



Course Registration Guide

2021-2022



ROCORI Middle School



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***Please note that courses listed in this guide are subject to change.**

Middle School Credit Requirements

Middle school students will be enrolled in classes to accumulate 27 credits throughout grades 6, 7, and 8. From the total 27 credits, 18 credits will be earned from required core academic subjects, 4 credits from required elective courses, and 5 credits from other elective courses of the student's choosing. Students may be placed into a math or reading skills class based on their performance on recent standardized assessments. Skills class will take the place of elective classes.

Core Subject Area

English	1.5 each year for a total of 4.5
Math	1.5 each year for a total of 4.5
Science	1.5 each year for a total of 4.5
Social Studies	1.5 each year for a total of 4.5

Credits – 18

Elective Courses

6th Grade

Credits – 9

Band/Choir – 1.5 credits
Ed Tech - .25 credits
Health - .25 credits
PE - .5 credits
Visual Arts - .25 credits
World Cultures - .25 credits

7th Grade

PE - .25 credits
Other (student choice) - 2.75 credits

8th Grade

Career Explorations - .25 credits
Teen Choices - .25 credits
PE - .25 credits
Other (student choice) - 2.25 credits

Elective Course Offerings

Core Subject Electives

Animal Anatomy Exploration
*Creative Writing
Exploring the Ancient World
Fantasy Math/Sports Math
Game of Life
Human Body
Land of 10,000 Topics
Modern US History Through Film
Mysterious Fiction
Playing Games with Math
Science Fiction and Fantasy
Speech and Debate
STEM

Global

Spanish 1
World Cultures

Music

Band
Choir
General Music (Gr. 6 only)
*Musical Theater

Agriculture

Intro to Agriculture
Natural Resources
Plant Science
Small/Companion Animal Science

Art

3D Art
Drawing and Painting
Mask Making
Visual Arts
World Crafts

PE/Health

*Fitness Fun for Females
Health
*IDLS
PE 6 A
PE 6 B
*PE 7/8 A
*PE 7/8 B
*Strength and Conditioning
*Team Sports

FACS

A Room of My Own
Career Exploration
Fashion and Textiles
Healthy Eats
Intro to FACS
Intro to Foods and Nutrition
Intro to Sewing
Teen Choices

Technology

Advanced Keyboarding
Digital Design 1
Digital Design 2
Ed Tech
*Keyboarding
Media Production 1
Media Production 2
Microsoft Office
PLTW Design
PLTW Modeling
PLTW Robotics 1
PLTW Robotics 2

*These courses can be taken in both 7th and 8th grade for credit

Important Course Information –

Sixth grade students will be scheduled into courses with other sixth grade students. Sixth grade students have the opportunity to choose between band and choir while the other courses have been assigned to them.

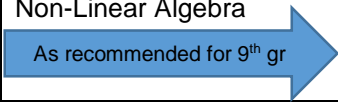
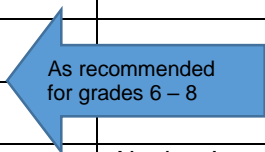
Seventh and eighth grade students will be placed into required courses with their grade level peers. Elective courses will be mixed with both seventh and eighth grade students.

Course Placement and Progression

The first step in providing a meaningful education for student is the determination of appropriate coursework. The faculty of ROCORI schools will utilize data gained from student records to determine the appropriate placement of students in core academic subjects. The school’s Response to Intervention (RtI) Team has an objective data-driven process to place students in the appropriate core courses.

Math Course Progression: Many students and parents are concerned with math course placement in the middle school and how it translates to future opportunities in the high school. The chart below identifies the typical progression of math courses in the different tracks. Students who qualify to take pre-algebra in grade 6, algebra in grade 7, and geometry in grade 8 have consistently performed at or above the 90th percentile on standardized assessments, including their three most recent standardized assessments. RMS uses data from assessment results and trends for individual students when placing them math courses. RMS uses data from the Minnesota Comprehensive Assessments (MCAs) and the STAR test.

		ROCORI High School Mathematics Progression	
Level	Regular	Advanced Math	Qualify for College Level Math gr 10
Grade			
6	Math 6 Pre-Algebra		
7	Pre-Algebra Algebra I		
8	Algebra I	Algebra I	Geometry
9	Non-Linear Algebra As recommended for 9 th gr	Advanced Geometry	Advanced Algebra II
10	Geometry	Algebra II or Advanced Algebra II	Introduction to Statistics (CEP) and Trigonometry*
11	Algebra II and Elementary Probability and Statistics	Trigonometry and/or Elem Prob & Stats OR College Trig and/or College Prob & Stats	College Algebra and/or Pre-Calculus* or Short Course Calculus
12	Trigonometry, Pre-Calculus or Consumer Math	Pre-Calculus or College Short Course Calc. or College Algebra	College Algebra or Short Course Calculus or Pre-Calculus or Calculus I*



* Class selection depends on Accuplacer test score achieved. Pre-Calculus is the perfect class for those who do not qualify for College Algebra, but wish to take a math class that will prepare them further for college.

Note: All students are required to take either Elementary Probability and Statistics or Introduction to Statistics (CEP) in high school.

ENGLISH

English 6**Course Numbers: 161, 162, 163****Grade Level: 6****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Required**

This is a 6th grade English course where students will enhance their skills in the areas of word recognition, vocabulary, reading comprehension, and literature.

Power Standards:

- Identify the exposition, rising action, climax, falling action, and resolution to determine the author's purpose.
- Use literary elements to make connections to a variety of texts.
- Identify the main idea and support it with details.
- Use context clues to find and understand answers to questions.
- Break apart new words to understand how they are used in the text.

English 7**Course Numbers: 171, 172, 173****Grade Level: 7****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Required**

7th grade English explores the world of literature through reading, viewing, listening, and writing. This course encourages cooperative learning. Students will be asked to understand, make decisions, and accept responsibility for their individual learning process. This class will expose students to a variety of literary genre.

Power Standards:

- Making connections and drawing conclusions based on provided information, recognizing facts versus opinions, understanding the author's point of view, purpose, audience and message.
- Using and recognizing the elements of fiction, utilizing character analysis to understand the effect on plot.
- Recognizing, identifying, using, and understanding figurative language.
- Writing in a variety of formats, including: poetry, stories, essays, editorials, letters, directions, and research reports.
- Understanding and using the conventions of standard English.

English 8**Course Numbers: 181, 182, 183****Grade Level: 8****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Required**

English 8 is a course designed to build skills in the reading and study of literature, vocabulary, listening and speaking, and in clear and creative written communication. Students will read and write short stories, read class and independently-chosen novels, read and write non-fiction essays, and read and write poetry.

Power Standards:

- Paraphrase the main ideas and supporting details.
- Distinguish facts from opinions.
- Critically read to determine an author's purpose, point of view, audience and message/theme.
- Analyze the effects of sound, form, and figurative language in prose and poetry.
- Determine the meaning of unknown words by using a dictionary and/or context clues.
- Use quality speaking and listening skills in discussions and in the sharing of writing.
- Become increasingly proficient in correcting grammatical errors, understanding sentence parts, and utilizing Standard English in writing.

English Electives

Creative Writing

Course Number: 154

Grade Level: 7 and 8

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade

This elective will explore the writing process and creativity. Students will be asked to write in a variety of formats and on a variety of subjects – different genres will be addressed from one year to the next. Students will discuss and utilize many of the editing and publishing aspects of writing to enhance the experience.

Power Standards:

- Write narratives and other creative texts to develop real or imagined experiences or events using effective techniques.
- Use a writing process to develop and strengthen writing including planning, drafting, revising, editing, rewriting, and publishing.
- Demonstrate an understanding of figurative language, figures of speech, and word nuances.

Science Fiction and Fantasy

Course Number: 158

Grade Level: 7 and 8

LENGTH OF COURSE: 1 Term

CREDITS: .25

new

COURSE DESCRIPTION: Elective

If you enjoy stories and books about things that seem too fantastic to be real, this is the class for you! We will be reading and exploring science fiction literature through novels and short stories, plus viewing some films that utilizes this genre. Because this is an English-based class, we will also write our own science fiction/fantasy short stories. Come have fun and explore the worlds beyond our own, perhaps we will find our own Utopia!

Power Standards:

- Read closely to determine what the text says explicitly and to make logical inferences from it.
- Determine central ideas or themes of a text and analyze its development over the course of the text.
- Analyze how individuals, events and ideas develop and interact over the course of a text.

Mysterious Fiction

Course Number: 151

Grade Level: 7 and 8

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Students will learn about the genre of mystery. Students will read, view, and listen to various mysteries, including tales of horror and detective stories, in the forms of interactive plays, original texts, and game and movie adaptations of classic mysteries. Students will also write their own mystery plays or stories and present them in class.

Power Standards:

- Analyze how particular lines of dialogue or incidents in a story or drama propel the action, reveal aspects of a character, or provoke a decision.
- Analyze how differences in points of view of the characters and audience create such effects as suspense and dramatic irony.
- Write narratives to develop imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.

LENGTH OF COURSE: 1 Term**CREDITS: .25****COURSE DESCRIPTION: Elective**

Students will develop and perform different types of speeches and will explore the elements of speeches written for a variety of purposes.

Speeches will range from informative to persuasive to “great” speeches to interpretive literary speeches. Students will also engage in discussion and learn and practice the procedures of debate.

Power Standards:

- Engage effectively in a range of collaborative discussions.
- Analyze the purpose of information presented in diverse media and formats and evaluate the motives behind its presentation.
- Delineate a speaker’s argument and specific claims, evaluating the soundness of the reasoning and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.
- Adapt speech to a variety of contexts and tasks.

MATH

Grade 6:

Math 6

Course Numbers: 261, 262, 263

Grade Level: 6

LENGTH OF COURSE: 6 Terms

CREDITS: 1.5

COURSE DESCRIPTION: Required

This is the regular math class for grade six. This course is a 6th grade math course where students will learn new math skills and expand upon those introduced in 5th grade in the areas of Number and Operations, Algebra, Geometry and Measurement, and Data Analysis and Probability.

Power Standards:

- Solving problems using decimals, fractions, percent and ratios.
- Solving equations and inequalities using variables.
- Solving real world problems using probability.
- Use patterns, tables, graphs and rules to solve real world problems.
- Explore geometry, finding missing angles, perimeter, surface area and volume.

Pre-Algebra

Course Numbers: 261, 262, 263

Grade Level: 6

LENGTH OF COURSE: 6 Terms

CREDITS: 1.5

COURSE DESCRIPTION: Required

This is the advanced math course for grade six. This course will emphasize algebra readiness by engaging students in a variety of problem solving and reasoning skills. The following concepts will be covered: number sense, integers, solving equations, statistics, and probability.

Power Standards:

- Read, write, represent and compare positive and negative rational numbers, expressed as integers, fractions, and decimals.
- Calculate with positive and negative rational numbers, and rational numbers with whole number exponents, to solve real-world and mathematical problems.
- Solve real-world problems using variables and representing mathematical equations both graphically and numerically.
- Use mean, median, and range to draw conclusions about data and make predictions.
- Calculate probabilities and reason about probabilities using exponents to solve real-world and mathematical problems.

Grade 7:

Pre-Algebra

Course Numbers: 271, 272, 273

Grade Level: 7

LENGTH OF COURSE: 6 Terms

CREDITS: 1.5

COURSE DESCRIPTION: Required

This is the regular math class for grade seven. This course will emphasize algebra readiness by engaging students in a variety of problem solving and reasoning skills. The following concepts will be covered: number sense, integers, solving equations, statistics, and probability.

Power Standards:

- Read, write, represent and compare positive and negative rational numbers, expressed as integers, fractions, and decimals.

- Calculate with positive and negative rational numbers, and rational numbers with whole number exponents, to solve real-world and mathematical problems.
- Solve real-world problems using variables and representing mathematical equations both graphically and numerically.
- Use mean, median, and range to draw conclusions about data and make predictions.
- Calculate probabilities and reason about probabilities using exponents to solve real-world and mathematical problems.

Algebra	Course Numbers: 271, 272, 273	Grade Level: 7
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LENGTH OF COURSE: 6 Terms

CREDITS: 1.5

COURSE DESCRIPTION: Required

This is the advanced math class for grade seven. This course will emphasize high school readiness by exposing students to a variety of algebra concepts. This will include: solving equations, factoring, graphing, functions, line of best fit, inequalities, solving systems and radicals.

Power Standards:

- Read, write, compare, classify and represent real numbers, and use them to solve problems in various contexts.
- Represent real-world and mathematical situations using equations and inequalities involving linear expressions. Solve equations and inequalities symbolically and graphically. Interpret solutions in original context.
- Interpret data using scatterplots and approximate lines of best fit. Use lines of best fit to draw conclusions about data.

Grade 8:

Algebra	Course Numbers: 281, 282, 283	Grade Level: 8
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LENGTH OF COURSE: 6 Terms

CREDITS: 1.5

COURSE DESCRIPTION: Required

This is the regular math class for grade eight. This course will emphasize high school readiness by exposing students to a variety of algebra concepts. This will include: solving equations, factoring, graphing, functions, line of best fit, inequalities, solving systems and radicals.

Power Standards:

- Read, write, compare, classify and represent real numbers, and use them to solve problems in various contexts.
- Represent real-world and mathematical situations using equations and inequalities involving linear expressions. Solve equations and inequalities symbolically and graphically. Interpret solutions in original context.
- Interpret data using scatterplots and approximate lines of best fit. Use lines of best fit to draw conclusions about data.

Geometry	Course Numbers: 281, 282, 283	Grade Level: 8
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LENGTH OF COURSE: 6 Terms

CREDITS: 1.5

COURSE DESCRIPTION: Required

This is the advanced math class for grade eight. In Geometry, students will develop mathematical concepts of arithmetic and algebra while studying two and three-dimensional relationships. Students will study points, lines, circles, triangles, polygons, solid figures, and deductive proofs.

Power Standards:

- Construct logical arguments and write proofs of theorems and other results in geometry.
- Apply properties of parallel and perpendicular lines, angles, congruent and similar figures, polygons, circles, and trigonometric ratios to solve problems.

Math Electives

The Game of Life	Course Number: 251	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Do you have what it takes to make it in the real world? This course is designed to explore the financial logistics of life on your own (i.e. Plan for college, find a job, and purchase all of life's necessities).

Power Standards:

- Calculate with positive and negative rational numbers, and rational numbers with whole number exponents, to solve real-world and mathematical problems.
- Read, write, represent and compare positive and negative rational numbers, expressed as integers, fractions and decimals.

Fantasy Math/Sports Math	Course Number: 252	Grade Level: 7 and 8
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Fall/Winter

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

You will utilize professional sports data to explore math concepts. Depending on the time of year the course is taught, you could be using players and statistics from the NFL, NBA, or MLB. During the first two trimesters, you may draft your own team and compete against your classmates in a fantasy league. During the third trimester, you may explore March Madness and the start of the baseball season. Concepts covered will include mean, median, and range. We will also explore different ways to compare data by making line graphs, bar graphs and circle graphs.

Power Standards:

- Display and interpret data in a variety of ways, including circle graphs and histograms.
- Use mean, median and range to draw conclusions about data and make predictions.

New

Playing Games with Math	Course Number: 253	Grade Level: 7 and 8
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Winter/Spring

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Are you not convinced Math is a part of the real world? How about it in games! In this course you will explore the different ways that Math is incorporated into timeless traditional games, newer board games, outdoor games, and maybe even video games! Be prepared to work on computational Math skills like you never have before!

Power Standards:

- Calculate with positive and negative rational numbers, and rational numbers with whole number exponents, to solve real-world and mathematical problems.
- Read, write, represent and compare positive and negative rational numbers, expressed as integers, fractions and decimals.

SCIENCE

Physical Science**Course Numbers: 361, 362, 363****Grade Level: 6****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Required**

Sixth grade Science covers a variety of physical science topics through four main units: Topics of study in Science 6 include the Nature of Science and Engineering, Matter, Forces and Motion, and Energy.

Power Standards:

- Identify a common engineered system and evaluate its impact on society.
- Substances can undergo physical and chemical changes.
- Motion of an object can be described in terms of speed, direction and change of position.
- Waves involve the transfer of energy without the transfer of matter.

Life Science**Course Numbers: 371, 372, 373****Grade Level: 7****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Required**

7TH Grade Life Science incorporates learning through a variety of activities with an emphasis on hands-on learning. The course includes lessons in safety, metrics, genetics, evolution, classification, botany, zoology, and ecology. Life Science class surveys the diversity of living things with an emphasis on relationships and relatedness between organisms.

Power Standards:

- Living organisms contain cells that are organized to provide for the necessary functions of life.
- Interactions among organisms allow energy to flow for the support of natural systems.
- Species differentiate through mutations occurring during reproduction.
- The interaction between humans and the environment causes change within both.
- Science is a way of knowing about the natural world and is characterized by empirical criteria, logical argument and skeptical review.

Earth Science**Course Numbers: 381, 382, 383****Grade Level: 8****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Required**

8TH Grade Earth Science incorporates learning through a variety of activities with an emphasis on hands-on learning. The course includes lessons in safety, metrics, astronomy, geology, and weather. This class covers the relationships between events and characteristics of the earth's structure.

Power Standards:

- Science is a way of knowing about the natural world and is characterized by empirical criteria, logical argument and skeptical review.,
- Scientists and engineers use models to study, predict, test, and apply their learning.
- Forces within the Earth create geologic formations that can be identified through observations of patterns.
- In order to maintain and improve their existence, humans interact with and influence Earth systems.

Science Electives

The Human Body

Course Number: 352

Grade Level: 7 and 8

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Through a variety of student-driven investigations, this elective centers upon the study of human systems. Students will improve their knowledge with a diverse array of hands-on activities.

Power Standards

- Describe how the organs in the respiratory, circulatory, digestive, nervous, skin and urinary systems interact to serve the needs of vertebrate organisms.
- Students will analyze and demonstrate the relationships between the structure and function of tissues, organs, and systems as well as relationships between body systems.
- Compare and contrast the information gained from experiments, simulations, video or multimedia sources with that gained from reading a text on the same topic.

STEM

Course Number: 353

Grade Level: 7 and 8

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

In this class, students will work individually and collaboratively to design, engineer, and construct. Students will have the opportunity to enhance their **Science, Technology, Engineering, and Math (STEM)** skills in this educational, yet, exciting class. Teacher and Students will choose from a variety of engaging projects including bridges, cardboard boats, egg drops, etc...*Out of pocket expenses may be incurred in this class.*

Power Standards:

- Explain and give examples of how, in the design of a device, engineers consider how it is be manufactured, operated, maintained, replaced, and disposed of.
- Develop possible solutions to an engineering problem and evaluate them using conceptual, physical, and mathematical models.

New

Animal Anatomy Exploration

Course Number: 355

Grade Level: 7 and 8

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Student will explore various anatomies of organisms in the animal kingdom. Through hands-on investigation students will explore the external and internal characteristics of various organisms. Students will compare and contrast body structures to discover the anatomical relationships between organisms in the animal kingdom.

NOTE: THIS CLASS WILL INCLUDE MULTIPLE DISSECTIONS OF ORGANISMS.

SOCIAL STUDIES

MN Studies**Course Numbers: 461, 462, 463****Grade Level: 6****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Required**

6th grade students will learn about the History of Minnesota from the ice age to around World War II focusing on Geography, Economy, and Civic understandings. The use of graphs, maps, personal accounts (written and verbal), and other primary and secondary resources will be used to gain perspective.

Power Standards:

- Engage in historical inquiry.
- Examine the relationship levels of government
- Find locations of cities, landmarks, and topographical features using a map to see how resources affected settlement patterns.
- Analyze the influence of market-based economy at the local and national levels.

US Studies**Course Numbers: 471, 472, 473****Grade Level: 7****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Required**

7th Grade US History students will use skills of historical and geographical analysis to explore the early history of the United States and understand ideas and events that strengthened our country. Students will continue to learn fundamental concepts in civics, government, economics, culture, and geography as they study United States. Basic geography skills, cooperative learning activities, current events, authentic assessments, and research projects will be used to enhance student learning.

Power Standards:

- Acquire historical skills... including chronological thinking, use of historical resources, historical inquiry, investigation, research, analyze evidence, and draw conclusions.
- Acquire knowledge of United States Citizenship. (rights and responsibilities)
- Describe the relationship and impact the US has in regards to other nations around the world.
- Support Literacy and Mathematic skills.

Global Studies**Course Numbers: 481, 482, 483****Grade Level: 8****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Required**

8th grade global studies is a course in world geography designed with a global scope. Students will gain knowledge about and learn to use globes, maps, almanacs, textbooks, periodicals, and electronic resources. Current events and citizenship are also explored.

Power Standards:

- Determine meanings of words and phrases used in geography.
- Analyze text structure.
- Analyze, use, and create visual information including charts, graphs, maps, graphic organizers, videos, etc.
- Distinguish among fact, opinion, and reasoned judgment.
- Read and comprehend social studies texts proficiently.

Social Studies Electives

Exploring the Ancient World	Course Number: 453	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Exploring the Ancient World will cover a variety of Ancient World topics. Students will research, analyze information, compare and contrast the past and present, determine cause and effect, and other reading and writing essentials.

Power Standards:

- Determine the central ideas or information of a primary or secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
- Historical Inquiry – A process in which multiple sources and different kinds of historical evidence are analyzed to draw conclusions about how and why things happened in the past.

Modern US History Through Film	Course Number: 450	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Modern U.S. History Through Film will explore United States history from 1945 to present and how it has been depicted through movies. In this course students will research the major people and events of U.S. History from 1945 to present. Students will then use the knowledge they have gained to analyze the facts and fictions found in the films that depict those events in U.S. History 1945-Present.

Power Standards

- Use primary and secondary sources to analyze the accuracy of retellings of historical events.
- The be able to identify the major people and events of United States history after World War II that have shaped our recent history.

Land of 10,000 Topics	Course Number: 451	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Land of 10,000 Topics will cover a variety of Minnesota topics and is an extension of the concepts addressed in the 6th grade core course. Students will learn about MN people, places, and things through hands-on activities and research.

Power Standards:

- Produce clear and coherent writing in which the development, organization, and style are appropriate to discipline, task, purpose, and audience.
- Identify the major Minnesota political figures, ideas, and industries that have shaped or continue to shape Minnesota and the US today.

AGRICULTURE

Intro to Agriculture	Course Numbers: 700	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Make ice cream. Care for dogs and cats. Explore gardening, vegetables, flowers, and trees. In this class students will be given the opportunity to sample agricultural education course offerings through units in animals, plants, natural resources, and agriculture mechanics.

Small/Companion Animal Science	Course Numbers: 701	Grade Level: 8
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PREREQUISITE: Pass 7th grade science

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

In this class, students will discover the world of companion animals such as dogs, cats, rodents, birds, fish, and reptiles. Students will explore different breeds, care and management, disease and health, and more. Veterinary medicine for companion animals will also be discussed. Students may work with live animals to learn more about them and how to care for them.

Plant Science (Spring)	Course Numbers: 702	Grade Level: 8
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PREREQUISITE: Pass 7th grade science

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

In this course, students will use live plants to learn about natural science and plant cultivation. This class will use the school greenhouse to teach students aspects of plant science such as plant reproduction, genetics, and growth. Students will see first-hand how plant growth and production occurs by choosing and growing their own greenhouse crops. Students will explore both traditional and hydroponic plant production systems and pest management and plant diseases.

Natural Resources	Course Numbers: 703	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Hunting, fishing, and nature walking every day! Explore and learn about the resources that surround us and understand the impact we have on our environment. This class is designed to give students hands on and applied learning experience with many different natural resources in our community. Students will use a variety of videos and field trips to better understand the concepts throughout this class.

ART

3D Art**Course Numbers: 574****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

Tired of making “flat” art and want to try some “fat” art? Look at some unusual types of three dimensional (3D) art, then design and produce your own sculptures. We will be using some really different materials and you can let your creativity run big and wild.

Power Standards:

- Create original three dimensional artworks in a variety of artistic contexts.
- Demonstrate the characteristics of the tools, materials, and techniques of different media for intentional effects.
- Revise artworks based on the feedback of others, self-reflection and artistic intention.

Drawing and Painting**Course Numbers: 571****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

Do you love to draw and paint? In this class, you’ll get to create your own art works in the styles of some wild and crazy artists. Depending on the time available, you’ll get to design and create a large variety of art in various styles.

Power Standards:

- Create original two and three dimensional artworks in a variety of artistic contexts.
- Demonstrate the characteristics of the tools, materials, and techniques of different media for intentional effects.
- Revise artworks based on the feedback of others, self-reflection and artistic intention.

Mask Making**Course Numbers: 573****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

Students will explore 3-5 distinct cultures and their mask making. Students will then design and produce their own masks using similar materials and methods as those studied. Students will gain exposure to masks from a variety of cultures including Egypt, Native America, Africa, and modern.

Power Standards:

- Compare and contrast the connections among visual artworks, their purpose, and the personal, social, and cultural contexts.
- Demonstrate the characteristics of the tools, materials, and techniques of different media for intentional effects.
- Revise artworks based on the feedback of others, self-reflection and artistic intention.

Visual Arts**Course Numbers: 567****Grade Level: 6****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Required**

The Visual Arts classes will study the cultural influences and effects of artistic foundations and experiment with a variety of mediums and techniques to achieve intentional effects.

Power Standards:

- Analyze the elements and principles of visual art and how they are used in creation, presentation, and response to visual works.
- Compare and contrast the connections among visual artworks, their purposes, and the personal, social, and cultural contexts.
- Create original two and three dimensional artworks in a variety of artistic contexts.

World Crafts**Course Numbers: 572****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

Try some unusual crafts from other countries. Look at what was going on in that country during a time period to produce these unique styles of art. Students will then design and produce their own artworks in the selected country's style.

Power Standards:

- Compare and contrast the connections among visual artworks, their purpose, and the personal, social, and cultural contexts.
- Demonstrate the characteristics of the tools, materials, and techniques of different media for intentional effects.
- Revise artworks based on the feedback of others, self-reflection and artistic intention.

FACS

Intro to FACS**Course Number: 656****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade**

This course introduces students to content related to Family and Consumer Sciences. The course serves as an entry level course for the FACS program. Students will learn about FCCLA and leadership opportunities, relationships, child development, fashion design, textile construction, interior design, nutrition and food preparation and money management. Students will be involved in cooperative learning, hands-on projects and lab experience. Mini-projects will be done in each area. A foods lab with mise en place; how to sew on a button; overview of ages and stages of child development and making a toy that teaches; how to write a check; a mini design project; mini fashion project; family meal project; and an opportunities to participate in FCCLA sponsored events offered at the time of the class.

Power Standards:

- Personal and Family Financial Literacy
- Preparing and Serving Food
- Positive Family Relationships
- Caring for Children and Others
- Leadership for Life
- Demonstrate knowledge, skills and practices in interior, textiles and apparel

A Room of My Own**Course Number: 655****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

In this course you will have the opportunity to investigate the process of design from the perspective of an interior designer. You will be the designer and you will be asked to study, research and design a great room of your own. Prior to designing your great room, you will learn about: architectural lettering; the elements and principals of design; the color wheel; color schemes; Maslow's Hierarchy of Needs as it relates to interior design; traffic patterns; living zones; floor plans and elevations; blueprint symbols; budgets; description of a client; presentation boards and interior designers. You will pull the above list together to create a great room. You will display your great room on a presentation board and in 3-d on the computer. You will learn to think like a designer.

Power Standards:

- Demonstrate design concepts with interiors and fabrics.
- Create a floor plan and arrange furniture placement
- Explore current technology

Career Exploration**Course Number: 680****Grade Level: 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Required**

This class is designed to give students an opportunity to consider future occupational interests. Students will participate in several personal assessments to identify things like strengths, personality, areas of intelligence and personal values. They will use this information to discover occupations that would be of interest to them and that meet their areas of interest and their skills. Students will identify a career pathway and create a high school plan to include activities to be involved in and courses to take throughout their high school career.

Power Standards:

- Students will acquire the skills to investigate the world of work in relation to knowledge of self and to make informed career decisions.
- Students will understand the relationship between personal qualities, education, training and the world of work.
- Students will employ strategies to acquire career information and identify career goals.

Fashion and Textiles	Course Number: 654	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

In this course students will learn what is beauty and what is fashion. They will create a fashion logo, fashion portfolio and a fashion sketchbook. They learn what it takes to be in the fashion industry – from sketch to runway. Students will learn: the history of fashion; the difference between a fad and a classic; the why's of clothing; how fabric is made; how to dye and print fabric; create a fabric accessory; a project runway project and decide if they have what it takes to be a fashion designer.

Power Standards:

- Demonstrate knowledge, skills and practices in textiles and apparel.
- Design concepts: Identify design concepts used in fashion and apparel, to include: Demonstrate design concepts with fabrics, and Explore current technology use for apparel.
- Explore Careers: Career pathway and career research.

Healthy Eats	Course Number: 652	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Healthy eats is a class designed to teach and motivate students about nutrition. The students will be able to obtain, interpret, and understand basic health information in order to make smart decisions when it comes to nutrition. Students will learn about the digestive system, understand the role of protein, fats, carbohydrates, and sugar in the body, and identify high sources of vitamins and minerals. Lastly, students will plan and prepare healthy snacks.

Power Standards:

- Analyze the effect of nutrients on health, appearance, and peak performance.
- Analyze sources of food and nutrition information, including food labels, related to health and wellness.

Foods and Nutrition	Course Number: 651	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

Students will learn food and kitchen safety. They will also learn basic food preparation techniques and make several food products during this class.

Power Standards:

- Identify characteristics of major food-borne pathogens, their role in causing illness, and methods of prevention, and safe handling procedures.
- Prepare various food items using safe handling and proper preparation techniques.

Intro to Sewing**Course Number: 653****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

Students will learn how to use a sewing machine to make fun and useful items. Students will sew a sewing sample, a pillowcase and a duffle bag. Students will also complete a clothing care unit. Project Construction: Use sewing techniques, including: Technical Reading, Problem Solving, Self-Motivation and Time Management, Demonstrate accuracy in measuring, cutting and sewing techniques to produce a project. Out of pocket expenses may be incurred in this class.

Power Standards:

- Demonstrate basic skills for making and altering clothing products and apparel.
- Demonstrate skills in using a sewing machine for construction of a duffle bag.
- Explain processes for creating fibers, yarn, woven, and knit fabrics, and non-woven textile products.

Teen Choices**Course Number: 681****Grade Level: 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Required**

The course to teach and motivate students to make positive decisions that affect their life now and into the future. Students will learn about values, decision-making, peer pressure, peer relationship skills and positive communication. During this class all students will also learn about child care and parenting and will experience the responsibility of parenting by caring an infant simulator for one weekend.

Power Standards:

- Describe the effects of self-esteem and self-image on relationships in career and family settings.
- Demonstrate communication skills that contribute to positive relationships.
- Experience the demands of caring for an infant and reflect on personal readiness for parenting.

GLOBAL

World Cultures

Course Number: 196

Grade Level: 6

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Required

The goal of the sixth grade world culture class is to help students develop an understanding of their world through an examination of a variety of world culture issues. The student will accomplish this through comparing current events, people, geography, and economic factors on the development of various cultures. The students will build understandings that bridge culture and ethnic differences.

Power Standards:

- Students acquire information and perspectives through use of authentic materials in the world languages and from the cultures.

Spanish 1

Course Numbers: 190, 191

Grade Level: 8

PREREQUISITE: Student needs to meet or exceed district reading benchmarks

LENGTH OF COURSE: 4 Terms

CREDITS: 1

COURSE DESCRIPTION: Elective

Students in Spanish I will develop the foundational skills necessary to start and continue their study of the language. Students will develop communication skills in relation to reading, writing, listening, and speaking. Learning activities will be varied to build on knowledge and account for differences in learning styles. Spanish I is designed to prepare students for future study in high school. This course and grade will be part of the student's high school transcript.

Prerequisite: Student needs to meet or exceed district reading benchmarks.

Power Standards:

- Students recognize that different languages use different patterns to communicate and can apply this knowledge to their own language.
- Students convey information, concepts, and ideas to listeners and readers for a variety of purposes.

MUSIC

Band	Course Numbers: 564, 565, 566	Grade Level: 6
	Course Numbers: 530, 531, 532	Grade Level: 7
	Course Numbers: 535, 536, 537	Grade Level: 8

LENGTH OF COURSE: 6 Terms

CREDITS: 1.5

COURSE DESCRIPTION: Elective – Band and/or Choir or General Music is required in grade 6

These courses focus on beginning and continuation of the development of the young musicians' ability to perform on a given instrument. Musical experiences are gained through a variety of styles and composers. Band members will participate in daily rehearsals and perform in concerts. Beginning band members will also have weekly lessons, outside of the daily rehearsal. Instruments and supplies may require rental and/or purchase.

Power Standards:

- Demonstrate the ability to read and notate music.
- Demonstrate proper tone production and articulation while performing on a given instrument.
- Rehearse and perform multiple works of music in a variety of styles.

Choir	Course Numbers: 561, 562, 563	Grade Level: 6
	Course Numbers: 510, 511, 512	Grade Level: 7
	Course Numbers: 515, 516, 517	Grade Level: 8

LENGTH OF COURSE: 6 Terms

CREDITS: 1.5

COURSE DESCRIPTION: Elective – Choir and/or band or General Music is required in grade 6

This course focuses on continuing the development of the young singers' voices and how to use their instrument in a healthy manner. Musical experiences are gained through the use of a variety of styles and composers. Choir members will participate in daily rehearsals and perform in concerts. There are opportunities to perform as a soloist and in small groups, as well as, singing for special events.

Power Standards:

- Demonstrate the ability to read and notate music.
- Demonstrate proper tone production and articulation while singing.
- Rehearse and perform multiple works of music in a variety of styles.

Band and Choir	Course Numbers: 540, 541, 542	Grade Level: 6
	Course Numbers: 545, 546, 547	Grade Level: 7
	Course Numbers: 527, 528, 529	Grade Level: 8

LENGTH OF COURSE: 6 Terms

CREDITS: 1.5

COURSE DESCRIPTION: Elective – Choir and/or band or General Music is required in grade 6

Students in this course alternate every other day between band and choir or with a schedule established between the band and choir teacher.

*Students in grade 6 are required to take band, choir, band and choir, or general music.

General Music**Course Numbers: 568, 569, 570****Grade Level: 6****LENGTH OF COURSE: 6 Terms****CREDITS: 1.5****COURSE DESCRIPTION: Elective – Choir and/or band or General Music is required in grade 6**

This Course focuses on the continuation of students' musical development including music theory, music history, music composition and performance. This project-based class gives students a broad experience in many genres and areas of music and explores creativity and connection between the arts.

Power Standards:

- Compare and contrast connections between the arts
- Analyze and Interpret a variety of musical works and performances
- Incorporate the creative process while creating or revising a composition

Musical Theater**Course Number: 509****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade**

Is there an "Inner Performer" in you just dying escape? Love to sing, have fun and act goofy? Do you have a dramatic side? This six week class is for you!! During this intensive six week crash course in basic theater, (including acting, singing, and basic movement) you will have the opportunity to perform a "mini-musical" at the end of the class.

Power Standards:

- Acting by developing basic acting skills to portray characters that interact in improvised and scripted scenes.
- Singing, alone and with others, a varied repertoire of music.
- Evaluating music and music performances.
- Understanding relationships between music, the other arts, and disciplines outside the arts.

*Students in grade 6 are required to take band, choir, band and choir, or general music.

PE/HEALTH

**All students in grades 7 and 8 need to take one PE elective course each year in grades 7 and 8.*

Fitness Fun for Females	Course Number: 878	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade

This course is designed with female fitness in mind. The course will be one term in length. The focus will be on cardio health, strength, and life time activities. Some of the activities that may be included are: rollerblading, circuit training, cardio workouts, yoga, water aerobics, relaxation techniques and self-defense.

Power Standards:

- Values physical activity for health, enjoyment, challenge, self-expression, and social interaction.

Health	Course Number: 862	Grade Level: 6
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Required

This class will be a one term required class that uses Health Education Today curriculum. The course will cover mental and emotional health, decision making skills, drug awareness, body image and nutrition.

Power Standards:

- Students will demonstrate the ability to use decision-making skills.
- Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- Students will demonstrate the ability to use goal-setting skills to enhance health.

IDLS	Course Number: 873	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade

Individual, Dual, and Lifetime Sports includes the lifetime sports of bowling, table tennis, pickle ball, tennis, badminton, bean bags, cardiovascular fitness, swimming, and can jam.

Power Standards:

- Demonstrates competency in motor skills motor skills and movement patterns needed to perform a variety of physical skills.
- Students will adapt and combine skills to meet the demands of increasingly complex situations of selected movements.

PE 6 A and B	Course Numbers: 860, 861	Grade Level: 6
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LENGTH OF COURSE: 2 Terms

CREDITS: .50

COURSE DESCRIPTION: Required

This will be a required class and will be a combination of life sports, individual sports, and team sports. Swimming will also be included in this course.

Power Standards:

- Achieves and maintains a health-enhancing level of fitness.
- Participates regularly in physical activity.

PE 7/8 A	Course Number: 870	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade

These will be general physical education classes and will be a combination of life sports, individual sports, and team sports. Swimming will be included in both of these courses. Units that are offered during a specific term will be dependent on weather. For example, soccer would be offered during terms 1,2, 5, and 6, but not during terms 3 or 4.

Power Standards:

- Achieves and maintains a health-enhancing level of fitness.
- Participates regularly in physical activity.

PE 7/8 B	Course Number: 871	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade

These will be general physical education classes and will be a combination of life sports, individual sports, and team sports. Swimming will be included in both of these courses. Units that are offered during a specific term will be dependent on weather. For example, soccer would be offered during terms 1, 2, 5, and 6, but not during terms 3 or 4.

Power Standards:

- Achieves and maintains a health-enhancing level of fitness.
- Participates regularly in physical activity.

Strength and Conditioning	Course Number: 872	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade

This class is designed to improve strength, endurance, and an individual's overall fitness level. There will be strength training and conditioning exercises provided in a variety of activities. The ROCORI middle school weight room and wrestling room will be utilized for this class. Students will be lifting Monday, Wednesday, Friday and Cardio on Tuesday and Thursday weekly.

Power Standards:

- Achieves and maintains a health-enhancing level of fitness.
- Values physical activity for health, enjoyment, challenge, self-expression, and social interaction.

Team Sports	Course Number: 874	Grade Level: 7 and 8
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LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade

This class is designed for students who enjoy competition in sports such as slow pitch softball, flag football, volleyball, basketball, floor hockey, soccer, swimming (water polo), broomball, team handball, bowling, and ultimate frisbee.

Power Standards:

- Demonstrates understanding of movement concepts, principles, strategies and tactics as they apply to the learning and performance of physical activities.
- Exhibits responsible personal and social behavior in physical activity settings.

TECHNOLOGY

Ed Tech

Course Number: 760

Grade Level: 6

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Required

Ed Tech will offer opportunities to develop 21st Century skills to effectively, efficiently and responsibly utilize technology and information resources to communicate, problem-solve and collaborate in an ever-changing, global society. Topics covered include: keyboarding practice, Microsoft Office basics, computer and networking basics, computer animation, online presentation, cyber safety/social networking, & research skills using Electronic Library of Minnesota (ELM) databases.

Power Standards:

- Demonstrate understanding and communicate effectively through listening and speaking.
- Critically analyze information found in electronic and print media, and will use a variety of these sources to learn about a topic and represent ideas.

Keyboarding

Course Number: 754

Grade Level: 7 and 8

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective This class can be taken in both 7th and 8th grade

This course will emphasize the proper use of a keyboard and point out that keyboarding skills are essential in today's competitive workplace. At the start of the class, drills will be incorporated to develop proper techniques. Other activities such as business and personal letters will be completed.

Power Standards:

- Demonstrate proper keyboarding skills.
- Type using the touch method.
- Type with a reasonable degree of speed and accuracy.
- Set up letters and materials in proper form.

Advanced Keyboarding

Course Number: 761

Grade Level: 7 and 8

PREREQUISITE: Keyboarding

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

This course is designed to advance the student to develop speed and accuracy using the techniques developed in keyboarding using the touch method and through computer lab exercises. Keyboarding software and web-based applications will be used throughout the course. **Prerequisite: Keyboarding**

Power Standards:

- Demonstrate proper keyboarding skills.
- Type using the touch method.
- Type with a reasonable degree of speed and accuracy.
- Set up letters and materials in proper form

Media Production 1**Course Number: 756****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

Plan, script, and produce media projects, using a variety of video / audio creation, and editing applications. Learn to collaborate and create public service announcements, interviews, news casts, animations, and music videos. Students will also learn to make creative, dynamic presentations using iMovie. * Students will also learn to fly drones that record videos and take photos.

Power Standards:

- Understand, analyze, and use different types of print, digital and multimodal media.
- Create an informative multimedia work or a piece of digital communication.
- Demonstrate a developmentally appropriate understanding of copyright.

New**Media Production 2****Course Number: 757****Grade Level: 7 and 8****PREREQUISITE: Media Production 1****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

Media Production 2 builds on skills acquired in Media Production 1. Plan, script, and produce media projects, using a variety of video / audio creation, and editing applications. Learn to collaborate and create public service announcements, interviews, news casts, animations, and music videos. Students will also learn to make creative, dynamic presentations using iMovie. * Students will also learn to fly drones that record videos and take photos.

Microsoft Office**Course Number: 755****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

This course will explore three parts of the Microsoft Office Software Suite. Word, PowerPoint, and Excel will be taught in an introductory setting. The importance of these applications in today's technological world will be emphasized. Students will gain the skills to create letters, reports, outlines, spreadsheets, and computer visuals.

Power Standards:

- Create and edit a Word document that contains tables and charts.
- Create worksheets that contain formulas.
- Create a slideshow presentation utilizing transition and design features.

PLTW Design**Course Number: 750****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

Students enrolled in **Project Lead The Way (PLTW) Design** will explore five lessons to introduce the engineering process. Units of study include measuring, design tools, sketching, dimensioning, and production. Students will be introduced to the skills necessary to utilize plan and use precision tools and software in the engineering process.

Power Standards:

- Develop an understanding of the attributes of design.
- Compare and integrate quantitative or technical information expressed in text with information expressed visually

PLTW Modeling**Course Number: 751****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective**

Students enrolled in Modeling will explore six lessons to continue the study of engineering. Units of study include measuring, sketching, design, and production. Students will be introduced to technological skills and tools to aid in the engineering process.

Power Standards:

- Develop an understanding of the role of troubleshooting research and development, invention, innovation, and experimentation in problem-solving.
- Precisely follow multi-step procedures when carrying out experiments, designing solutions, taking measurements, or performing technical tasks.

PLTW Robotics 1**Course Number: 752****Grade Level: 7 and 8****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective****Design, Build, and Program a Robot!****Learn how creative thinking and problem solving can change your world!**

Students trace the history, development, and influence of automation and robotics. They learn about mechanical systems, energy transfer, machine automation and computer control systems. Students use a robust robotics platform to design, build, and program a solution to solve an existing problem.

Power Standards:

- Students will describe the purpose of automation and robotics and its effect on society.
- Students will summarize ways that robots are used in today's world and the impact of their use on society.
- Students will describe positive and negative effects of automation and robotics on humans in terms of safety and economics.
- Students will investigate a career related to automation and robotics and determine the requirements for entering the field.

PLTW Robotics 2**Course Number: 753****Grade Level: 7 and 8****PREREQUISITE: PLTW Robotics 1****LENGTH OF COURSE: 1 Term****CREDITS: .25****COURSE DESCRIPTION: Elective****Take Your Robotics Skills to the Next Level!****Further develop your creativity and problem solving skills to meet the needs of the 21st Century workplace!**

Students enrolled in Robotics will explore a wide range of Robotics topics. Students will explore a variety of mechanisms in search for different input and output effects on robotic functions. Students will be introduced to Robot C to program their robots to perform precise maneuvers and actions in a given problem scenario. **Prerequisite: PLTW Robotics 1.**

Power Standards:

- Students will design, build, wire, and program both open and closed loop systems.
- Students will use motors and sensors appropriately to solve robotic problems.
- Students will troubleshoot a malfunctioning system using a methodical approach.
- Experience the responsibility of a mechanical, electrical and computer engineer through completion of robotic problems.

New

Digital Design 1

Course Number: 762

Grade Level: 7 and 8

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

This class is designed to introduce students to both 2D and 3D digital design concepts and applications. Students will learn to create 2D projects in Adobe Illustrator, and Photo Shop, as well as 3D projects in applications such as Sketchup. Students will then learn to output their designs to 3D printers, as well as 2D color laser printers.

New

Digital Design 2

Course Number: 763

Grade Level: 7 and 8

LENGTH OF COURSE: 1 Term

CREDITS: .25

COURSE DESCRIPTION: Elective

This class continues to build on students' knowledge of 2D and 3D digital design concepts they have gained in Digital Design I. Students will create more advanced 2D and 3D projects. In addition to 3D and color laser printing, students will also have an opportunity to design and create a T-Shirt.