

Madison Consolidated Junior High School Course Curriculum Guide 2020-2021

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General Information

The information contained in this pamphlet was compiled by the Madison Consolidated Junior High School in cooperation with the administration and all departments within the school. This information is made available to all students during second semester of each school year to assist them with academic planning. Students and parents should note the course recommendations. The recommendations inform the student of the requirements that should be completed before registering for the course. Students and parents should also note the prerequisites that exist for high school credit classes that are taken at MJHS. The selection and request of courses is the responsibility of the student and their parent/guardian. School counselors are available to guide students with their course selections. Course fees are not set until the start of the school year and fees are subject to change due to course selections.

Important Terms

“High school diploma” means a certificate of graduation issued by the governing body of a school corporation certifying that the student has satisfied the minimum requirements for graduation from a high school of the school corporation. **Specifically labeled 7th and 8th Grade classes fulfill MCHS Core 40 graduation requirements.**

“Credit” will mean the satisfactory completion of a course(s) that an Indiana Department of Education approved course, follows Indiana academic standards, and meets the specified instructional minutes per class per day. Credit is awarded when a passing grade is achieved in the 18 weeks or 36 weeks course. Madison Consolidated High School requires a total of 40 earned credits for the Core 40 Diploma, and 47 earned credits for the Core 40 Diploma with Academic Honors and Core 40 Diploma with Technical Honors. **Specifically labeled classes are available for high school credit.**

The following conditions shall apply to all courses taken for high school credit at MJHS

- The courses taken at the junior high will be the equivalent to the existing high school courses, covering the same academic standards and be taught by a highly qualified teacher.
- Grades and credits for the course must be included on the student’s transcript and factored into the high school cumulative GPA.
- NCAA eligibility rules provide that high school courses taken in Grade 8 must appear on the high school transcript with a grade and a credit to satisfy core curriculum requirements for college eligibility.
- Students taking the following high school courses at the junior high level must pass at 80% proficiency or the course will be taken again at the high school level: Spanish I, Algebra I, Honors Geometry, Integrated Chemistry-Physics, Introduction to 2D Art, Introduction to 3D Art, and Health.

“Core” - Courses in Math, English Language Arts, Science, Social Studies

“Rotation” or Elective/Specials - Courses students may take in order to develop a skill in a specific area of interest.

“Enrichment” - Courses built to fine tune skills, complete in depth student choice projects, and service learning.

“Semesters” - 18 weeks or half the school year

“Prerequisites” - Conditions that should be met before the class can be taken.

Diploma Requirements

The completion of the Indiana Core 40 Diploma is the minimum Indiana graduation requirement. The following pages describe the requirements for Core 40, Core 40 with Academic Honors, and Core 40 with Technical Honors. Indiana’s Core 40 curriculum provides the academic foundation all students need to succeed in college and the workforce. To earn an Indiana High School Diploma, students in the graduating classes of 2019- 2022 must meet the course and credit requirements as well as pass the Graduation Qualifying Exam / qualify for a GQE waiver; OR complete the Graduation Pathways. Please see tables below.

If the decision is made to opt-out of Core 40, the student is required to complete the course and credit requirements for a General Diploma and the career/academic sequence the student will pursue is determined.

NOTE: According to SSACI (State Student Assistance Commission of Indiana), only students who receive a Core 40 with Academic Honors or a Core 40 with Technical Honors Diploma will receive 100 percent of the financial aid in which they are eligible. Students with a Core 40 or General Diploma will only receive 80 percent of the financial aid for which they are eligible and may not be able to apply aid money toward remediation courses.

Graduation Course and Credit Requirements (Class of 2016 & Beyond)

English/ Language Arts	8 credits
	Including a balance of literature, composition and speech
Mathematics	6 credits (in grades 9-12)
	2 credits: Algebra I 2 credits: Geometry 2 credits: Algebra II
	<small>Students must take a math or quantitative reasoning course each year in high school.</small>
Science	6 credits
	2 credits: Biology I 2 credits: Chemistry I or Physics I or Integrated Chemistry-Physics 2 credits: any Core 40 science course
Social Studies	6 credits
	2 credits: U.S. History 1 credit: U.S. Government 1 credit: Economics 2 credits: World History/Civilization or Geography/History of the World
Directed Electives	5 credits
	World Languages Fine Arts: (Art, Band, Choir, Theatre) Career/Technical Area of Choice
Physical Education	2 credits
Health and Wellness	1 credit
Preparing for College & Careers	1 credit
Electives*	Choose any courses from which the prerequisites have been met. <small>(Career and Career Pathway courses recommended)</small>



For the **Core 40 with Academic Honors** diploma, students must:

- Complete all requirements for Core 40. (See next page)
- Earn 2 additional Core 40 math credits. (8 credits total)
- Earn 6-8 Core 40 world language credits.
(6 credits in one language or 4 credits each in two languages)
- Earn 2 Core 40 fine arts credits. (Art, Band, Choir, or Theatre)
- Earn a grade of a “C” or better in courses that will count toward the diploma.
- Have a grade point average of a “B” or better.
- Complete one of the following:
 - A. Earn 4 credits in 2 or more AP courses and take corresponding AP exams
 - B. Earn 6 verifiable transcribed college credits in dual credit courses from the approved dual credit list.
 - C. Earn two of the following:
 - A minimum of 3 verifiable transcribed college credits from the approved dual credit list,
 - 2 credits in AP courses and corresponding AP exams,
 - 2 credits in IB standard level courses and corresponding IB exams
 - D. Earn a combined score of 1260 or higher on the SAT critical reading, mathematics and writing sections and a minimum score of 560 on M and 590ERW.
 - E. Earn an ACT composite score of 26 or higher and complete written section

with Technical Honors
(MCHS = 47 Credits)

For the **Core 40 with Technical Honors** diploma, students must:

- Complete all requirements for Core 40. (See above)
- Earn 6 credits in the college and career preparation courses in a state-approved College & Career Pathway and one of the following:
 - Pathway designated industry-based certification or credential, or
 - Pathway dual credits from the lists of priority courses resulting in 6 transcribed college credits
- Earn a grade of “C” or better in courses that will count toward the diploma.
- Have a grade point average of a “B” or better.
- Complete one of the following:
 - A. Any one of the options (A-E) of the Core 40 w/ Academic Honors
 - B. Score at or above the following levels on WorkKeys: Reading for Information - Level 6; Applied Mathematics - Level 6; Locating Information - Level 5
 - C. Earn the following minimum scores) on Accuplacer: Writing 80, Reading 90, Math 75.
 - D. Earn the following minimum score(s) on the Compass; Algebra 66, Writing 70, Reading 80

Graduation Requirements	Graduation Pathway Options
1) High School Diploma	Meet the statutorily defined diploma credit and curricular requirements.
2) Learn and Demonstrate Employability Skills¹ (Students must complete <u>at least one</u> of the following.)	Learn employability skills standards through locally developed programs. Employability skills are demonstrated by <u>one</u> the following: <ul style="list-style-type: none"> ● Project-Based Learning Experience; OR ● Service-Based Learning Experience; OR ● Work-Based Learning Experience.²
3) Postsecondary-Ready Competencies³ (Students must complete <u>at least one</u> of the following.)	<ul style="list-style-type: none"> ● Honors Diploma: Fulfill all requirements of either the Academic or Technical Honors diploma; OR ● ACT: College-ready benchmarks; OR ● SAT: College-ready benchmarks; OR ● ASVAB: Earn at least a minimum AFQT score to qualify for placement into one of the branches of the US military; OR ● State- and Industry-recognized Credential or Certification; OR ● State-, Federal-, or Industry-recognized Apprenticeship; OR ● Career-Technical Education Concentrator: Must earn a C <u>average</u> or higher in at least 6 high school credits in a career sequence; OR ● AP/IB/Dual Credit/Cambridge International courses or CLEP Exams: Must earn a C <u>average</u> or higher in at least three courses; OR ● Locally created pathway that meets the framework from and earns the approval of the State Board of Education.

5th Grade Course Offerings

The following pages outline the course offerings by department. The student should pay close attention to course prerequisites, strong recommendations, and credits offered. The courses offered may be changed due to the balancing of class sizes or insufficient student enrollment or faculty changes. The administration will attempt to keep changes to student schedules at a minimum due to these factors.

5th Grade Course Description

Math, Reading, and Writing make up the academic core block of the 5th grade year. Science and Social studies standards will be embedded within the core focus when possible. The 2020-2021 rotation block will consist of 8 locally focused elective courses that will rotate throughout the year. The enrichment block is built into the end of the day for 5th graders and provides students the opportunity to fine tune needed skills, complete in depth student choice projects, and service learning.

Subjects and Areas of Focus

Math

Focus of study covers 5 strands: Number Sense; Computation; Algebraic Thinking; Geometry; Measurement; and Data Analysis and Statistics. Madison Consolidated Schools has adopted the Everyday Mathematics program developed by the University of Chicago School Mathematics Project and published by McGraw-Hill Education.

Reading

Students read a wide range of fiction, nonfiction, classic, and contemporary works, to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace. Students apply a wide range of strategies to comprehend, interpret, evaluate, and appreciate texts. They read a wide range of literature in many genres from a variety of time periods and cultures from around the world to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience. They draw on their prior experience, their interactions with other readers and writers, and reading skills that they have developed and refined.

Writing

Students employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes. Students apply knowledge of language structure, language conventions, media techniques, figurative language, and genre to create, critique, and discuss writing. Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources to communicate their discoveries in ways that suit their purpose and audience.

Social Studies

Focus of study covers the United States, focusing on the influence of physical and cultural characteristics on national origins, growth, and development up to 1800 through a formal exploration of United States history, geography, economics, government, current events, and cultural heritage.

Science

5th graders will be exposed to the Indiana Academic standards consisting of Physical Science (mass/states of matter), Earth and Space Science (solar system, Sun/Earth Moon), Life Science (plants, animals, decomposers, producers, consumers, decomposers, predator/prey), and Engineering (design process).

Rotations (Specials or Electives)

Art	Computer Science	Social Emotional Learning	Learning Commons
Music	Physical Education	STEM	Production

6th, 7th, and 8th Grade Course Offerings

The following pages outline the course offerings by department. The student should pay close attention to course prerequisites, strong recommendations, and credits offered. The courses offered may be changed due to the balancing of class sizes or insufficient student enrollment or faculty changes. The administration will attempt to keep changes to student schedules at a minimum due to these factors.

Language Arts

LANGUAGE ARTS - GRADE 6

Language Arts, Grade 6, a course based on the Indiana Common Core Standards for English/Language Arts, is integrated instruction emphasizing reading, writing, speaking and listening in interest- and age-appropriate content. Students apply skills learned in earlier grades to make sense of longer, more challenging text. They interpret figurative language and words with multiple meanings. They examine an author's choice of words and reasonableness of statements in nonfiction works. They critique the believability of characters and plots in fiction works. They begin to read autobiographies. They read and respond to fiction selections and nonfiction selections. Students self-select books of interest and read independently for enjoyment. Students apply language skills and strategies they learned in earlier grades. Using oral discussion, reading, writing, art, music, movement, and drama, students respond to fiction, nonfiction, and informational selections or reality-based experiences, multimedia presentations, and classroom or group experiences. They apply their research skills by writing or delivering reports that demonstrate the distinction between their own ideas and the ideas of others. They use simple, compound, and complex sentences to express their thoughts. They deliver oral presentations on problems and solutions and show evidence to support their views. Students also listen to literature read aloud to them and write independently for enjoyment.

LANGUAGE ARTS - GRADE 7

Language Arts, Grade 7, a course based on Indiana's College and Career Readiness Standards, is integrated instruction emphasizing reading, writing, speaking and listening in interest and age-appropriate content. Students develop advanced skills and strategies in reading. They understand comparisons, such as analogies and metaphors, and they begin to use their knowledge of roots and word parts to understand science, social studies, and mathematics vocabulary. They begin to read reviews, as well as critiques of both informational and literary writing. They read and respond to fiction selections, such as classic and contemporary literature, historical fiction, fantasy or science fiction, mystery or adventure, folklore or mythology, poetry, short stories, and dramas, and nonfiction selections, such as subject area books, biographies or autobiographies, magazines and newspapers, various reference or technical materials, and online information. Students respond to fiction, nonfiction, and informational selections or reality-based experiences, multimedia presentations, and classroom or group experiences. They write or deliver longer research reports that take a position on a topic, and they support their positions by citing a variety of sources.

HONORS LANGUAGE ARTS - GRADE 7

Honors English is a course designed for high-achieving 7th grade students demonstrating advanced English language arts skills, who will receive instruction leading to subsequent Honors English Language Arts courses. The class will cover all 7th essential knowledge. Emphasis is placed on developing critical and creative thinking and analysis of the style of selected authors and works through required reading, discussions, essays, and exams. **This class is academically rigorous and moves at a faster pace.**

Students must have above average motivational skills to do well in this class.

- Maintain grades of A or B in Grade 6 Language Arts, Adequate Assessment Scores
- Teacher Recommendation, Summer work will be required

LANGUAGE ARTS - GRADE 8

Language Arts, Grade 8, a course based on Indiana's College and Career Readiness Standards is integrated instruction emphasizing reading, writing, speaking and listening in interest- and age-appropriate content. Students evaluate the logic of informational texts and analyze how literature reflects the backgrounds, attitudes, and beliefs of the authors. They read and respond to fiction selections, such as classic and contemporary literature, historical fiction, fantasy or science fiction, mystery or adventure, folklore or mythology, poetry, short stories, and dramas, and nonfiction selections, such as subject area books, biographies or autobiographies, magazines and newspapers, various reference or technical materials, and online information. Students get ready for the language challenges of high school materials. Using oral discussion, reading, writing, art, music, movement, and drama, students respond to fiction, nonfiction, and informational selections or reality-based experiences, multimedia presentations, and classroom or group experiences. They not only write or deliver research reports but also conduct their own research. They use subordination, coordination, noun phrases and other devices of English language conventions to indicate clearly the relationship between ideas. They deliver a variety of types of presentations and effectively respond to questions and concerns from the audience. Students also listen to literature read aloud to them and write independently for enjoyment.

HONORS LANGUAGE ARTS - GRADE 8

Honors English is a course designed for high-achieving 8th grade students demonstrating advanced English language arts skills, who will receive instruction leading to subsequent Honors English Language Arts courses. The class will cover all 8th essential knowledge. Emphasis is placed on developing critical and creative thinking and analysis of the style of selected authors and works through required reading, discussions, essays, and exams. **This class is academically rigorous and moves at a faster pace. Students must have above average motivational skills to do well in this class.**

- Maintain grades of A or B in Grade 7 Language Arts, Adequate Assessment Scores
- Teacher Recommendation, Summer work will be required

LANGUAGE ARTS LAB - GRADE 6, 7, & 8

Language Arts Lab is supplemental to language arts to provide students with individualized and/or small group instruction designed to support success in completing language arts studies aligned with Indiana's Academic Standards for English/Language Arts in grades 6-8.

- For students who need additional support in all the language arts areas (reading, writing, speaking and listening).
- May also be used for students who need Tier 2 and 3 interventions in English/Language Arts.

LANGUAGE ARTS: WORLD LANGUAGES

EXPLORING WORLD LANGUAGES - GRADE 7 & 8

Exploring World Languages may be offered to students in kindergarten through grade 8 to provide a sampling of world languages and cultures for students who have not had a prior opportunity for world language learning. Typical objectives include development of basic linguistic and cultural awareness, learning basic words and phrases in world languages, development of listening skills, and development of an interest in world languages for future study. Exploring World Languages is not a sequential program and does not lead to the development of communicative proficiency in a world language. Beginning in grade 6, along with the current academic standards, the Science/Technical Studies Content Area Literacy Standards are incorporated in the teaching of this subject with the expectation of a continuum of reading and writing skills development.

SPANISH I - GRADE 8 (High School Credit)

Spanish I enables students to discuss the reasons for learning Spanish and to develop an understanding of Spanish-speaking people and their culture. This course introduces the Spanish language and Hispanic culture to students

and enables students to apply effective strategies for learning Spanish. Emphasis is placed on developing the skills of listening, speaking, reading, and writing within a cultural context. Students will be able to respond to and give oral directions and commands, make and answer requests, and ask and answer simple questions. They will be able to understand the words and phrases in situational contexts, read short texts on simple topics, and write appropriate responses within situational contexts. As a result of this course, students will have basic vocabulary and structures for minimal communication. They will also have a beginning Hispanic cultural literacy, including etiquette and nonverbal communication, celebrations, current events, history, art, literature, and music. **(2 credit, 2 semester course)**
Grades and credits for this course will be included on the student's high school transcript and will be factored into their cumulative GPA.

- Maintain grades of A or B in Grade 7 Language Arts, Adequate Assessment Scores
- Teacher Recommendation, Summer work will be required
- Counts as a Directed Elective or Elective for all diplomas
- Fulfills a World Language requirement for the Core 40 with Academic Honors Diploma
- Must pass at 80% proficiency or course must be retaken at high school level

MATHEMATICS

MATH - GRADE 6

Mathematics – Grade 6 begins the transition from the heavy emphasis on number and operations at the elementary school level towards a more formalized understanding of mathematics that occurs at the high school level. Students connect previous knowledge of multiplication, division, and fractions to ratios and proportional relationships; extend previous understanding of the number system and operations to fractions and negative numbers; apply and extend previous understandings of the number line to plot coordinate pairs on a Cartesian plane; formalize algebraic thinking into algebraic expressions and equations; apply their previous knowledge of geometry in real-world mathematics situations; and begin to develop an understanding of statistical variability and distributions. As in all mathematics courses, the Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

MATH - GRADE 7

Mathematics in grade 7 continues the trajectory towards a more formalized understanding of mathematics that occurs at the high school level that began in Grade 6. Students extend ratio reasoning to analyze proportional relationships and solve real-world and mathematical problems; extend previous understanding of the number system and operations to perform operations using all rational numbers; apply properties of operations in the context of algebraic expressions and equations; draw, construct, describe, and analyze geometrical figures and the relationships between them; apply understandings of statistical variability and distributions by using random sampling, making inferences, and investigating chance processes and probability models. As in all mathematics courses, the Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

HONORS MATH - GRADE 7

Pre Algebra continues the trajectory towards a more formalized understanding of mathematics that occurs at the high school level that was begun in Grade 6. Students extend their understanding of rational numbers to develop an understanding of irrational numbers; connect ratio and proportional reasoning to lines and linear functions; define, evaluate, compare, and model with functions; build understanding of congruence and similarity; understand and apply the Pythagorean Theorem; and extend their understanding of statistics and probability by investigating patterns of association in bivariate data. As in all mathematics courses, the Mathematical Practice Standards apply throughout each course and, together with the content standards,

prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. **This class is academically rigorous and moves at a faster pace. Students must have above average motivational skills to do well in this class.**

Successful completion of the class prepares the student for Algebra 1 in Grade 8

- Maintains grade of A or B in Grade 6 Mathematics, Adequate Assessment Scores
- Teacher recommendation, Summer work will be required

MATH - GRADE 8

Mathematics – Grade 8 continues the trajectory towards a more formalized understanding of mathematics that occurs at the high school level that was begun in Grades 6 and 7. Students extend their understanding of rational numbers to develop an understanding of irrational numbers; connect ratio and proportional reasoning to lines and linear functions; define, evaluate, compare, and model with functions; build understanding of congruence and similarity; understand and apply the Pythagorean Theorem; and extend their understanding of statistics and probability by investigating patterns of association in bivariate data. As in all mathematics courses, the Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

ALGEBRA 1- GRADES 7 & 8 (High School Credit)

Algebra I formalizes and extends the mathematics students learned in the middle grades. Five critical areas comprise Algebra I: Relations and Functions; Linear Equations and Inequalities; Quadratic and Nonlinear Equations; Systems of Equations and Inequalities; and Polynomial Expressions. The critical areas deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. **(Two credit, two semester course) Grades and credits for this course will be included on the student's high school transcript and will be factored into their cumulative GPA.**

- Counts as a Mathematics course for all diplomas
- Fulfills the Algebra I/Integrated Mathematics I requirement for all diplomas
- Students pursuing Core 40, Core 40 with Academics Honors, or Core 40 with Technical Honors diploma should receive credit for Algebra I by the end of Grade 9

Prerequisite for 7th grade Algebra:

- Grade of A in Grade 6 Mathematics, Adequate Assessment Scores, Entrance Exam
- Teacher Recommendation, Summer work will be required
- Must pass at 80% proficiency or the course will be taken again during 8th grade year with administration approval, otherwise the course will be repeated at high school level.

Prerequisite for 8th grade Algebra:

- Grade of A or B in Grade 7 Mathematics, Adequate Assessment Scores
- Teacher Recommendation, Summer work will be required
- Must pass at 80% proficiency or the course will be taken again at the high school level

HONORS GEOMETRY - GRADE 8 (High School Credit)

Although the content of this course will typically be that of a Geometry course, emphasis will be placed on the rigorous preparation for advanced mathematics. Exercises more challenging than those typically found in Geometry will be emphasized, including formal and indirect proofs. Term projects and/or class presentations by students will be expected. Meets Academic Honors Diploma and Core 40 requirements. Prerequisite: B- or better in Algebra I or teacher recommendation. **(Two credit, two semester course) Grades and credits for this course will be included on the**

student's high school transcript and will be factored into their cumulative GPA. This is a weighted course. Meets Academic Honors and Core 40 Diploma requirements.

Prerequisite:

- Must have taken Algebra 1 in 7th grade, Adequate Assessment Scores
- Teacher Recommendation, Summer will be work required
- Counts as a Mathematics course for all diplomas 258 Indiana Department of Education High School Course Titles and Descriptions
- Fulfills the Geometry/Integrated Mathematics II requirement for the Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Must pass at 80% proficiency or the course will be taken again at the high school level

MATHEMATICS LAB - GRADE 6, 7, & 8

Mathematics Lab provides students with individualized instruction designed to support success in completing mathematics content aligned with Indiana's Academic Standards for Mathematics. Mathematics lab is to be taken in conjunction with the study of mathematics, and the content of Mathematics lab should be tightly aligned to the corresponding content being studied. Mathematics lab should relate and reinforce mathematics skills students have learned previously, fill in gaps and misconceptions of previous content, and present the current content in concrete and hands-on methods.

- For students who need additional support in mathematics.
- May also be used for students who need Tier 2 and 3 interventions in mathematics

SCIENCE

SCIENCE- GRADE 6

Students in sixth grade understand that matter is composed of different states with different properties and that energy has different forms with unique characteristics. They understand the relationships between celestial bodies and the force that keeps them in regular and predictable motion. They describe the complex relationships that exist between organisms in all ecosystems and they understand that the major source of energy for all ecosystems is the sun.

SCIENCE - GRADE 7

Students in seventh grade understand that energy cannot be created or destroyed, but only changed from one form into another or transferred from place to place. They understand forces as they apply to nature and machines. They describe how earth processes have shaped the topography of the earth and have made it possible to measure geological time. They understand the cellular structure of living organisms, from one celled to multicellular.

HONORS SCIENCE - GRADE 7

Students in seventh grade Honors Science will be challenged with understanding multiple curriculum in order to be prepared for a high school science course in 8th grade. This course is designed to incorporate 7th & 8th grade standards. This course should be viewed as a 'Pre-High School Science' course. As part of the 7th grade material, students will understand that energy cannot be created or destroyed, but only changed from one form into another or transferred from place to place. They understand forces as they apply to nature and machines. They describe how earth processes have shaped the topography of the earth and have made it possible to measure geological time. They understand the cellular structure of living organisms, from one celled to multicellular. As part of the 8th grade material students will understand how atomic structure determines chemical properties and how atoms and molecules interact. They will also understand the predictability of characteristics being passed from parent to offspring while studying the basics of genetics. Additional emphasis placed upon decision-making and problem-solving activities that include the following: identifying problems, issues and questions; information gathering; hypothesizing, connecting content to

real-world applications; and evaluating alternative solutions and actions. This class is academically rigorous and moves at a faster pace. Students must have above average motivational skills to do well in this class.

Strongly Recommend:

- An A or B in 6th Grade Science, Adequate Assessment Scores
- Teacher Recommendation, Summer work will be required

SCIENCE - GRADE 8

Students in eighth grade understand how atomic structure determines chemical properties and how atoms and molecules interaction. They explain how the water cycle and air movement are caused by differential heating of air, land, and water and how these affect weather and climate. They understand that natural and human events change the environmental conditions on the earth. They understand the predictability of characteristics being passed from parent to offspring and how a particular environment selects for traits that increase survival and reproduction by individuals bearing those traits.

INTEGRATED CHEMISTRY-PHYSICS - GRADE 8 (High School Credit)

Integrated Chemistry-Physics is a course focused on the following core topics: constant velocity; uniform acceleration; Newton's Laws of motion (one dimension); energy; particle theory of matter; describing substances; representing chemical change; electricity and magnetism; waves; nuclear energy. Instruction should focus on developing student understanding that scientific knowledge is gained from observation of natural phenomena and experimentation by designing and conducting investigations guided by theory and by evaluating and communicating the results of those investigations according to accepted procedures.

Grades and credits for this course will be included on the student's high school transcript and will be factored into their cumulative GPA. (2 credit, 2 semester course)

Prerequisite:

- Recommended Grade A or B in 7th Honors Science, Adequate Assessment Scores
- Teacher Recommendation, Summer work will be required
- Completion of Algebra I or may be taken concurrently with ICP
- Fulfills the life science requirement for the General diploma, Fulfills Biology credit for Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas.
- Must pass at 80% proficiency or the course will be taken again at the high school level

SOCIAL STUDIES

SOCIAL STUDIES- GRADE 6

Students in sixth grade compare the history, geography, government, economic systems, current issues, and cultures of the Western World with an emphasis on: (1) Europe, (2) North America, (3) South America, (4) Central America, (5) and the Caribbean region. Instructional programs for sixth grade students include experiences which foster the passage from concrete examples to abstract reasoning, concepts, ideas, and generalizations. Opportunities to develop skills include the use of a variety of resources and activities. Students should acquire positive attitudes regarding active participation, cooperation, responsibility, open-mindedness, and respect for others.

SOCIAL STUDIES - GRADE 7

Students in seventh grade explore the history, geography, government, economic systems, current issues, and cultures of the Eastern World with an emphasis on: (1) Asia, (2) Africa, (3) the Middle East, (4) the Pacific Islands, (5) Australia, and (6) New Zealand. Learning experiences for seventh grade students should help them to make the transition from concrete information to abstract ideas, concepts, and generalizations. In-depth studies provide greater understanding of environmental influences on economic, cultural, and political institutions. Opportunities to

develop thinking and research skills include reading and interpreting maps, graphs, and charts. Decision-making and problem-solving activities should include the following: (1) identifying problems, issues and questions; (2) information gathering; (3) hypothesizing; and (4) evaluating alternative solutions and actions.

HONORS SOCIAL STUDIES - GRADE 7

Students in seventh grade Honors Social Studies explore the history, geography, government, economic systems, current issues, and cultures of the Eastern World with an emphasis on: (1) Asia, (2) Africa, (3) the Middle East, (4) the Pacific Islands, (5) Australia, and (6) New Zealand. Learning experiences for seventh grade students should help them to make the transition from concrete information to abstract ideas, concepts, and generalizations. In-depth studies provide greater understanding of environmental influences on economic, cultural, and political institutions. Opportunities to develop thinking and research skills include reading and interpreting maps, graphs, and charts. Decision-making and problem-solving activities should include the following: (1) identifying problems, issues and questions; (2) information gathering; (3) hypothesizing; and (4) evaluating alternative solutions and actions. Students in Honors Social Studies will spend more time working with primary sources. Honors Social Studies students should also expect higher expectations in the quality and depth of their work and writing. **This class is academically rigorous and moves at a faster pace. Students must have above average motivational skills to do well in this class.**

Strongly Recommend:

- An A or B in 6th Grade Social Studies, Adequate Assessment Scores
- Teacher Recommendation, Summer work will be required

SOCIAL STUDIES - GRADE 8

Eighth grade United States History emphasizes the interaction of historical events and geographic, social, and economic influences on national development prior to the twentieth century. Special attention is given to (1) Native American cultures and the pre-Columbian period; (2) colonial, revolutionary, and constitutional issues; (3) early national formation; (4) sectional divisions leading to the Civil War; (5) Reconstruction; (6) industrialization; (7) urbanization; and (8) immigration. In this course, students examine major themes, issues, events, movements, and figures in United States history prior to 1900 and explore relationship to modern issues and current events, for example: (1) anti-war movements in different periods in United States history, (2) the influence of inventions and economic innovations, and (3) Indiana's concurrent growth and development. Eighth grade students need to experience a variety of teaching and learning strategies. Students are provided practice in thinking and research skills by learning to use the media center, primary documents, and community resources to identify, evaluate and use appropriate data and reference information. This course also helps student to develop an appreciation of historical preservation. Finally, students should demonstrate, through their studies, a commitment to the rights and responsibilities of citizenship in a democratic society.

HONORS SOCIAL STUDIES - GRADE 8

Eighth grade United States History emphasizes the interaction of historical events and geographic, social, and economic influences on national development prior to the twentieth century. Special attention is given to (1) Native American cultures and the pre-Columbian period; (2) colonial, revolutionary, and constitutional issues; (3) early national formation; (4) sectional divisions leading to the Civil War; (5) Reconstruction; (6) industrialization; (7) urbanization; and (8) immigration. In this course, students examine major themes, issues, events, movements, and figures in United States history prior to 1900 and explore relationship to modern issues and current events, for example: (1) anti-war movements in different periods in United States history, (2) the influence of inventions and economic innovations, and (3) Indiana's concurrent growth and development. Eighth grade students need to experience a variety of teaching and learning strategies. Students are provided practice in thinking and research skills by learning to use the media center, primary documents, and community resources to identify, evaluate and use appropriate data and reference information. This course also helps student to develop an appreciation of historical preservation. Finally, students should demonstrate, through their studies, a commitment to the rights and responsibilities of citizenship in a democratic society.

Students in Honors Social Studies will spend more time working with primary sources. Honors Social Studies students should also expect higher expectations in the quality and depth of their work and writing. **This class is academically rigorous and moves at a faster pace. Students must have above average motivational skills to do well in this class.**

Strongly Recommend:

- An A or B in 7th Grade Social Studies, Adequate Assessment Scores
- Teacher Recommendation, Summer work will be required

Independent Learning Academy- Multiplicity Place

Multiplicity PLACE is a personalized learning environment striving to create students who strive to be lifelong, self-motivated learners. It combines online learning experiences, direct teacher instruction, collaborative peer interactions, real-world applications, and high interest subject matter to meet the needs of each individual. Students will be highly encouraged to become independent self-motivated learners. As students show their capability of becoming independent they will be moved in those directions at the teachers discretion. Students are placed within the programs courses most closely related to each student's needs, skills, and based on teacher recommendations. Students are selected through an application process or can be directly admitted if they have a sibling already enrolled in the program. **This class is academically rigorous, but will move at the pace of the student. Students will be need to want to be independent and motivated learners.**

- Must be accepted into the program through an application process.
- Teacher recommendation

FINE ARTS

ART - GRADE 6

Middle Level Visual Art is based on the Indiana Standards for Visual Art. Students in the middle level program build on the sequential learning experiences of the elementary program that encompasses art history, criticism, aesthetics, and production. Through self-reflection, including dialogue, reading, and writing students analyze each component of their arts education as well as their own personal growth. Throughout the program, students engage in various forms of communication, utilizing a rich vocabulary and a variety of technological resources. Students continue to utilize their art knowledge and skills to make connections across the curriculum, study career options and identify skills required for each career, and use arts community resources, identifying ways to utilize and support the arts community.

ART - GRADE 7

Middle Level Visual Art is based on the Indiana Standards for Visual Art. Students in the middle level program build on the sequential learning experiences of the elementary program that encompasses art history, criticism, aesthetics, and production. Through self-reflection, including dialogue, reading, and writing students analyze each component of their arts education as well as their own personal growth. Throughout the program, students engage in various forms of communication, utilizing a rich vocabulary and a variety of technological resources. Students continue to utilize their art knowledge and skills to make connections across the curriculum, study career options and identify skills required for each career, and use arts community resources, identifying ways to utilize and support the arts community.

INTRODUCTION TO 2D ART - GRADE 8 (High School Credit)

Introduction to Two-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students taking this course engage in sequential learning experiences that encompass art history, art criticism, aesthetics, production, and integrated studies and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create two-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and

incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources. **(1 semester, 1 credit course) Grades and credits for this course will be included on the student's high school transcript and will be factored into their cumulative GPA.**

Prerequisite:

- Completion of Art 7 with a grade of B or better
- A or B in 7th grade Language Arts
- Teacher Recommendation
 - Fulfills requirement for 1 of 2 Fine Arts credits for Core 40 with Academic Honors diploma
 - Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Must pass at 80% proficiency or the course will be taken again at the high school level

INTRODUCTION TO 3D ART - GRADE 8 (High School Credit)

Introduction to Three-Dimensional Art is a course based on the Indiana Academic Standards for Visual Art. Students taking this course engage in sequential learning experiences that encompass art history, art criticism, aesthetics, production, and integrated studies and lead to the creation of portfolio quality works. Students explore historical and cultural background and connections; analyze, interpret, theorize, and make informed judgments about artwork and the nature of art; create three-dimensional works of art, reflect upon the outcomes, and revise their work; relate art to other disciplines and discover opportunities for integration; and incorporate literacy and presentational skills. They identify ways to utilize and support art museums, galleries, studios, and community resources. **(1 semester, 1 credit course) Grades and credits for this course will be included on the student's high school transcript and will be factored into their cumulative GPA.**

Prerequisite: Introduction to 2D Art

- Fulfills requirement for 1 of 2 Fine Arts credits for Core 40 with Academic Honors diploma
- Counts as a Directed Elective or Elective for the General, Core 40, Core 40 with Academic Honors and Core 40 with Technical Honors diplomas
- Must pass at 80% proficiency or the course will be taken again at the high school level

EXPLORING MUSIC, MIDDLE LEVEL - GRADE 6, 7, & 8

Exploring Music, Middle Level is based on the Indiana Academic Standards for Music. Students are provided with activities that build on kindergarten through grade 6 musical knowledge and skills. Instruction is designed to enable students to perform and create music, respond to music, and integrate music study into other subject areas. Activities and experiences in music are designed to develop students' appreciation of music as an art form, to build the foundation for music literacy, and to understand music as it relates to history, culture, and the community. Along with the current academic standards, the Science/Technical Studies Content Area Literacy Standards are incorporated in the teaching of this subject with the expectation of a continuum of reading and writing skills development.

BEGINNING BAND- GRADES 6, 7, & 8

Beginning Band is based on the Indiana Academic Standards for Instrumental Music and provides beginning instruction in any of the following areas: woodwinds, brass, and percussion. Ensemble and solo activities are designed for students to develop elements of musicianship including tone production, technical skills, intonation, and music reading skills. Experiences include improvising and playing by ear. Students also participate in performance opportunities outside of the school day that support and extend the learning in the classroom. This class is intended for students who plan on playing an instrument for their first year. Open to all grades. Students are required to participate in live performances, outside the school day, that support and extend learning in the classroom.

*Students are required to provide their own instruments. MJHS uses a company called Conrad Music Service that provides the opportunity to rent and buy student instruments. This company comes to the school weekly for minor repairs.

CONCERT BAND- GRADE 7

Intermediate Band is based on the Indiana Academic Standards for Instrumental Music and provides students the opportunity to apply knowledge and skills learned in Beginning Band by continuing to play an instrument. This class provides instruction in any of the following areas: woodwinds, brass, and percussion. Ensemble and solo activities are designed for students to develop basic elements of musicianship including tone production, technical skills, and intonation. Activities include improvising; composing; reading, notating, and sight-reading music; listening; analyzing; evaluating; and experiencing historically significant styles of literature. Students are given opportunities to participate in performances outside of the school day that support and extend the learning in the classroom. The prerequisite for this class is Beginning Band. Students are required to participate in live performances, outside the school day, that support and extend learning in the classroom.

*Students are required to provide their own instruments. MJHS uses a company called Conrad Music Service that provides the opportunity to rent and buy student instruments. This company comes to the school weekly for minor repairs.

FESTIVAL BAND- GRADE 8

Advanced Band is based on the Indiana Academic Standards for Instrumental Music and provides students the opportunity to apply knowledge and skills learned in Beginning/Intermediate Band by continuing to play an instrument. This class provides instruction in any of the following areas: woodwinds, brass, and percussion. Ensemble and solo activities are designed for students to develop basic elements of musicianship including tone production, technical skills, and intonation. Activities include improvising; composing; reading, notating, and sight-reading music; listening; analyzing; evaluating; and experiencing historically significant styles of literature. Students are given opportunities to participate in performances outside of the school day that support and extend the learning in the classroom. The prerequisite for this class is Intermediate Band or by recommendation. Students are required to participate in live performances, outside the school day, that support and extend learning in the classroom.

- **MJHS uses a company called Conrad Music Service that provides the opportunity to rent and buy student instruments. This company comes to the school weekly for minor repairs.**
- **Students provide own instrument and will provide band instructor proof of instrument before the end of the previous school year.**

CHOIR- GRADES 6, 7, & 8

Vocal Music is based on the Indiana Academic Standards for Choral Music and provides students the opportunity to apply knowledge and skills learned in the elementary music curriculum by participating in choral ensemble classes. Ensemble classes provide group and solo activities and are designed to develop students' musicianship including vocal production, technical skills, and intonation. Activities and experiences include improvising and composing music; listening to, analyzing, and evaluating music; and performing vocal literature of various styles, historical periods, and world cultures. Students also participate in performance opportunities outside of the school day that support and extend the learning in the classroom. Students are required to participate in live performances, outside the school day, that support and extend learning in the classroom.

CREATIVE DRAMATICS - GRADE 6

This course enables students to use movement, voice, and language effectively to create characterizations in a wide variety of historical and cultural contexts. Improvisation enables them to demonstrate an understanding of the concepts of space, time, and mannerisms in character portrayals. Additionally, students write scripts based on personal experience, imagination, history, and literature. Students increase their awareness of vocational opportunities in the theatre arts and learn to develop criteria for the evaluation of recorded and live performances.

Students are asked to participate in a dress rehearsal(s) and a live performance(s), outside of the school day, that support and extend the learning in the classroom.

CREATIVE DRAMATICS - GRADES 7 & 8

Creative Dramatics, Middle Level, based on the Indiana Academic Standards for Theatre, enables students to use movement, voice, and language effectively to create characterizations in a wide variety of historical and cultural contexts. Improvisation enables them to demonstrate an understanding of the concepts of space, time, and mannerisms

in character portrayals. Additionally, students write scripts based on personal experience, imagination, history, and literature. Students increase their awareness of vocational opportunities in the theatre arts and learn to develop criteria for the evaluation of recorded and live performances. Along with the current academic standards, the Science/Technical Studies Content Area Literacy Standards are incorporated in the teaching of this subject with the expectation of a continuum of reading and writing skills development. Students are asked to participate in a dress rehearsal(s) and a live performance(s), outside of the school day, that support and extend the learning in the classroom.

PHYSICAL EDUCATION and HEALTH

HEALTH - GRADE 8 (High School Credit)

Health & Wellness, a course based on Indiana's Academic Standards for Health & Wellness, provides the basis to help students adopt and maintain healthy behaviors. Health education should contribute directly to a student's ability to successfully practice behaviors that protect and promote health and avoid or reduce health risks. Through a variety of instructional strategies, students practice the development of functional health information (essential concepts); determine personal values that support health behaviors; develop group norms that value a healthy lifestyle; develop the essential skills necessary to adopt, practice, and maintain health-enhancing behaviors. Priority areas include: promoting personal health and wellness, physical activity, healthy eating, promoting safety and preventing unintentional injury and violence, promoting mental and emotional health, a tobacco-free lifestyle and an alcohol- and drug-free lifestyle and promoting human development and family health. This course provides students with the knowledge and skills of health and wellness core concepts, analyzing influences, accessing information, interpersonal communication, decision-making and goal setting skills, health-enhancing behaviors, and health and wellness advocacy skills. This course is designed to assist students in obtaining accurate information, developing lifelong positive attitudes and behaviors, and making wise decisions related to their personal health. Study will include personal and community health; mental, emotional, and social health; injury prevention, safety and CPR; nutritional needs and physical activity; alcohol, tobacco, and other drugs; growth, development, and sexual health. The central themes are the acceptance of personal responsibility for lifelong health, respect for and promotion of the health of others. This course is a High School level course and is based on the Indiana Health Education standards. **(1 credit, 1 semester course) Grades and credits for this course will be included on the student's high school transcript and will be factored into their cumulative GPA.**

- **Fulfills the Health & Wellness requirement for the General, Core 40, Core 40 with Academic Honors, Core 40 with Technical Honors diplomas**
- **Must pass at 80% proficiency or the course will be taken again at the high school level**

HEALTH AND WELLNESS - GRADE 6

Health and Wellness, grade 6 provides for the continued development of attitudes and behaviors related to becoming a health-literate individual as part of a planned, sequential, comprehensive health education curriculum that uses the Indiana Academic Standards for Health and Wellness to support student development of essential health skills within the ten health content areas. In grade six, students focus on continued skill development and skill applications that assist in building competencies for health literacy. These may include decision-making skills, stress management skills, communication skills, social skills, and assertiveness skills. Developmentally appropriate concepts of personal and community health; safety and injury prevention; nutrition and physical activity, mental health; alcohol, tobacco and other drug use; and family life and human sexuality are areas used for skill development. The adolescent student has instructional opportunities to investigate how health behaviors impact health, well-being, and disease prevention and to accept personal responsibility for health-related decisions. Along with the current academic standards for this subject, the Science/Technical Studies Content Area Literacy Standards are incorporated with the expectation of a continuum of reading and writing skills development.

HEALTH AND WELLNESS - GRADE 7

Health and Wellness, grade 7 provides for the continued development of attitudes and behaviors related to becoming a health-literate individual as part of a planned, sequential, comprehensive health education curriculum that uses the Indiana Academic Standards for Health and Wellness to support student development of essential health skills within the ten health content areas. In grade seven, students focus on continued skill development and more opportunities for analyzing, modeling, and applying skills that will assist in building competencies for health literacy. These may include decision-making skills, stress management skills, communication skills, social skills, and assertiveness skills. Developmentally appropriate concepts of personal and community health; safety and injury prevention; nutrition and physical activity; mental health; alcohol, tobacco and other drug use; and family life and human sexuality are areas used for skill development. The adolescent student has instructional opportunities to investigate how health behaviors impact health, well-being, and disease prevention and to accept personal responsibility for health-related decisions. Along with the current academic standards for this subject, the Science/Technical Studies Content Area Literacy Standards are incorporated with the expectation of a continuum of reading and writing skills development.

PHYSICAL EDUCATION - GRADE 6

Physical Education in grade 6 is based on the Indiana Academic Standards for Physical Education. Students in grade 6 physical education continue to develop psychomotor skills through participation in a variety of developmentally appropriate sports (individual, dual, and team), rhythmic activities, lifetime recreational activities, and fitness activities. The focus is on the development of complex movement skill combinations and knowledge. The focus is on the development of complex movement skill combinations and knowledge. Students develop an understanding of physiological changes, which occur as a result of physical activity. Students expand their knowledge of fitness concepts, principles, and strategies as well as how other concepts like self-responsibility, positive social interaction, and group dynamics affect learning and performance. Students learn to work cooperatively toward a common goal. Ongoing assessment is conducted throughout the curriculum. Along with the current academic standards, the Science/Technical Studies Content Area Literacy Standards are incorporated in the teaching of this subject with the expectation of a continuum of reading and writing skills development.

PHYSICAL EDUCATION - GRADE 7

Physical Education in grade 7 is based on the Indiana Academic Standards for Physical Education. Students in grade 7 physical education continue to refine complex combinations of movement in selected sports and activities. Students apply more advanced strategies in physical activities and try new sports and lifetime physical activities. The focus is on meeting challenges and making decisions in the context of expanded personal responsibility. Students learn about different cultures and how they relate to the physical activities and dances from those countries. Students continue to expand their knowledge of rules and strategies, sportsmanship, and cooperative skills as well as fitness concepts and the benefits of health-related fitness. Ongoing assessment includes both written and performance-based skill evaluations. Along with the current academic standards, the Science/Technical Studies Content Area Literacy Standards are incorporated in the teaching of this subject with the expectation of a continuum of reading and writing skills development.

PHYSICAL EDUCATION- GRADE 8

Physical Education in grade 8 based on the Indiana Academic Standards for Physical Education. Students in grade 8 physical education further refine complex motor skills and competencies in selected individual and dual lifetime physical activities, team sports, aquatics, adventure, and rhythmic activities. Students work toward achieving competence in increasingly complex physical activity contexts. Students learn to apply interdisciplinary knowledge (e.g., anatomy, physics) to activity settings and focus on working as a team to solve problems. Students develop plans to enhance their own health-related physical fitness and participate in vigorous activities linked to their skills and levels of fitness. Physical activity is used as a venue for self-expression and for developing positive relationships. Ongoing assessment includes both written and performance-based skill evaluations. Along with the current academic standards, the

Science/Technical Studies Content Area Literacy Standards are incorporated in the teaching of this subject with the expectation of a continuum of reading and writing skills development.

STRENGTH AND CONDITIONING - GRADE 8

The strength and conditioning course focuses on the fundamental skills necessary for future athletes. This class is a non-sport specific strength and conditioning program designed to increase overall athletic performance for Junior High students. This combination is designed to promote injury prevention, increase speed, strength, power, and endurance in each student-athlete.

CAREER AND TECHNICAL EDUCATION

PREPARING FOR COLLEGE AND CAREERS - GRADE 8 (High School Credit)

This course addresses the essential knowledge, skills, and behaviors all students need to live successfully in today's world. Topics include building communication and interpersonal skills; planning and building employability skills; transferring skills to life and work; career exploration and planning. The opportunity for ninth graders to develop FOUR YEAR CAREER PLANS will be included, based on local curriculum needs. **(1 semester 1 credit) Grades and credits for this course will be included on the student's high school transcript and will be factored into their cumulative GPA. Required of all 8th Grade students.**

BUSINESS AND INFORMATION TECHNOLOGY, MIDDLE LEVEL - GRADE 6, 7, & 8

This middle school course is an introductory course to keyboarding/computer technology. The first part of the course will focus on keyboarding followed by the basic word processing skills. In addition digital citizenship will be introduced as well. This course will prepare the student to take Digital Citizenship in 7th grade. This approach is in keeping with the ISTE (International Society for Technology in Education) Standards which places heavy emphasis on integrating technology into the curriculum.

DIGITAL CITIZENSHIP - GRADE 6, 7, & 8

This course is an extension of the Information Technology rotation in 6th grade. It will focus on the value of digital citizenship in our society. It will include applications in word processing, presentations, spreadsheets, and digital audio and video. This course will also integrate communication and collaboration activities through projects and activities. This course also focuses on the ISTE Standards which places heavy emphasis on integrating technology in the curriculum.

CODING/WEB DESIGN - GRADE 7 & 8

This course provides instruction in the principles of web design and development using HTML (Hyper Text Markup Language) and CSS (Cascading Style Sheet) and current/emerging software programs. The online experiences are composed of self-guided and self-paced tutorials which use scaffolded sets of programming instructions to explore and practice algorithmic thinking. Instructional strategies include teacher led, peer teaching, collaborative instruction, project-based learning activities.

COMPUTER TECHNOLOGY SUPPORT - BEAR REPAIR - GRADE 7 & 8

Assist the Technology Department with Computer Technical Support. This course is a graded course, and students will be asked to create projects as well as participate in activities outside the regular school day.

- Must be accepted into the program through an application process.
- Teacher recommendation

PROJECT LEAD THE WAY - SCIENCE OF TECHNOLOGY (GTT) - GRADE 6

Science impacts the technology of yesterday, today, and the future. Students apply the concepts of physics, chemistry, and nanotechnology to STEM activities and projects, including making ice cream, cleaning up an oil spill, and discovering the properties of nano-material.

PROJECT LEAD THE WAY - MEDICAL DETECTIVES - GRADE 7 & 8

Students play the role of real-life medical detectives as they analyze genetic testing results to diagnose disease and study DNA evidence found at a “crime scene.” They solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, and learn how the systems of the human body work together to maintain health.

PROJECT LEAD THE WAY - ENERGY & the ENVIRONMENT - GRADE 7 & 8

Students are challenged to think big and toward the future as they explore sustainable solutions to our energy needs and investigate the impact of energy on our lives and the world. They design and model alternative energy sources and evaluate options for reducing energy consumption.

PROJECT LEAD THE WAY - DESIGN AND MODELING - GRADE 7 & 8

Students apply the design process to solve problems and understand the influence of creativity and innovation in their lives. They work in teams to design a playground and furniture, capturing research and ideas in their engineering notebooks. Using Autodesk® design software, students create a virtual image of their designs and produce a portfolio to showcase their innovative solutions.

PROJECT LEAD THE WAY - AUTOMATION AND ROBOTICS - GRADE 7 & 8

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.

PROJECT LEAD THE WAY - INTRODUCTION TO COMPUTER SCIENCE and APP INVENTOR - GRADE 7 & 8

Computer Science for Innovators and Makers (IM) teaches students that programming goes beyond the virtual world into the physical world. Students are challenged to creatively use sensors and actuators to develop systems that interact with their environment. While designing algorithms and using computational thinking practices, students code and upload programs to microcontrollers that perform a variety of authentic tasks. The unit broadens students’ understanding of computer science concepts through meaningful applications. Teams select and solve a personally relevant problem related to wearable technology, interactive art, or mechanical devices.

PLTW App Creators introduces students to the field of computer science and the concepts of computational thinking, through the creation of mobile apps. Students are challenged to be creative and innovative, as they collaboratively design and develop mobile solutions to engaging, authentic problems. Students experience the positive impact of the application of computer science to society as well as to other disciplines, particularly biomedical science.

ENGINEERING AND TECHNOLOGY, MIDDLE LEVEL - GRADE 8

Engineering and Technology Education, Middle Level provides students with hands-on, problem-based learning opportunities to develop, produce, use, and assess products related to engineering and technology. Students additionally develop individual and teamwork skills to participate in society and the workplace. The four domains included in these standards are general engineering and technology concepts, engineering design and development, producing and using technology, and technology careers. Activities should focus on content related to engineering and technology as a body of knowledge, using resources and actions to: (1) apply engineering design, (2) use processes to produce artifacts and systems, (3) use devices tools and systems safely and appropriately, (4) and assess impacts on society and the environment. Along with the current academic standards for this subject, the Science/Technical Studies Content Area Literacy Standards are incorporated with the expectation of a continuum of reading and writing skills development.

MIDDLE LEVEL EXPLORING AGRICULTURE SCIENCE AND BUSINESS - GRADE 7 & 8

The Middle Level Agriculture Science and Business has flexibility in content due to the variety of local offerings. The nature of this course is to provide students with an overview of various aspects of the agriculture industry. Topics to be covered in this course can include: leadership, supervised agriculture experience, plant and soil science, natural resources, animal science, agribusiness, food science, and power, structure, and technical systems. Along with the current academic standards for this subject, the Science/Technical Studies Content Area Literacy Standards are incorporated with the expectation of a continuum of reading and writing skills development.

FAMILY AND CONSUMER SCIENCES, MIDDLE LEVEL - GRADE 6, 7, & 8

Family and Consumer Sciences, Middle Level (FACS) prepares students to begin their journey toward becoming independent, productive citizens. The middle school curriculum includes standards for five units of study that are essential for ALL students: Life and Careers, Financial Literacy, Nutrition and Wellness, Human Development, and Relationships. Family and Consumer Sciences (FACS), Middle Level prepares students to acquire personal skills and plan ways to transfer those skills to the workplace; investigate and assume appropriate individual and family roles; understand and apply concepts of balancing work and family; and acquire skills and attitudes that lead them to contribute to the good of the community and society. FACS curriculum includes acquisition of problem-solving, decision-making, higher-order thinking, communication, literacy, and numerical skills in applied community, work, and family contexts. Along with the current academic standards for this subject, the Science/Technical Studies Content Area Literacy Standards are incorporated with the expectation of a continuum of reading and writing skills development.