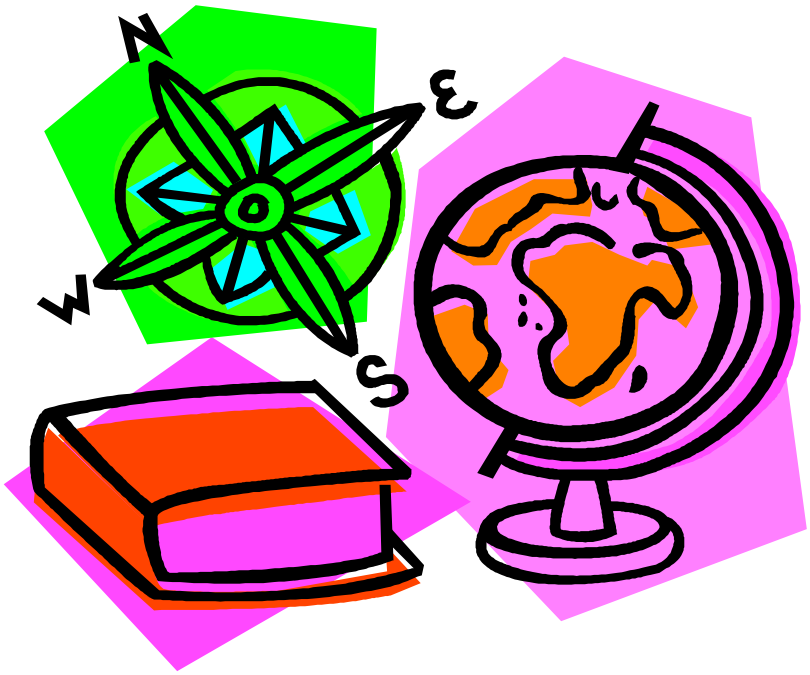
2019-2020

Pathfinder School
Course Selection Guide



Learning
Offers
A
Lifetime
Of
Opportunities

INTRODUCTION

This guide provides a description of the seventh and eighth grade program. Using the guide for the appropriate grade level, parents/guardians can plan the best academic choices with their son or daughter. The table of contents is a convenient source for answering questions about courses or locating other important information.

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THE SEVENTH GRADE

REQUIRED CLASSES

Each seventh grade student is required to take each of the following **YEARLONG** courses:

- **Language Arts**
- **Science**
- **World History**
- **Mathematics**
- **Physical Education**
- **Exploratory (2 nine week sessions of Digital Literacy and Life Skills)**

ELECTIVES

SEVENTH GRADE STUDENTS ALSO HAVE A CHOICE OF ONE FULL YEAR CLASS and ONE-SEMESTER CLASSES or THREE ONE SEMESTER CLASSES OF ELECTIVES.

Please note -*Each elective listed below will only be included in the 2019-20 master schedule if there are a Sufficient number of students who select it.*

Offerings include the following:

FULL YEAR ELECTIVES

- Varsity Band
- Choir
- Concert Orchestra

SEMESTER ELECTIVES

LANGUAGE ARTS
Drama
Creative Writing & Thinking
Digital Media
Exploratory Spanish

GENERAL ELECTIVES
Peer To Peer

ART
Integrated Art

FAMILY & CONSUMER SCIENCE
Sewing and Crafts
Family Living/Child Care

STEAM COURSES
Future City
CS Discoveries
Exploratory Technology

SOCIAL STUDIES
Current World Affairs

SCIENCE
Forensic Science

MUSIC
Beginning Guitar
Choir

BUSINESS
Business Exploration

SEVENTH GRADE REQUIRED COURSES

7th Grade SCIENCE Year

This program continues the Michigan K-12 Science Curriculum based on the Next Generation Science Standards. It emphasizes inquiry based thinking, logical reasoning, critical evaluation, and drawing conclusions by participating in scientific investigations.

- Chemistry
- Changes and properties in matter
- Cells and heredity
- Waves and energy
- Engineering Practices

7th Grade WORLD HISTORY Year

The purpose of the seventh grade Social Studies curriculum is to provide knowledge and understanding of ancient civilizations, cultural geography, multi-cultural awareness, geography, history, civics and economics.

- Rome
- Greece
- India
- China
- Egypt
- Mesopotamia

7th Grade PHYSICAL EDUCATION Year

This course emphasizes the "Fitness for Youth" philosophy of fitness awareness, health awareness, and attaining a healthy lifestyle. The goals of the course are to encourage students to attain an acceptable level of fitness; create an awareness of the importance of nutrition; and to attain a healthy lifestyle for the student.

- Cardio-respiratory fitness
- Muscular strength and endurance
- Flexibility
- Body awareness

7th Grade Math Options YEAR

Pathfinder math students will use multiple representations to solve problems and describe relationships while performing the Michigan Mathematics Practice Standards that are listed below.

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of the others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Pathfinder Pre-Algebra Concepts include:
Pathfinder Pre-Algebra concepts include ratios and proportions, the number system, expressions and equations, geometry and statistics and probability.

Advanced Pathfinder Pre-Algebra:
Eligible students are highly motivated, independent workers with strong problem solving skills. Students are invited to participate in this course based on performance assessment data (grades, teacher recommendation and placement tests).

7th Grade LANGUAGE ARTS YEAR

The purpose of this course is to provide integrated educational experiences in the Common Core Standards Language Arts Strands of Reading, Writing, Listening, Viewing, Speaking, Language, and Literature. This content should include, but not be limited to the following:

- Using the Reading and Writing Processes to construct meaning from a wide range of informational and literary texts
- Using listening, viewing and speaking strategies
- Understanding the power of language in authentic contexts
- Understanding the common features of a variety of literary forms
- Responding critically to visual, oral, and written texts

7th Grade **EXPLORATORY** **Semester**

Two 9 week classes makes one semester

COMPUTERS - DIGITAL LITERACY - This class is designed to empower students to think critically, behave safely, and participate responsibly in our digital world.

This rotation addresses the current Michigan Educational Technology Standards:

¨ Digital Citizenship - being responsible online - safety, privacy, security, digital footprint
¨ Communication - using tools to enhance communication
¨ Research and Information Literacy - evaluate resources and understand copyright
¨ Data collection and analysis - creating and analyzing spreadsheets
¨ Technology - terminology, file formats, computer hardware basics, future careers
¨ Skills - keyboarding, troubleshooting, equipment care
¨ Educational Development Plan - Create account in Career Cruising and start your EDP

LIFE SKILLS - Encompasses knowledge and skills the student may use in the future to become an independent individual. Students will learn:

- ¨ Nutrition and cooking basics.
- ¨ Hand and machine sewing
- ¨ Budgeting
- ¨ Personal care skills
- ¨ Effects of tobacco, vaping, alcohol & drugs.
- ¨ Age –appropriate issue regarding reproductive health

THE EIGHTH GRADE

REQUIRED CLASSES

Each eighth grade student is required to take each of the following year long courses:

- **Language Arts**
- **Science**
- **Pathfinder Algebra**
- **US History**

ELECTIVES

Every eighth grade student chooses three periods of electives for his/her remaining class periods.
THESE THREE PERIODS WILL BE A COMBINATION OF FULL YEAR AND/OR SEMESTER-LONG COURSES.
Please note *- Each elective will be included in the 2019-20 schedule if there are a sufficient number of students who select it.* Offerings include the following:

FULL YEAR ELECTIVES

MUSIC
Symphonic Band
Orchestra (if new, audition may be required)
Choir

LANGUAGE ARTS/WORLD LANGUAGE
Spanish 1

SEMESTER ELECTIVES

LANGUAGE ARTS
Drama
Creative Writing and Thinking
Digital Media
Pathfinder RAAL
Exploratory Spanish

PHYSICAL EDUCATION
Lifetime Fitness
Team Sports

FAMILY & CONSUMER SCIENCE
Food and Nutrition
Sewing and Crafts
Family Living /Child Care

STEAM COURSES
Woodworking Technology
Design Technology
CS Discoveries
Architectural Design & Tech
Robotics
Future City
Exploratory Tech

MISCELLANEOUS
Peer To Peer

SCIENCE
Forensic Science

BUSINESS
Business Exploration

SOCIAL STUDIES
Current World Affairs

ART
Integrated Art

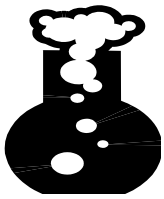
LEADERSHIP
Choose To Lead

MUSIC
Beginning Guitar
Choir

8TH Grade SCIENCE Year

This program continues the K-12 Science curriculum based on the Next Generation Science Standards. It emphasizes inquiry based thinking, logical reasoning, critical evaluation and drawing conclusions by participating in scientific investigations.

- Forces and interactions
- Space systems
- Engineering Practices



8TH Grade US HISTORY Year

8th grade students will continue their study of United States history through the following areas:

- ¨ Writing of the U.S. Constitution and Bill of Rights
- ¨ Westward Expansion
- ¨ Reform Movements
- ¨ Civil War & Reconstruction
- ¨ Development of an Industrial Nation

Social Studies curriculum will emphasize content knowledge, research, inquiry and comparisons to relevant contemporary issues.

8TH Grade LANGUAGE ARTS Year

The purpose of this course is to provide integrated educational experiences in the Common Core Standards Language Arts Strands of Reading, Writing, Listening, Viewing, Speaking, Language, and Literature. This content should include, but not be limited to the following:

- Using the Reading and Writing Processes to construct meaning from a wide range of informational and literary texts
- Using listening, viewing and speaking strategies
- Understanding the power of language in authentic contexts
- Understanding the common features of a variety of literary forms
- Responding critically to visual, oral, and written texts

8TH Grade MATH COURSE DESCRIPTION Year

Pathfinder math students will use multiple representations to solve problems and describe relationships while performing the Michigan Mathematics Practice Standards that are listed below.

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of the others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Pathfinder Algebra:

Pathfinder Algebra concepts will include function, the number system, expressions and equations, geometry and statistics.

Algebra I:

Course Content Goals: As a result of their learning, students will be able to use in context the following algebraic concepts: slope, linear models and equations; exponential models and equations; an introduction to polynomial functions, graphing, simplification and applications; an introduction to quadratic functions, graphing, simplification and applications; an introduction to radical functions and their graphs; an introduction to the concept of inverse functions; and an investigation to the description of data using measures of central tendency and measures and representations of deviation or spread.

Course Activities: Students will work individually or in groups developing and utilizing problem solving strategies and the eight Mathematical Practices in solving problems that are conceptual or rooted in real life contexts. Throughout the class, skills in problem solving and algebraic reasoning will be emphasized. Students will use graphing calculators as a tool to determine their solutions. A TI-Graphing calculator (83+ or 84) is recommended for this course.

ELECTIVES

7TH Grade **VARSITY BAND** **YEAR**

Basics that were taught in beginning band are expanded upon. Regular practicing at home is an absolute requirement. **Teacher recommendation is required.**

- Overall ensemble sound
- Marching at the Memorial Day Parade in Pinckney
- Competition in solo ensemble festivals
- Competition in full band festival competitions
- Performance at two in-house concerts
- Eligibility to participate in after school jazz bands

7th & 8Th Grade CONCERT ORCHESTRA YEAR

The Pathfinder Orchestra is a full year class open to all 7th & 8th grade students who have taken beginning string classes at the Navigator School or the equivalent at other schools or through private study with a string teacher. This is not a beginning level class and students who have not taken the Navigator class should contact the Pathfinder instructor for an audition or interview as deemed necessary by the Pathfinder instructor. Students who sign up for the class and have not fulfilled these prerequisites will be contacted by the Pathfinder instructor for an interview and/or audition before admission to the class.

The goals of the class are to advance the musical skills on an orchestral string instrument including violins, violas, cellos and acoustic string bass. The advancement of note reading skills, ear training, and technical abilities will be introduced and reinforced through group method books and sheet music appropriate to the level of the group.

Four to six public performance opportunities are provided in the class and attendance is required. The class will also teach appropriate fundamental music theory and appreciation facets of instrumental music instruction through orchestral string music. Wind players from the band program may be selected by the director to participate for a full symphonic orchestral experience depending on the requirements of the music selected by the director.

7TH & 8TH CHOIR SEMESTER OR YEAR

Mixed choir is a training choir for girls and boys with a strong interest in improving their singing skills.

¨ Good singing tone
¨ Increasing music theory skills
¨ Choral performance

7th & 8th Grade Digital Media Semester

This class gives you skills to communicate information to large groups in various formats. Students will use tools from Apple Creative Suite to:

- Compose an advertising campaign for a student-designated product
- Create a public service announcement
- Create Music
- Create a podcast series
- ¨Learn advanced screencastify and wevideo techniques

Students will also delve into digital citizenship/safety.

7th & 8th Grade DRAMA Semester

This class provides an outlet for student creativity. In this class, students will be introduced to the basic concepts of theater arts. Students will use various techniques to build confidence and trust in themselves, and with their classmates. Main topics include using imagination, characterization, memorization, stage blocking, prop and costume production, role-playing, acting, and play production.

- The One-Act-Play
- Mime
- Characterization
- Taste of Shakespeare
- Improvisation
- Monologues
- Interpretation
- Puppet Theater
- Script Use/Writing
- Stage Direction

7th & 8th Grade BEGINNING GUITAR SEMESTER

This beginning guitar class is designed for the student who has very little to no experience playing the guitar, but would like to learn and is willing to practice. ***Students will need to provide their own guitar as well as purchase a method book.***

- Styles include classical, rock folk, blues and jazz.
- Tune, change strings, maintain and adjust instrument
- Finger-picking and flat-picking styles
- Read and write music, chords, and tablature
- Electric, acoustic and bass guitar
- Fundamentals of playing in small groups

7th & 8th Grade INTEGRATED ART SEMESTER

Students with a keen interest in learning more about art will dig deeper into new processes and techniques for improving their drawing and painting abilities. They will be challenged to develop and use original ideas that convey their feelings and messages through art. Sketchbooks/journals are required and are checked periodically through term for grade. A variety of two and three dimensional media will include: oil pastels, charcoal, paints of all kinds.

7th & 8th Grade CREATIVE WRITING &THINKING SEMESTER

In this course the students will be inspired to use their imaginations. A variety of professionally created media (short stories, poems, movies, etc.) will be used as examples and springboards for the students.
Short stories

- Poetry/Mythology
- Cartoons
- Newspaper Writing
- Blogging

7th & 8th Grade FORENSIC SCIENCE SEMESTER

Forensic Science is a semester course covering the aspects of criminalistics. This course will focus on crime scene investigation techniques through various lab experiences and guest speakers.

- Analysis of hair, fiber, paint, fingerprints, handwriting and crime scenes.

7th & 8th Grade CS DISCOVERIES SEMESTER

Computer Science Discoveries (CS Discoveries) is a semester long introductory computer science course that gives students the opportunity to explore problem solving, wen development, interactive games and animations, the design process, data and society, and physical computing.

The course is designed with high ceiling to be engaging for all students regardless of prior computer experience. More advanced students will excel and students who are newer to computer science concepts will gain experience through relevant and fun activities.

7th & 8th Grade CURRENT WORLD AFFAIRS SEMESTER

In this class, students will become aware of events occurring presently throughout the world. They will learn how those events affect nations and individuals.

- Small group and large group discussions
- Research projects

7TH & 8TH Grade BUSINESS EXPLORATION SEMESTER

This course is designed to give students an overview of the business world. Areas we may cover are business ownerships, personal finance, basic economics, consumer economics, business and consumer math, work readiness skills and finding out what it takes to be successful in today's global economy. When studying personal finance we also talk about investing. Students will participate in studying personal finance, we also talk about investing. Students will participate in a stock market simulation. Each student is given a virtual cash amount of $100,000 and they strive to create the best-performing portfolio using a live trading simulation. Simulations are used when possible to introduce or reinforce concepts covered in class.

7TH & 8TH Grade FUTURE CITY SEMESTER

Future City is first and foremost a Science, Technology, Engineering, Art, and Math (STEAM) competition and class. Working with volunteer engineers, students will form a team to compete in the Michigan Regional Future City Competition supported by the Detroit Engineering Society and DTE Energy. This intensive work involves independent and highly-skilled students who will speak with experts in the fields of engineering, project management, and technology. Students will gather knowledge from all other resources available to design a city of the future to respond to a yearly challenge. Together with a group of Navigator 6th grade students, the team will submit a SimCity Virtual City, a 1,500-word essay, a project plan, a 3-D scaled model of a city, and field two hours of questions and present to a panel of judges.

An application may be required to accommodate the interest of many students. This is an ideal class for students interested in exploring the fields of engineering, mathematics, science and the arts. Intensive work and sometime outside the regular school day will be required.

7TH & 8TH Grade SEWING AND CRAFTS SEMESTER

Students make projects, both sewing and non-sewing.

- Learn use, maintenance, and care of the sewing machine
- Design, plan, and produce craft projects

7TH & 8TH Grade FAMILY LIVING/CHILD DEVELOPMENT SEMESTER

This course offers information on the following bulleted items. It also includes individual and group projects, including running a playschool for 3 to 5 year old children. A caregiver role-play is a required overnight assignment.

- Decision making, communication, goal setting and relationships
- Pregnancy, birth, and parenting
- Newborns and children age 0-3

7th & 8th Grade PEER TO PEER SEMESTER

This class is designed for students interested in learning about individual students within Pathfinder School. Students work together in an integrated, positive fashion to promote socialization, independence and strong friendship bonds that last throughout middle school and beyond.

P2P is about creating connections within a diverse group of students and ensuring all students are acknowledged not only for what makes them different but also for what makes all of us the same.

Potential activities may include attending general or special education class with an identified peer, attending P2P scheduled meeting, and meeting with adults to further your knowledge of particular disabilities.

7th & 8th Grade EXPLORATORY SEMESTER

Exploratory Technology -

This introductory class is open to 7th and 8th grade students that wish to be exposed to the world of technology and engineering. STEM learning is at the heart of the curriculum where students will learn to solve real world engineering problems using project based learning, assignments and activities. Students will learn the design process and how it is used to create solutions that will make our lives easier. Throughout the semester students will learn basic drafting along with an introductory to computer aided design. They will also learn to use some basic hand tools safely to complete projects, and have the freedom to use the lab facilities for their own creations.

Exploratory Spanish -

This class will introduce students to basic vocabulary and conversation, and introduce them to Spanish speaking cultures. Topics of study will include:

- School materials and activities
- Dates and Weather
- Basic conversation
- Influential Hispanic-Americans
- The alphabet, colors & numbers
- Personal descriptions
- Spanish-speaking countries
- Latin holidays and celebrations

8TH Grade SYMPHONIC BAND YEAR

This group will play the most advanced literature. It will be assumed that an individual in this band is highly motivated and will be responsible for all material on a timely basis. Regular practicing at home is an absolute requirement. This band will play at all the regular functions of our band program.

- Marching at the Memorial Day Parade in Pinckney
- Students encouraged to compete in solo and ensemble festivals
- Competition in full band festival competitions
- Performance at two in-house concerts
- Eligibility to participate in after school jazz band
- Poetry anthologies

8TH Grade SPANISH 1 YEAR

This class is a High School level course and is for students who want to fast-track their foreign language learning. Students who wish to be able to take Advanced Placement Spanish their senior year of High School should take this course. As a result of learning, students will:

- Develop foundations of speaking, listening, reading and writing, skills in Spanish. (Emphasis placed on speaking and listening)
- Be introduced to the Spanish speaking world, its people, and its everyday culture
- Participate in various authentic cultural experiences (e.g. Latin dancing)

Units of study will include introductory conversational skills, weather, describing oneself and others, home, family, school, eating out at a restaurant, health and leisure activities. Students will have the opportunity to participate in authentic cultural practices (e.g. Holiday parties for Dia de los Muertos, Cinco de Mayo, etc.). Students will use a variety of media to help develop their proficiency (e.g. short novels, tv series, movies, etc.)

8th Grade CHOOSE TO LEAD/WEB SEMESTER

Students will be introduced to character and leadership skills and will be expected to plan, organize and get involved in an assortment of school activities and fundraisers. Those interested should be independent workers, display leadership qualities, and have a positive attitude towards school. Topics will include, decision making, communication skills, goal setting, character traits, and service projects. Students must commit to service hours including WEB (Where Everyone Belongs) hours in August.

8th Grade TEAM SPORTS COED SEMESTER

This course is designed to provide students with an opportunity to participate in various team sports.

· Competition, rules, terminology, strategy
· Floor hockey, soccer, softball, tennis, volleyball, basketball, and other team oriented activities

8th Grade LIFETIME FITNESS Semester

Students will be given opportunities to learn about improving, managing and maintaining healthy physical fitness levels throughout their lives. Exercise activities will focus on how to develop and increase flexibility, core and upper body strength, as well as how to improve one's cardiovascular endurance. Select sport units will also be more lifetime oriented. Our primary goal is to provide a program that promotes fitness and an active lifestyle. A secondary goal will be to implement exercise programs and sport activities that are relevant and fun for both male and female students in a coed setting.

Activities To Include:

- Various circuit training workouts
- Introduction to weightlifting
- Water workouts
- Aerobic workouts
- Miscellaneous fitness games and activities

Cross country running
Tennis
Volleyball
Badminton

8TH Grade FOOD AND NUTRITION SEMESTER

This class will incorporate how to eat healthy in the fast-paced lifestyle of today.

- Nutritious snacks
- How to prepare quick snacks, side dishes, desserts and meals
- Participating in a chili cook-off
- Budgeting and consumer skills related to purchasing, preparing, and storing foods

8TH Grade ARCHITECTURAL DESIGN & CONSTRUCTION SEMESTER

Architectural Design and Construction is a hands-on course where students will learn through modeling how the construction industry works. Instruction will include tool safety, cost estimating, foundations, framing, and finish carpentry work. The student will gain a basic knowledge of the building trades. Using 3D solid modeling software the students will design and create their own floor plan of a residential home.

- Demonstrate safe and skillful use of the tools and related processes used in the construction industry
- Exhibit use and understanding of construction terminology
- Demonstrate knowledge and understanding of construction through scale model projects
- Gain a better grasp of spatial visualization by using an advanced 3D modeling software
- Students who choose this course should have strong drafting and math skills.

8TH Grade WOODWORKING TECHNOLOGY SEMESTER

This is a hands-on course designed to give an introduction to the wood manufacturing industry and to develop skill and appreciation in the woodworking craft. Instruction is given on safety and proper use of hand tools and power machinery. Individual woodworking projects are included throughout the course. The student will develop an appreciation of craftsmanship and completion of goals.

- Identify appropriate tools, machines, materials, hardware, and abrasives
- Demonstrate safe and skillful use of the tools and related processes used in the woodworking field
- Exhibit use and understanding of woodworking terminology
- Demonstrate teamwork and work ethic while completing quality projects.

8TH Grade DESIGN TECHNOLOGY SEMESTER

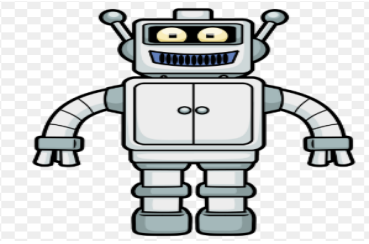
In Design Technology students will use hands-on experience to learn to design, build, and test various assignments in this project-based learning class. Focusing on transportation as our topic, students will learn the history and development of air and land transportation as they will create their own versions of different types of vehicles. Using a Computer Aided Design software, students will design their projects digitally, then build their designs into reality with various materials. Students will also learn to safely use some power tools for the building of their designs. Projects in this class include: a water powered rocket, glider, mousetrap powered all-terrain vehicle, magnetic levitation vehicle, a hovercraft and a CO_2 powered car.

- Demonstrate safe and skillful use of the tools and related processes used in the construction industry
- Demonstrate knowledge and understanding of design technology through scale model projects
- Gain a better grasp of spatial visualization by using an advanced 3D modeling software

Students who choose this course should have strong drafting and math skills.

8th Grade ROBOTICS & AUTOMATION Semester

This course will convert the excitement and engagement of robotics into relevant STEM learning outcomes for 8th Grade Pathfinder students. It will provide students with teacher-led, team-based curriculum that delivers interconnected science, technology, engineering, and math lessons spread over 18 weeks. STEM curriculum involved in this unit will also help reinforce high level math and science skills that college and career ready students need. In this course we will cover radio controlled robotics, coding and programming, automated robotics, and system engineering. This hands-on curriculum is recommended for any student that wants a fun challenge, while preparing themselves for real world experiences.



8TH Grade **SEMESTER**

Reading Apprenticeship Literacy (RAAL) ~

Statistically Significant Boosts in Academic and Behavior

Research funded by the U.S. Department of Education found by significant academic and behavioral benefits for students enrolled in the Reading Apprenticeship Literacy (RAAL) course. With the reading Apprenticeship framework at its heart, this course helps students build a positive reader identity, make concrete improvements in reading comprehension and subject area achievement, and experience a renewed investment in their personal success as readers and learners.

A student may sign up for this class, but students' will also be hand-selected to take this class based upon a data analysis of students' current grade , M-STEP score, SRI score, and teacher recommendation.

"The curriculum 'works' because it addresses our social needs at the same time as our reading needs. Students' react differently, bringing their own experience into the reading arena—it's magic if the class." Former RAAL Student.

Snapshot Synopsis:

- Talk to the text ~ Think Aloud ~ Making the Invisible Visible (Thoughts)
- Peer Recognition and Support ~ Pair share, Triad Share, small Group Dynamics
- Building on Schema through a Four Dimension Conversation ~ Personal ~Social ~ Cognitive ~ Knowledge Building
- Self-Reflection ~ Personal Reading History ~ Overcoming Roadblocks