsd.org

Visit us on the web at www.sidneycsd.org

*In order for students to be eligible to take any college level course, they must be in good academic standing.