



2024 – 2025 Course Guide

**North Middle School
N88 W16801 Main Street
Menomonee Falls, WI
53051**



Engage | Learn | Improve

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Welcome to North Middle School

At North Middle School we provide a broad range of elective courses for a variety of student interests. These elective classes offer a high degree of active student learning and hands-on activities.

Our middle school course guide will assist you in making course selections for next school year. Listed below are some reminders when making your choices.

1. Student schedules will be based on class size parameters and course availability.
2. In 7th and 8th grade, electives are offered every other day for the entire year (A or B day).
3. Please make sure you are **accurate** in your course selections. You will not be able to drop a class after the first two weeks of the school year.
4. Students are required to complete course selections in PowerSchool as well as a paper copy.

If you have questions regarding registration, please contact your child's **2024-25** School Counselor.

6th Grade – Mrs. Tremelling at tremjea@sdmfschools.org or 262-946-2085

7th Grade – Mrs. Rebro rebrcar@sdmfschools.org or 262-946-2289

8th Grade – Ms. Bonilha at bonijen@sdmfschools.org or 262-250-2635

Grading Scale

Grade	Description	Grade Points	Cut Off Percentage	Grade Value
A	A	4.000	93	100
A-	A-	3.670	90	92
B+	B+	3.330	87	89
B	B	3.000	83	86
B-	B-	2.670	80	82
C+	C+	2.330	77	79
C	C	2.000	73	78
C	C-	1.670	70	72
D+	D+	1.330	67	69
D	D	1.000	63	66
D-	D-	0.670	60	62
F	F	0.000	0	59
I	Incomplete	0.000	0	0
E	Excellent	0.000	0	0
S	Satisfactory	0.000	0	0
U	Unsatisfactory	0.000	0	0
M	Medical	0.000	0	0
W	Working toward proficiency	0.000	0	0
P	Pass	0.000	0	0
NP	No Pass	0.000	0	0
IP	In Progress	0.000	0	0

English/Language Arts

Course Title	Description
<p><u>Language Arts/Reading</u> <i>Required</i> Year Course Grade 6</p>	<p>Sixth grade language arts integrate reading, writing, language (grammar and vocabulary), and speaking/listening into each unit of study. Students will read a variety of literary genres and informational texts. Students will use active reading strategies, analyze and interpret what they've read, and write for a variety of purposes and audiences. Students will also study words stems and correct grammar and language use.</p>
<p><u>Language Arts</u> <i>Required</i> Year Course Grade 7</p>	<p>Seventh grade language arts integrate reading, writing, language (grammar and vocabulary), and speaking/listening into each unit of study. Students will read a variety of literary genres and informational texts. Students will use active reading strategies, analyze and interpret what they've read, and write for a variety of purposes and audiences. Students will also study words stems and correct grammar and language use.</p>
<p><u>Language Arts</u> <i>Required</i> Year Course Grade 8</p>	<p>Eighth grade language arts integrate reading, writing, language (grammar and vocabulary), and speaking/listening into each unit of study. Students will read a variety of literary genres and informational texts. Students will use active reading strategies, analyze and interpret what they've read, and write for a variety of purposes and audiences. Students will also study words stems and correct grammar and language use.</p>

Mathematics

Course Title	Description
<u>Math 6</u> Year Course Grade 6	Sixth grade curriculum focuses on the domains of the State Standards of Mathematics. The five critical areas include: (1) Ratios and Proportional Relationships, (2) The Number System - including negative numbers, (3) Expressions and Equations, (4) Geometry, (5) Statistics and Probability.
<u>Math 7</u> Year Course Grade 7	Seventh grade curriculum focuses on the domain of the State Standards of Mathematics. The five critical areas include: (1) Ratios and proportional relationships, (2) The number system - including rational numbers, (3) Expressions and equations - focusing on the properties of operations, (4) Geometry, (5) Statistics and probability. Students must have a scientific calculator. Texas Instruments is preferred (TI30 to TI34)
<u>Math 8</u> Year Course Grade 8	Eighth grade curriculum focuses on the domain of the State Standards of Mathematics. The five critical areas include: (1) The Number System with a focus on irrational numbers, (2) Expressions and equations – applying more properties of exponents, linear equations, and solving systems, (3) Functions, (4) Geometry – angle relationships, transformations of shapes, and Pythagorean Theorem and Volume, (5) Statistics and Probability – associations in bivariate data. It is highly recommended that students have a graphing calculator - TI-83 or TI 84 preferred which can be used all throughout high school.
<u>Consolidated Math 7/8</u> Year Course Grade 6 or Grade 7	This course compacts both seventh and eighth grade State Standards of Mathematics into one year. See course descriptions for seventh and eighth grade.
<u>Algebra 1</u> Year Course Grade 7 or Grade 8	Algebra 1 is the generalized study of arithmetic. Students will study Equations and Inequalities including the Pythagorean Theorem; Functions - Linear, Exponential and Quadratic; Systems of Equations and Inequalities, One and Two Variable Statistics and Quadratic Equations. It is highly recommended that students have a graphing calculator - TI-83 or TI 84 preferred which can be used all throughout high school.
<u>H Geometry</u> Year Course Grade 8	This course uses the High School Math Standards in Geometry. It introduces students to logic and proof, and spends most of the time exploring properties of triangles with congruence, similarity, right triangles, and trigonometry, then moves to relationships of circles and finishes with statistics and probability. It is highly recommended that students have a graphing calculator - TI-83 or TI 84 preferred which can be used all throughout high school.

Social Studies

Course Title	Description
<p><u>Social Studies</u> <i>Required</i> Year Course Grade 6</p>	<p>Students will begin the year focusing on geography which will introduce them to map skills. Students will apply these skills throughout the entire year. Students will then study the modern culture of the world as we travel throughout the seven continents. We will end the year with a culminating unit exploring global perspectives of the world. Throughout all units of study, students will continue to develop literacy strategies, study skills, and varying levels of inquiry.</p>
<p><u>Social Studies</u> <i>Required</i> Year Course Grade 7</p>	<p>Our journey will focus on world geography and world history in 7th grade social studies. Students will explore a variety of topics throughout the regions of South and East Asia and the Pacific, Southwest and Central Asia, Africa, Europe and Russia, and The Americas. Throughout the units of study, students will continue to develop literacy (reading and writing), critical thinking, and inquiry skills.</p>
<p><u>Social Studies</u> <i>Required</i> Year Course Grade 8</p>	<p>This course begins with a study of North America before Colonization (Native Americans) and ends with Reconstruction after the Civil War, which will serve as background for the High School course in U.S. History. This course will place an emphasis on not only learning about major events and important people, but also on the growth and development of American society and the basic values that underlie its development. Students will use inquiry-based engagement and critical thinking skills to examine the early history of our nation.</p>

Science

Course Title	Description
<u>Science</u> Required Year Course Grade 6	In 6th grade science students will study rocks and minerals, erosion and deposition, plate tectonics, weather and atmosphere, and space. They will conduct experiments, collect and analyze data, create models, and read and analyze information about each concept. Each unit is centered around a current event storyline that is interwoven with each lesson.
<u>Science</u> Required Year Course Grade 7	7th grade science will cover 5 issues-oriented units exploring ecology, cells, human body systems, genetics, and bioengineering. Students will conduct experiments, use microscopes, make and analyze graphical data, and work in groups to answer questions. They will learn about the fundamental principles of life and living things.
<u>Science</u> Required Year Course Grade 8	In 8th Grade science, students will explore the basic fundamentals of chemistry and physics. Students will conduct experiments, collect and analyze data, and develop rationale about the phenomena explored in class. Topics covered in 8th grade science will help students build the foundation needed to be successful in high school science classes.

Art

Course Title	Description
<p><u>Art</u> <i>Required Nine Week Course Grade 6</i></p>	<p>The sixth-grade art course is a nine-week, exploratory experience for all sixth-grade students. The projects provide students opportunities to grow as creative problem solvers, independent thinkers, and intentional artists. The course includes 4 projects, which focus on drawing, sculpting, and art history. Sixth grade art is the last required art course in Menomonee Falls Schools, and teaches artistic routines, planning, creating, and evaluating which support the 7th and 8th grade art electives.</p>
<p><u>Drawing and Painting</u> <i>Elective Grade 7</i></p>	<p>Students will explore 2-dimensional art processes such as drawing, painting, printmaking, and collage. The students will engage in projects that introduce the Principles of Design and how to effectively use them to make unique work. This course promotes foundational art skills that prepare students for future art courses at the middle and high school levels.</p>
<p><u>Sculpture</u> <i>Elective Grade 7</i></p>	<p>Students will explore 3-dimensional art processes such as ceramics, soft-sculpting, and papier-mâché. The students will engage in the creation of unique art by developing art that is relevant to their own interests, while still learning sculpting techniques. This course promotes foundational art skills that prepare students for future art courses at the middle and high school levels.</p>
<p><u>Digital Art</u> <i>Elective Grade 8</i></p>	<p>Digital Art is a course focused on how art and technology interact. Students will work with technology and traditional techniques to develop digital art such as photography, animation, digital painting, and graphic design. This course prepares students for high school level digital art courses by featuring processes used in professional art careers.</p>
<p><u>Studio Art</u> <i>Elective Grade 8</i></p>	<p>The goal of Studio Art is to teach students how to independently and thoughtfully develop ideas, execute art plans, and grow as an artist through planning, creation, and reflection. Students' individual interests will greatly influence the work developed during the course, through the development of choice-based projects. Students will be exposed to and working with a variety of materials that reflect processes used by current working artists. This course prepares students for high school level art courses by nurturing and promoting student voice.</p>

Business & Information Technology

Course Title	Description
<p><u>Technology Connection</u></p> <p><i>Required</i> <i>Nine Week Course</i> <i>Grade 6</i></p>	<p>We live in a technology-driven society where many skills need to be mastered to use a computer productively & to be successful in school and business. You will become a proficient user of computer software, including the Microsoft Suite and/or Google Workspace. Skills mastered during this class also include digital citizenship & school technology tools. We also stress effective keyboarding technique and strive to improve keyboarding speed and accuracy to a 6th grade standard level. Prepare yourself for success in school and on the job!</p>
<p><u>Intro to Coding</u></p> <p><i>Elective</i> <i>Nine-week course</i> <i>Grade 6</i></p>	<p>This introductory computer coding course empowers students to create and engage with computer technology. Students learn to problem solve through several challenges with real world scenarios. Students create their own animations and programs using Code.org. This course is designed to be creative, engaging, collaborative, exploratory, and fun!</p>
<p><u>Computer Applications</u></p> <p><i>Elective</i> <i>Grade 7 and Grade 8</i></p> <p><i>(This class will be offered in the 2024/2025 school year)</i></p>	<p>In this course, students will utilize technology tools to research and create their own business plan. Some units of study include: business letters, marketing, website building (HTML), entrepreneurial skills, and so much more! Students will practice collaborative teamwork and presentation skills. This class is for you with the ever-expanding use of technology at school and on the job!</p>

Business & Information Technology

Course Title	Description
<p><u>Financial Life Skills</u></p> <p><i>Elective</i> <i>Grade 8</i></p>	<p>Financial success...is it in your future? In Financial Life Skills, you will discover what it takes to become financially literate. You will learn how to manage your own money using a budget and checkbook and make smart decisions about banking, credit, investing, taxes, insurance, buying choices, and much more. Participate in Junior Achievement's Finance Park program which culminates in a day-long career/income/budget simulation field trip! You are never too young to learn the skills that will lead to economic independence. In today's ever-changing economy, one thing remains constant: every person needs a basic understanding of personal financial skills!</p>
<p><u>Career Pathways</u></p> <p><i>Elective</i> <i>Grade 8</i></p>	<p>Get ready for your future by exploring occupations that interest you, examining various aspects of work, and becoming aware of the relationships that exist between education and career planning. Course units include job applications, mock job and career exploratory interviews, Junior Achievement's "It's My Future" program, entrepreneurial field trips, guest speakers from our MFHS Academies, in-depth use of North's Xello software with a strong focus on the 16 Career Clusters, employability skills, social media use appropriate for school and careers, personality-type online assessments, career, education, and job search ethics, presentation skills and more. It is never too early to discover how to get a job and prepare for your career!</p>
<p><u>Mobile Apps</u></p> <p><i>Elective</i> <i>Grade 7 and Grade 8</i></p> <p><i>(This class will be offered in the 2025/2026 school year)</i></p>	<p>In this course, students will learn to create entertaining and socially useful apps for phones and tablets that can be shared with friends and family. In addition to learning how to program and become better problem solvers, students will explore the exciting world of computer science from the perspective of mobile computing and its increasingly important effect on society. We also explore the world of Artificial Intelligence (AI) through machine learning. We will learn about different systems used to represent information in a computer and the challenges and trade-offs posed by using them. If want to learn how to build apps and learn more about computer science, this class is for you!</p>

Music

Course Title	Description
<u>Band 6</u> <i>Elective Year Course Grade 6</i>	Sixth Grade Band is a class where students have the instruction to learn how to play a band instrument and perform for others. The class helps all students develop the necessary skills for playing a band instrument. A week-long summer lesson program occurs in August for students to get a good foundation before the school year begins. The band meets daily and each student is expected to receive a weekly lesson. Performances include “Bands of the Falls” a winter and spring concert along with other small group opportunities.
<u>Orchestra 6</u> <i>Elective Year Course Grade 6</i>	Sixth grade beginning orchestra is open to any student who wants to develop the necessary skills to play a string instrument (violin, viola, cello, bass). No prior experience is necessary. A week-long summer lesson program occurs in August for students to get a good foundation before the school year begins. The orchestra meets daily and each student is expected to receive a lesson weekly. Performances include the annual winter and spring concerts, Stringfest, and participation in a solo recital.
<u>Choir 6</u> <i>Elective Nine-Week Course Grade 6</i>	Choir members learn about their own unique instrument - their voice. Vocal training will emphasize musical skill development through learning songs in many different styles, languages, and time periods. The fundamentals of reading music and sight singing will be a part of the overall choir curriculum.
<u>Exploring Music 6</u> <i>Elective Nine-Week Course Grade 6</i>	The Exploring Music portion of the exploratory block of classes is a nine-week course for students <u>not enrolled</u> in Band, Orchestra or Choir. The focus of this class is to experience the many different facets of music and to apply that knowledge into everyday living. Students will explore music fundamentals, musical theater, ukulele, world music and music technology.

Music

Course Title	Description
<u>Band 7</u> <i>Elective</i> <i>Grade 7</i>	<p>Seventh Grade Band consists primarily of students who have completed one year of musical training on their instrument. Students play more advanced music in 7th grade and enjoy the challenge. The band meets every other day and each student receives a weekly band lesson either in school or a private lesson outside the school day. Students participate in both required and optional performances. Performing for other people is a part of our class.</p> <p>Students who are learning a band instrument for the first time in seventh grade must work hard to catch up to the other students. Private lessons outside of school may be necessary to catch up.</p>
<u>Orchestra 7</u> <i>Elective</i> <i>Grade 7</i>	<p>Orchestra 7 consists of students who have completed one or more years of musical training on a string instrument (Violin, Viola, Cello, Bass.) The orchestra meets every other day and each student is expected to receive a weekly lesson. This class works on skill development beyond the beginning level. Performances include the annual Winter and Spring concerts, Stringfest, Solo and ensemble festival, and various other Menomonee Falls community events. Students enrolling in this class must have prior experience and approval of the director. Students who wish to join without prior experience are welcome, but private lessons outside of school may be necessary to catch up to the level of the class.</p>
<u>Choir 7</u> <i>Elective</i> <i>Grade 7</i>	<p>Choir members learn about their own unique instrument - their voice. Vocal training will emphasize musical skill development through learning songs in many different styles, languages, and time periods. Performance opportunities will include school programs and evening concerts as well as the annual Solo and Ensemble Festival. The fundamentals of reading music and sight singing will be a part of the overall choir curriculum.</p>

Music

Course Title	Description
<p><u>Ukulele and Songwriting Workshop</u></p> <p><i>Elective</i> Grade 7 & Grade 8</p>	<p>Students will learn how to play single note melodies and chord progressions on the ukulele. They will be able to play along with simple popular folk songs. They will learn the basics of songwriting, popular song forms and how they are put together. The second half of the class focuses on recording, arranging and composing using GarageBand (a digital audio workstation).</p>
<p><u>Introduction to GarageBand and Digital Music</u></p> <p><i>Elective</i> Grade 7 & Grade 8</p>	<p>This course will provide an introduction for students interested in digital music production. Students will explore a Digital Audio Workstation (DAW) using a project-based curriculum that highlights various techniques needed to create digital music. Students will learn how to edit, arrange, mix, sample and record audio and midi tracks to create their own music.</p>
<p><u>Band 8</u></p> <p><i>Elective</i> Grade 8</p>	<p>Eighth Grade Band consists mainly of students who have some level of proficiency on their instruments. The band meets every other day and each student receives a weekly lesson either during school or a scheduled private lesson outside of the school day. Performances include playing at Pep Assemblies for the school, our annual "Bands of the Falls", winter and spring concerts, Solo & Ensemble Festival and other musical offerings to the Menomonee Falls community. Students enrolling in 8th grade band must have prior approval from the band director.</p>
<p><u>Choir 8</u></p> <p><i>Elective</i> Grade 8</p>	<p>Choir members learn about their own unique instrument - their voice. Vocal training will emphasize musical skill development through learning songs in many different styles, languages, and time periods. Performance opportunities will include school programs and evening concerts as well as the annual Solo and Ensemble Festival. The fundamentals of reading music and sight singing will be a part of the overall choir curriculum.</p>
<p><u>Orchestra 8</u></p> <p><i>Elective</i> Grade 8</p>	<p>Orchestra 8 consists of students who have completed one or more years of musical training on a string instrument (Violin, Viola, Cello, Bass.) The orchestra meets every other day and each student is expected to receive a weekly lesson. This class works on advancing skill development in preparation for high school level music. Performances include the annual Winter and Spring concerts, Stringfest, Solo and ensemble festival, and various other Menomonee Falls community events. Students enrolling in this class must have prior experience and approval of the director.</p>

Physical Education and Health

Course Title	Description
<p><u>Physical Education</u></p> <p><i>Required Grade 6</i></p>	<p>The goal of this class is to promote <i>physical literacy</i>; specifically moving with competence and confidence in a wide variety of physical activities in multiple environments that encourage and benefit the healthy development of the whole person.</p> <p>Units include: Fitness Gram fitness testing, ultimate football, outdoor leisure games, geo-caching/orienteering, styxball, volleyball/Nitroball, circuit training, dance, basic swimming, rock climbing, table tennis and human growth and development. Regular use of IHT heart rate monitors in class will also be established. Students are expected to provide appropriate active wear (grey shirt/black shorts), school appropriate swimwear and towels, as well as supportive athletic shoes for participation.</p>
<p><u>Physical Education</u></p> <p><i>Required Grade 7</i></p>	<p>The goal of this class is to promote <i>physical literacy</i>; specifically moving with competence and confidence in a wide variety of physical activities in multiple environments that encourage and benefit the healthy development of the whole person.</p> <p>Units include: Fitness Gram fitness testing, fundamentals of tennis, soccer, disc golf, outdoor leisure games, swimming, bowling, weight training, pickle ball and cooperative team-building. Regular use of IHT heart rate monitors in class will also be established. Students are expected to provide appropriate active wear (grey shirt/black shorts), school appropriate swimwear and towels, as well as supportive athletic shoes for participation. *An extra fee will be assessed to cover the cost of the bowling unit.</p>
<p><u>Health Class</u></p> <p><i>Required Grade 7</i></p>	<p>7th grade Health Education is a required class in which students will be engaged in <i>skill-based lessons</i> and supported to work toward <i>health literacy</i>. Students will demonstrate his/her ability to access, understand, appraise, apply and advocate for health information and services in order to maintain or enhance one's own health and that of others.</p> <p>Health-related areas of instruction include personal wellness (positive self-image, decision making skills, and communications), mental health issues (stress management, depression/suicide, eating disorders), alcohol/tobacco/drug use and abuse, nutrition, Human Growth and Development, communicable and non-communicable diseases, as well as personal safety and basic first aid.</p>

Physical Education and Health

Course Title	Description
<p><u>Physical Education</u></p> <p><i>Required</i> <i>Grade 8</i></p>	<p>The goal of this class is to promote <i>physical literacy</i>; specifically moving with competence and confidence in a wide variety of physical activities in multiple environments that encourage and benefit the healthy development of the whole person.</p> <p>Units include: Fitness Gram fitness testing, speedball, tennis, softball, cardio-water games/swim, personal program weight training, badminton, team handball and floor hockey. Regular use of IHT heart rate monitors in class will also be established. Students are expected to provide appropriate active wear (grey shirt/black shorts), school appropriate swimwear and towels, as well as supportive athletic shoes for participation. *An extra fee will be assessed to cover the cost of the bowling unit.</p>
<p><u>Commit 2B Fit</u></p> <p><i>Elective</i> <i>Grade 8</i></p>	<p>Students enrolled in this class will be introduced to a variety of leisure and fitness experiences/activities with the intent that students will develop an interest or passion that will encourage them to enjoy staying physically active and make it a priority for the rest of their lives. Activities may include but are not limited to: Archery, Yoga/Meditation/Relaxation Techniques, Paddle boarding, Kayaking, Aqua Games, Weight training, Cardio workouts and use of IHT heart rate monitors and fitness tracking apps. Students will also develop an understanding of health-based careers (i.e., nutritionists, physical therapist, physical trainer, etc.)</p>

World Language

Course Title	Description
<p><u>World Languages and Cultures</u></p> <p><i>Elective Nine Week Course Grade 6</i></p>	<p>Students learn about the language and culture in countries where German and Spanish are spoken. They also receive a brief introduction to Chinese. The cultural topics will include geography, holidays, currency, and family life. In addition, students will acquire basic vocabulary in Spanish and German, (polite expressions, colors, and numbers). This class can help students decide which language to study in future grades.</p>
<p><u>German</u></p> <p><i>Elective Grade 7 This course is a prerequisite for German 8</i></p>	<p>Students are introduced to the German language through engaging and fun activities. They learn how to introduce themselves, count, tell time, state calendar expressions, weather, parts of the body, and express likes and dislikes. Meanwhile, students also learn about the culture of German speaking countries.</p>
<p><u>Spanish</u></p> <p><i>Elective Grade 7 This course is a prerequisite for Spanish 8</i></p>	<p>Students are introduced to the Spanish language through engaging and fun activities. They learn how to introduce themselves, count, tell time, state calendar expressions, weather, parts of the body, and express likes and dislikes. Meanwhile, students also learn about the culture of Spanish speaking countries.</p>
<p><u>German I</u></p> <p><i>Elective Grade 8 Prerequisite 7th Grade German</i></p>	<p>Students continue their introduction to the German language and culture through listening, reading, writing, and speaking. At this level, comprehension skills are emphasized. The description unit contains topics such as describing personality traits, emotions, physical appearance, weather, activities, and preferences; the narration unit addresses telling personal and imaginary stories; and the third unit revolves around receiving and giving information. A good dose of fun and games is guaranteed! <i>Students who meet proficiency standards for this course would enroll in German level 2 at the high school.</i></p>
<p><u>Spanish I</u></p> <p><i>Elective Grade 8 Prerequisite 7th Grade Spanish</i></p>	<p>Students continue their introduction to the Spanish language through speaking, reading, writing, listening and cultural awareness. Building vocabulary, grammar, and pronunciation are emphasized. Students learn to communicate about school, free-time activity, family, customs, and food in an immersive atmosphere. Spanish conversation is practiced using dialogs, games, partner and small group activities. <i>Students who meet proficiency standards for this course would enroll in Spanish level 2 at the high school.</i></p>

Technology and Engineering

For a video overview of all Technology and Engineering classes offered at North, please copy or retype this link in your browser: <https://vimeo.com/showcase/10840894>

Course Title	Description
<p><u>Design & Modeling – Project Lead the Way</u> <i>Elective</i> <i>Nine-week course</i> <i>Grade 6</i></p>	<p>This Project Lead the Way class is a hands-on learning and activity course designed to enrich students' understanding of Technology and Engineering and allows them to TOUCH science and math. Students will be introduced to what technology and engineering actually are as they research different career paths that could lead to future jobs. They will learn the art of measuring and sketching using state of the art 3D computer software that will provide a great foundation for CADD software knowledge. A wood project done completely in the wood's lab will give the students the opportunity to use numerous tools and machines. Lastly, the students will get a taste of automation and robotics as they learn to build and program Lego Mindstorms robots.</p>
<p><u>Energy & Environment/Green Architecture – Project Lead the Way</u> <i>Elective</i> <i>Grade 7</i></p>	<p>This Project Lead the Way class is a combination of two units that introduce students to the impact that energy has on our lives and how we design and build structures to protect ourselves from the environment while conserving it at the same time. First, students will learn about the multitude of alternative energy sources that are being developed in hopes of reducing our thirst for natural resources. Numerous hands-on activities such as building a fuel cell and researching, designing, building and testing windmill turbines help model many energy concepts. Second, students are introduced to architectural plans, construction styles, measuring and architectural sustainability culminating in the building of a balsa wood structure and the development of a floor plan for a house on 3D architectural software.</p>
<p><u>Magic of Electrons/Computer Programming— Project Lead the Way</u> <i>Elective</i> <i>Grade 7</i></p>	<p>This Project Lead the Way class is a combination of two units that will prepare students for real-world careers in the future. First, through hands-on projects including making a DC motor, creating an electromagnetic Morse code machine, soldering together a nightlight, and circuit building using Snap Circuit Kits students will explore the science of electricity and the behavior and parts of atoms, circuit design, and sensing devices. Students will acquire the basic knowledge and skills in basic circuitry design and explore the impact of electricity on our lives. Second, the students will be introduced to the basics of computer programming that will set them up for high school computer programming classes by learning a solid foundation of programming skills via Scratch software.</p>

Technology and Engineering

For a video overview of all Technology and Engineering classes offered at North, please copy or retype this link in your browser: <https://vimeo.com/showcase/10840894>

Course Title	Description
<p><u>Exploration of Media Creations</u></p> <p><i>Elective</i> <i>Grade 7 & Grade 8</i></p>	<p>A class unlike any other that focuses on video editing to create commercials for activities in our school and eventually businesses in our community. Learn how to communicate efficiently and effectively towards a target audience while enhancing your group work skills. There are no tests or quizzes, instead you'll be creating multiple commercials using digital cameras, Final Cut Pro on iMacs, and WeVideo as you work with your group to plan, shoot, and edit 30-second commercials. By the time you are through with this class you'll be more creative, a better group worker, a powerful presenter, and will have enhanced many of the soft skills businesses are looking for in their employees.</p>
<p><u>Manufacturing, Automation & Robotics – Project Lead the Way</u></p> <p><i>Elective</i> <i>Grade 8</i></p>	<p>Students trace the history, development and influence of automation and robotics as they learn about mechanical systems, energy transfer, machine automation and computer control systems. Students use the VEX Robotics® platform to design, build and program real-world objects such as traffic lights, toll booths and robotic arms. In addition, students have the opportunity to design, engineer and write computer code using (Robot C). This culminating team project consist of a moving vehicle using the VEX robotic engineering equipment from an engineering team approach.</p>
<p><u>Medical Detectives – Project Lead the Way</u></p> <p><i>Elective</i> <i>Grade 8</i></p>	<p>In this Project Lead the Way class, students play the role of real-life medical detectives as they solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, learn how the systems of the human body work together to maintain health and research future careers in biomedical sciences. Several dissections including the cow eye, sheep brain and the sheep heart will aid student understanding of our own anatomy. Students will dive into the complexities of DNA and genetic diseases including isolating their own DNA to keep as a memento. Additionally, students will analyze “crime scenes” using forensics (fingerprinting, hair/fiber analysis, blood typing, etc.) to determine who committed the crime and create a “True Crime” podcast to explain their findings.</p>

The School District of Menomonee Falls does not discriminate against pupils on the basis of sex, race, color, national origin, ancestry, creed, pregnancy, marital or parental status, sexual orientation, or physical, mental, emotional, or learning disability or handicap in education programs or activities, and provides equal access to the Boy Scouts and other designated youth groups. If any student feels there has been a discriminatory situation in regard to any of the above-named classes or in violation of Title IX, Section 504, or Title ADA, please contact the building administrator or Dr. Laura Schieffer, the Director of Pupil Services, at 262-946-2354 or schilau@sdmfschools.org.



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