

# Northeastern Middle School

## 2019-2020 Course Description Guide

### 6<sup>th</sup> Grade

#### **ELA Reading 6 — 0423.06**

Students apply skills they 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, 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, magazines and newspapers, various reference or technical materials, and online information. Students self-select books of interest and read independently for enjoyment.

#### **ELA Writing 6 — 0424.06**

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.

#### **Math 6 — 0430.06**

Students begin 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 and mathematics situations; and begin to develop 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.

#### **Science 6 — 0460.06**

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.

#### **Social Studies 6 — 0470.06**

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) the Caribbean region, and (6) Antarctica. 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.

### 7<sup>th</sup> Grade

#### **English 7 – 0420.07 / 0420.07A / 0420.07B**

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 self-select books of interest and read independently for enjoyment. Students develop advanced skills and strategies in language. 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 write or deliver longer research reports that take a position on a topic, and they support their positions by citing a variety of sources. They use a variety of sentence structures and modifiers to express their thoughts. They deliver persuasive presentations that state a clear position in support of an arguments or proposal. Students also listen to literature read aloud to them and write independently for enjoyment.

### **Math 7 - 0430.07 / 0430.07B**

Students continue 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.

### **Pre-Algebra 7 – 2508.07**

Pre-Algebra is designed to help students make the transition from previous math courses to Algebra. It emphasizes skills and concepts such as variables, solving equations and problem solving. Other topics include integers, rational and real numbers, inequalities, the coordinate plane, geometric figures, area, volume, right triangles, statistics and probability. A variety of applications of mathematics are also investigated.

### **Science 7 – 0460.07**

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 single-celled to multicellular.

### **Geography 7 – 0470.07**

Students in seventh grade compare the history, geography, government, economic systems, current issues, and cultures of the Western World with an emphasis on: (1) Asia, (2) Africa, (3) the Commonwealth of Independent States, (4) the Middle East, (5) the Pacific Islands, (6) Australia, and (7) New Zealand. Learning experiences for seventh grade students should help them to make the transition from concrete examples 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.

## **8<sup>th</sup> Grade**

### **English 8 – 0420.08 / 0420.08A / 0420.08B**

Students begin to study the history and development of English vocabulary. They begin to compare different types of writing as well as different perspectives on similar topics or themes. They 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 self-select books of interest and read independently for enjoyment. 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.

### **Algebra 1, Grade 8 – 2520.08**

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.

- Credits: A two credit course

- Fulfills the Algebra I/Integrated Mathematics I requirement for the General, Core 40, Core 40 with
- Academic Honors and Core 40 with Technical Honors 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
- Qualifies as a quantitative reasoning course

### **Pre-Algebra 8 – 2508.08**

Pre-Algebra is designed to help students make the transition from previous math courses to Algebra. It emphasizes skills and concepts such as variables, solving equations and problem solving. Other topics include integers, rational and real numbers, inequalities, the coordinate plane, geometric figures, area, volume, right triangles, statistics and probability. A variety of applications of mathematics are also investigated.

### **Science 8 – 0460.08**

Students in eighth grade understand how atomic structure determines chemical properties and how atoms and molecules interact. 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.

### **US History 8 – 0470.08**

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) antiwar 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.

# Northeastern Middle School

## 2019-2020 Course Description Guide

### **Band 7/8 – 0442.78**

**Length:** 1 year

**Grade:** 7 & 8

Band is offered to students with prior band experience or students who are willing to take private lessons if they have no prior band experience. The 7th and 8th grade bands meet together but are divided into a woodwind group and a brass/percussion group, each group meeting during a different class period. During their class time, students continue to learn about playing their instruments and being a part of a large ensemble. As the students grow in age and maturity, the musical demands increase and knowledge is expanded. Concerts are performed each 9-week grading period. Students are also introduced to marching band basics and participate in local parades. Besides learning about how to play an instrument, students also develop leadership skills while learning about respect, discipline and team work.

### **Band 6 – 0442.06**

**Length:** 1 year

**Grade:** 6

Band is offered to students with prior band experience or students who are willing to take private lessons if they have no prior band experience. During their class time, students continue to learn about playing their instruments and being a part of a large ensemble. As the students grow in age and maturity, the musical demands increase and knowledge is expanded. Concerts are performed each 9-week grading period. Students are also introduced to marching band basics and participate in local parades. Besides learning about how to play an instrument, students also develop leadership skills while learning about respect, discipline and team work.

### **Choir – 0445.MS**

**Length:** 1 semester

**Grade:** 7 & 8

Do you enjoy singing? If so, you will definitely want to be a part of the Choir. Students in the 7th and 8th grades will be combined. Besides singing, students will enjoy learning about music theory and will have opportunities to do creative musical projects. The choir will sing at the end of each 9-week grading period in a Middle School Music Concert. Even though Choir is a semester elective, students are welcome to choose to be in choir for the whole school year.

### **Color Guard – 0414.78**

**Length:** 1 semester

**Grade:** 7 & 8

7th and 8th grade students are invited to select Color Guard as an elective if they are interested in exploring movement, dance and flags. The Color Guard class will be offered during both elective periods. 7th and 8th grade students will be combined. The class work will include instruction for both beginners and people with experience. Any student who hopes to be a Color Guard in high school is STRONGLY encouraged to take this class. The class lasts 1 semester, but students may choose to be in it for the entire year. Performance opportunities will take place every 9 weeks at middle school music concerts or parades.

### **World Music – 0440.MS**

**Length:** 1 semester

**Grade:** MS

What is sound? How do we hear music? How does a drum work? In this class we will explore many aspects of music, beginning with the science of sound and music. We will also learn about music of other cultures, use new instruments, and share music from our favorite musicians. The class will use GarageBand App to create your own music!

### **Health Skills and Careers – 0453.78**

**Length:** 1 semester

**Grade:** 7 & 8

The students will be learning basic first aid for all types of emergencies. This class will also introduce students to the basic procedures for CPR and choking. This class will include hands on activities. Students will hear from guest speakers from the health field.

### **Fitness Fun – 0454.78**

**Length:** 1 semester

**Grade:** 7 & 8

Students will be engaged in various fitness activities that will benefit them physically, mentally/emotionally, and socially. Some units include: jump roping, frisbee, and student-created games. Students will need to wear their PE uniform and tennis shoes for this class.

## **Outdoor Recreation and Sports – 0451.78**

**Length:** 1 semester

**Grade:** 7 & 8

In this elective, students will be exposed to outdoor recreational activities and sports. We will spend time learning archery basics and putting our skills to the test at a 3D target course or target shooting range. Students will also get hands on experience with fishing skills from experienced locals. We will also learn about survival skills which will include types of camping, safety, and how to cook food in different environments. Students will also enjoy the classic outdoor yard games that include Kan Jam, corn hole, washers, and bocce ball.

## **Body in Motion — 0457.78**

**Length:** 1 semester

**Grade:** 7 & 8

The big units we will be learning about are anatomy, kinesiology, and athletic training. It will be targeted towards students who have an interest in any of these topics, as well as an interest in a career in the medical/biology/athletic training field. This class will meet in the health classroom every day. My hope is to have guest speakers come in from Reid (or take a field trip to Reid) and our Athletic Trainer and student athletic trainees.

## **Conditioning — 0456.78**

**Length:** 1 semester

**Grade:** 7 & 8

Students will take part in 4 days of lifting per week with a personalized workout program that is very easy to follow along with. They will lift in a group setting and be responsible for turning in papers at the end of each week documenting their lifts. One day a week, we will be performing agility tests or a plyometrics routine. Students will be expected to dress out daily.

## **Wellness 6 – 0452.06**

**Length:** 1 semester

**Grade:** 6

Students in Grade 6 physical education continue to develop psychomotor skills through participation in a variety of developmentally appropriate sports related activities (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. Students develop an understanding of physiological changes which occur as a result of physical activity. They 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.

## **Wellness 7 – 0452.07**

**Length:** 1 semester

**Grade:** 7

Middle school health education provides for the continued development of attitudes and behaviors related to becoming a health-literate individual. This course is part of a planned, sequential, comprehensive health education curriculum that uses the 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.

## **Wellness 8 – 0452.08**

**Length:** 1 semester

**Grade:** 8

Middle school health education provides for the continued development of attitudes and behaviors related to becoming a health-literate individual. This course is part of a planned, sequential, comprehensive health education curriculum that uses the Academic Standards for Health and Wellness to support student development of essential health skills within the ten health content areas. In grade eight, students focus on continued skill development and more opportunities for analyzing, modeling, and applying skills that will assist in building competencies for health literacy. Students apply health education concepts and health literacy skills, e.g., practicing interpersonal communications that promote health; analyzing positive and negative, internal and external influences on health decisions; and demonstrating self-care practices in managing personal daily activities. 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.

### **PLTW — App Creators — 0468.78**

**Length:** 1 semester

**Grade:** 7 & 8

This unit will expose students to computer science by analyzing and developing solutions to authentic problems through mobile app development and will convey the positive impact of the application of computer science to other disciplines and to society.

### **PLTW — Innovators and Makers — 0488.MS**

**Length:** 1 semester

**Grade:** MS

Students will learn the basics of computer programming, types of inputs and outputs, how to find and fix bugs within codes, and how to create their own codes.

### **PLTW — Medical Detectives – 0465.78**

**Length:** 1 semester

**Grade:** 7 & 8

Students play the role of real-life medical detectives as they collect and analyze medical data to diagnose disease. They solve medical mysteries through hands-on projects and labs, measure and interpret vital signs, dissect a sheep brain, investigate disease outbreaks, and explore how a breakdown within the human body can lead to dysfunction.

### **PLTW - Design & Modeling — 0466.78**

**Length:** 1 semester

**Grade:** 7 & 8

Have you ever wanted to create a toy or a device to help people? In this class, students use tools such as the design process, a dynamic mathematics software, a computer-aided design program, computer simulations, and an engineering notebook to design, model, and build objects. Discover the design process and turn your ideas into realities!

### **Creative Writing — 0421.MS**

**Length:** 1 semester

**Grade:** MS

In creative writing, students will create a portfolio of 5-7 short stories, poems, pieces of flash fiction, and stylistic imitations. In class we will dive into genres of fiction, and focus heavily on planning, organization, editing and revising, and the production of polished pieces of writing. We will also be studying and analyzing the creative writing of others. The course will conclude with a reading to celebrate the writing of these students.

### **Student Publications/Yearbook – 0429.78**

**Length:** 1 semester

**Grade:** 7 & 8

This semester long course will be open to students with an interest in writing and photography. Students will be responsible for creating a bi-weekly newspaper as well as creating/gathering content for the NMS Yearbook. Students in this class will be expected to work together to create publications that showcase the exciting things happening at NMS during the school year!

### **Makerspace Art – 0491.06**

**Length:** 1 semester

**Grade:** 6

Students will complete a variety of artistic projects and experience painting, art through technology, building 3D structures and other types of art.

### **Geometric Art – 0433.MS**

**Length:** 1 semester

**Grade:** 7 & 8

Students will create art using Geometric terms and concepts such as Tessellations, Vertices, Angles, Edges, Polygons, 3D figures.

### **Agriculture – 0496.MS**

**Length:** 1 semester

**Grade:** MS

Students will learn all about soil and will conduct soil testing. We will explore various careers within the agriculture field and will learn from those currently working in some of those positions.

### **Genius Hour – 0422.MS**

**Length:** 1 semester

**Grade:** MS

Genius Hour will give students an opportunity to explore their own passions and creativity. Based on Google's 20% time initiative, Genius Hour will provide students a choice in what they learn and give them an opportunity to explore an interest or passion. Students will be challenged to explore a topic and then create a display of their learning. Genius Hour will focus on and strengthen student's researching and presentation skills.

### **STEM Explorations – 0467.06**

**Length:** 1 semester

**Grade:** 6

Students will use the Engineering Design Process to complete a variety of STEM challenges. Using collaboration, students will design and test prototypes which meet given criteria and constraints. Each week students will be presented with a new STEM challenge that requires them to use the design engineering process. Below is a list of various STEM challenges to select from:

- Balloon Cars
- Bridge Building (two options in folder available)
- STEM Sports Challenge
- Various Holiday Challenges (Candy Corn, Gum Drop, Christmas Toy, Sledding)
- Save Fred
- Binary Code (beads)
- Penny Challenge

During January- February, this class will participate in CANstruction Community Service Project.

### **Edgenuity - Foreign Language**

**Length:** 1 semester

**Grade:** 7 & 8

Students take courses through the online learning platform Edgenuity. 7th and 8th grade students can sign up for this class and will need approval from a parent and administrator to proceed. Current courses available are Chinese, French, German, Latin and Spanish.

### **Exploring College and Careers – 0431.08 (REQUIRED)**

**Length:** 1 semester

**Grade:** 8

Exploring College and Careers provides students opportunities to explore their personal goals, interests, and aptitudes as they relate to career concepts, including the 16 national career clusters and Indiana's College & Career Pathways, and determine what they want and expect for their future. Students learn about various traditional and nontraditional careers and gain an awareness of the level of education and type of training needed for a variety of careers and occupations. Students build good study habits, expand their technology skills, develop or update their Graduation Plans, and complete a college and career readiness exam. Virtual and real life opportunities are provided for students to observe and explore various careers. 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.

### **Digital Citizenship – 0495.06 (REQUIRED)**

**Length:** 1 semester

**Grade:** 6

This course utilizes digital units from Common Sense Media for grades 6-8. Lesson topics include Internet Safety, Privacy/Security, Self-Image/Identity, Digital Footprint/Reputation, Information Literacy, Creative Credit/Copyright, Relationships/Communication and Cyber-bullying. Parent information and tips are available also.

### **Digital Productions – 0409.78**

**Length:** 1 semester

**Grade:** 7 & 8

Digital Productions is a class that focuses on producing middle school newscasts. The class provides students with the skills that are necessary to create, edit, and publish these newscasts. While creating the middle school announcements, students explore many aspects of publication such as interviewing, copyright law, and photography. The class enables students the opportunity to publish to an authentic audience as they share their finished product.

# MS Remediation Courses by Selection

## English Lab MS – 0428.MS

**Length:** 1 semester

**Grade:** 6, 7, 8

This course is designed to extend reading and writing skills beyond the regular ELA classroom. Offering two distinct 9-week concentrations, there will be an interactive reading or writing workshop approach for each session. Students will be teacher selected with emphasis placed on building a writing repertoire and/or strengthening close reading and critical thinking skills. Students may be invited to participate for one or two 9-week periods throughout the school year.

## Math Lab 6 – 0432.06

**Length:** 1 semester

**Grade:** 6

Math Remediation students will be studying/reinforcing the critical and important standards at their grade level. The standards covered will be from the 6 strands tested on the ILEARN at their grade level: Number Sense; Computation; Algebra and Functions; Geometry and Measurement; Data Analysis, Statistics, and Probability; and Mathematical Process. The students will be using hands on activities, IXL and Mathspace, supplementary materials, Desmos App (calculator app on each iPad), writing to strengthen their math skills. and small group instruction to work on previous skills.

## Math Lab 7 – 0432.07

**Length:** 1 semester

**Grade:** 7

Math Remediation students will be studying/reinforcing the critical and important standards at their grade level. The standards covered will be from the 6 strands tested on the ILEARN at their grade level: Number Sense; Computation; Algebra and Functions; Geometry and Measurement; Data Analysis, Statistics, and Probability; and Mathematical Process. The students will be using hands on activities, IXL and Mathspace, supplementary materials, Desmos App (calculator app on each iPad), writing to strengthen their math skills. and small group instruction to work on previous skills.

## Math Lab 8 – 0432.08

**Length:** 1 semester

**Grade:** 8

Math Remediation students will be studying/reinforcing the critical and important standards at their grade level. The standards covered will be from the 6 strands tested on the ILEARN at their grade level: Number Sense; Computation; Algebra and Functions; Geometry and Measurement; Data Analysis, Statistics, and Probability; and Mathematical Process. The students will be using hands on activities, IXL and Mathspace, supplementary materials, Desmos App (calculator app on each iPad), writing to strengthen their math skills. and small group instruction to work on previous skills.