

# **Northern Bedford County Middle School**



## **Course Description Guide**

*Updated March 2023*

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## Required Courses by Grade Level

### Grade 6

#### Core Classes

Math 6  
Mathia 6 (½ Credit)  
Reading 6  
Geography  
Science 6  
Language Arts 6

#### Specials

Physical Education 6  
Family Consumer Science 6  
Computer Science/Literacy 6  
Art 6  
Technology Education 6  
Music 6  
STEM 6

#### Electives

Students may take Band 6 and/or MS Choir in place of Music 6

### Grade 7

#### Core Classes

Math 7 or Pre-Algebra 7  
Mathia 7 (½ Credit)  
Reading 7  
American History I  
Science 7  
English 7

#### Specials

Physical Education 7  
Art 7  
Music 7  
CEW Skills 7  
Computer Science/Literacy 7  
Technology Education 7 (girls)\*  
Family Consumer Science 7 (boys)\*  
STEM 7

#### Electives

Students may take MS Choir or MS Band  
PA Environment & Ecology - by assignment only

## **Grade 8**

### **Core Classes**

Pre-Algebra 8 or Algebra I

Mathia 8 (½ Credit)

Reading 8

American History II

Science 8

English 8

### **Specials**

Physical Education 8

Art 8

Music 8

Spanish 8

Computer Science/Literacy 8

Technology Education 8 (boys)\*

Family Consumer Science 8 (girls)\*

STEM 8

### **Electives**

Students may take MS Choir or MS Band

*\* In seventh grade, Grade 7 boys are required to take Family Consumer Science 7 and Grade 7 girls are required to take Technology Education 7. In eighth grade, Grade 8 boys are required to take Technology Education 8 and Grade 8 girls are required to take Family Consumer Science 8.*

## **Middle School Grade Scale**

A- 94-100  
B- 87-93  
C- 78-86  
D- 70-77  
F-below 70  
Passing on Effort- S  
Incomplete- I

## **Finding Missed Assignments**

Teachers utilize Canvas or Google Classroom as online platforms. When students miss school, they are to check the appropriate online platform for missed assignments and email their teachers to see if there are any other missed assignments. Please refer to the course syllabus that each student receives during the first week of school for specific directions.

# **MATHEMATICS**

## **Math 6**

Math 6 is a rigorous course designed to cover all content in relation to the PA Common Core Standards. This course covers the number system, ratios and proportional relationships, expression and equations, geometry, statistics and probability, and any additional concepts needed to be successful in math. This course builds a foundation in concepts, procedures, and vocabulary that is essential for future success in mathematics.

Math 6 currently utilizes Carnegie Learning's consumable Course 1 textbook. The content is based on thought provoking questions and requires students to express their thought process, devise a plan, compute the steps in their plan, and justify their answers.

## **Mathia 6**

The virtual aspect of the Carnegie Learning series, Mathia, works in conjunction with the book content and provides review and reinforcement for students to help with mastery of the skills. Mathia 6 is a half credit course graded off completion of workspaces. Students are expected to complete twenty workspaces over the course of a marking period.

## **Math 7**

Math 7 will cover the basic concepts of Mathematics that will prepare the students to move into Pre-Algebra course next year. The major concepts that will be covered are integers, decimals, fractions, percentages, expressions, and equations. These concepts will allow the students to smoothly transition into a grade 8 math course. Students will continue to use these skills beyond the classroom to solve real-life problems.

Math 7 currently utilizes Carnegie Learning's consumable Course 2 textbook. The content is based on thought-provoking questions and requires students to express their thought process, devise a plan, compute the steps in their plan, and justify their answers.

## **Pre-Algebra 7**

Pre-Algebra 7 includes all the standard topics of middle school mathematics. The major concepts that will be covered are integers, decimals, fractions, percentages, expressions, and equations. The course also covers more in-depth algebraic concepts to enable students to begin transition to Algebra I.

Students taking this course will need to have an advanced PSSA score as well as an A average for the year to be guaranteed placement in Algebra I during grade 8. Students close to meeting these requirements will be looked at on a case-by-case basis involving the staff and administrators. Availability will be based on space/class size.

## **Mathia 7**

The virtual aspect of the Carnegie Learning series, Mathia, works in conjunction with the book content and provides review and reinforcement for students to help with mastery of the skills. Mathia 7 is a half credit course graded off completion of workspaces. Students are expected to complete twenty workspaces over the course of a marking period.

## **Pre-Algebra 8**

Pre-Algebra 8 is a rigorous course designed to cover all content in relation to the PA Common Core Standards. This course covers the number system, geometry, functions, linear equations, powers and scientific notation, and any additional concepts needed to be successful in math. This course builds a foundation in concepts, procedures, and vocabulary that is essential for future success in mathematics.

Pre-Algebra 8 currently utilizes Carnegie Learning's consumable Course 2 textbook. The content is based on thought provoking questions and requires students to express their thought process, devise a plan, compute the steps in their plan, and justify their answers.

## **Algebra I**

Algebra I is a course designed for all students as a foundation for the rigorous courses in the high school. Problem solving is integrated throughout. Reasoning skills such as analyzing information and making conjectures are developed. The course has been enhanced according to the standards required to pass the Keystone exams and now includes solving inequalities, systems of equations and other relevant topics. Students must pass the Algebra I course and the Keystone Algebra I exam to advance to the next math course in the high school.

## **Mathia 8**

The virtual aspect of the Carnegie Learning series, Mathia, works in conjunction with the book content and provides review and reinforcement for students to help with mastery of the skills. Mathia 8 is a half credit course graded off completion of workspaces. Students are expected to complete twenty workspaces over the course of a marking period.

**MATH PLACEMENT CRITERIA – Pre-Algebra 7 and ALGEBRA I** - When students move from grade six to grade seven, they have no special placement in classes except in mathematics and reading. At the end of the sixth grade, students are evaluated in their mathematics achievement based upon grades in mathematics, standardized test scores in mathematics, and teacher recommendation. Students are then generally placed according to the following plan:

1. The highest top one-half (approximately) of the seventh graders are placed in Pre-Algebra 7. Most of the students completing this course go on to Algebra I in grade 8. A few of the students who are not successful in Pre-Algebra 7 may be scheduled into Pre-Algebra 8 and then into Algebra I in grade nine.
2. The remaining seventh graders are placed in Math 7. All students completing this course successfully advance to Pre-Algebra 8 in grade eight, with the expectation of scheduling Algebra I or Algebra IA in grade nine.
3. Students who complete Pre-Algebra 7, score Advanced or Proficient on the Grade 7 Math PSSA, and maintain a “C” or higher final grade for Pre-Algebra 7 will be placed in Algebra I in Grade 8.
4. Students who complete Pre-Algebra 7, score Basic on the Grade 7 Math PSSA, and maintain a “C” or higher final grade for Pre-Algebra 7 may be enrolled in Algebra I on a provisional status.
5. Students scoring Advanced or Proficient in Math 7 may be enrolled in Algebra I on a provisional status.
6. Students taking Algebra I in Grade 8 not scoring Advanced or Proficient will repeat Algebra I in Grade 9.



# **READING / ENGLISH**

## **Reading 6**

Reading 6 will expand on and improve the basic reading skills acquired in the earlier grades. The major skills to be developed will be literal comprehension, interpretive reading, vocabulary development, and critical and creative reading. Also incorporated into the course are the communication skills of writing and speaking. Combining language arts with the basic reading process will aid in maximizing student motivation and performance.

## **Language Arts 6**

English 6 enables the students to use oral and written language effectively. To accomplish this, emphasis is placed on grammar, parts of speech, spelling, related language skills, practical communication, and creative expression. Students will be given opportunities to practice to apply these skills in both writing and speaking projects.

## **Reading 7**

Reading 7 will expand on and improve the basic reading skills acquired in the earlier grades. The major skills to be developed will be literal comprehension, interpretive reading, vocabulary development, and critical and creative reading. Also incorporated into the course are the communication skills of writing and speaking. Combining language arts with the basic reading process will aid in maximizing student motivation and performance.

## **English 7**

English 7 prepares students to express themselves fluently in standard English. Students receive a review of basic English usage, grammar, and mechanics. They develop writing skills through the use of various techniques and develop vocabulary skills throughout the course, as well.

## **Reading 8**

Reading 8 will expand and improve the basic reading skills acquired in the earlier grades. The major skills to be developed will be literal comprehension, interpretive reading, vocabulary development, and critical and creative reading. Also incorporated in this course are the communication skills of writing and speaking. Combining language arts with the basic reading process will aid in maximizing student motivation and performance.

## **English 8**

English 8 will prepare students to express themselves fluently in standard English. Students receive a review of English usage, grammar and mechanics. They will continue to develop their writing skills through the use of a variety of writing approaches. The course also stresses the development of vocabulary skills throughout the course.

# **SCIENCE**

## **Science 6**

Science 6 includes the study of three basic branches of science - Life Science, Earth Science and Physical Science. The focus will mainly be on the scientific method and Earth science. Concepts will be learned using real world examples and hands-on activities. As a culmination of nature of science activities, students will complete a science fair project to present to the class and community. Various projects throughout the year will be an alternate assessment to the different science topics. Time will also be given to the areas specifically covered in the Envirothon when it pertains to the curriculum. The course will be supplemented with video materials, computer online programs when applicable.

## **Science 7**

Science 7 is an integrated course focusing on aspects within the realms of life science and cells and heredity. Life science will be the focus of the class for most of the year. The concepts will be learned using real world examples and hands-on laboratories. The course will be supplemented with video materials and computer software where applicable.

## **PA Environment and Ecology 7**

The 7<sup>th</sup> grade environment and ecology course will be a term course (MP 1 and MP 2) consisting of 5 units using the PA focused approach to learning and interacting. Content will include watersheds and wetlands, renewable and nonrenewable resources, agriculture and society, ecosystems and their interactions, and threatened, endangered, and extinct species. Course materials will be selected by the instructor and provided to the students. Placement for this course is by interest and schedule availability. This will serve as a quarter credit course assessed on a Pass/Fail scale.

## **Science 8**

Science 8 is an integrated program focusing on aspects within the realms of physical science, geology and volcanology, electricity, and ecological science. Physical science will be the focus of the class for the first half of the year. The students will then experience earth science and electricity in consecutive units. The year will wrap up with a unit on ecology and our ecosystems.

# **SOCIAL STUDIES**

## **Geography 6**

Geography 6 will provide students with knowledge of Earth's geography based on the 5 Themes of Geography. An in-depth study of the United States based on the 5 Themes of Geography will also be included. CNN Student News will also be used as a classroom tool to help improve knowledge of current world events.

## **American History I (Grade 7)**

American History I will expose students to history from the beginnings of America to the pre-Civil War era (mid 1800s). Students will explore many of the events from this time period, which have shaped our nation. This journey will be chronological in order with the exception of current events, which we will discuss from time to time. Students will be involved in many different projects throughout the year; these may include art, research, writing, map study, and presentations in front of the class. Some of the projects will be completed individually, while others will involve groups.

## **American History II (Grade 8)**

American History II will expose students to history from the pre-Civil War era (mid 1800s) to the end of World War I (early 1900s). Students will explore many of the events from this time period that have shaped our nation. We will also address events and documents that continue to impact our country today. One document we will spend several weeks on will be the United States Constitution and its impact on our lives as citizens. Students will be involved in many different projects throughout the year; some of these include art, research, writing, and map study. Some projects will be completed individually, while others will involve groups.

# **SPECIALS**

## **Art 6**

Art 6 provides the student with the opportunity of self-expression through the visual arts with emphasis on problem solving skills to do various projects in different mediums. Art skills will be developed further from previous grades to enhance the student's knowledge of basic art fundamentals. Projects focus on the seven elements of design.

## **Art 7**

Art 7 provides the student with the opportunity of self-expression through the visual arts with emphasis on problem solving skills to do various projects in different mediums. Art skills will be developed further from previous grades to enhance the student's knowledge of basic art fundamentals. Students learn about art techniques while studying art and artists from various periods in art throughout history.

## **Art 8**

Art 8 provides the student with the opportunity of self-expression through the visual arts with emphasis on problem solving skills to execute various projects in different mediums. Art skills will be developed further from previous grades to enhance the student's knowledge of basic art fundamentals. Students learn about art techniques while studying art and artists from various disciplines, as well as periods in art throughout history until the present day.

## **Career, Education, and Work (CEW) Skills 7**

Career Education and Work (CEW) Skills is a course that all grade 7 students take. It is designed to develop skills that are beneficial and necessary for students during the middle/high school years and in their future. The course content is based on Pennsylvania's Career Education and Work Standards (Chapter 4 of Title 22), which address four specific areas of knowledge: (1) Career Awareness and Preparation, (2) Career Acquisition, (3) Career Retention and Advancement, and (4) Entrepreneurship. Successfully completing this course helps students meet Chapter 339's Career Portfolio requirements.

## **Computer Science/Literacy 6**

Computer Literacy 6 is designed to be an introduction to computer keyboarding skills and parts of the computer. The biggest emphasis in the class will be development of proper key stroking skills. Students will learn to key with all fingers using proper, generally accepted reaches and techniques. There will be an introduction to Google Workspace (Google Docs). Students will also be introduced to basic levels of coding and command problem solving. Internet safety and social media awareness will also be a priority as the F.B.I Safe Online Surfing course will be completed.

## **Computer Science/Literacy 7**

Computer Literacy 7 is designed to improve students' computer and keyboarding skills on an intermediate level. Emphasis on special characters and numbers. This course will also help develop students' skills with Google Workspace. Special emphasis on Sheets and Docs. Students will also explore intermediate levels of coding and command problem solving. Internet safety and social media awareness will also be a priority as the F.B.I Safe Online Surfing course will be completed.

### **Computer Science/Literacy 8**

Computer Literacy 8 is designed to improve the students' computer skills on an advanced level. Students will complete a formal letter and business header. Emphasis on Google Workspace in the areas of Sheets and Slides. Students will also develop advanced levels of coding and command problem solving. Internet safety and social media awareness will also be a priority as the F.B.I Safe Online Surfing course will be completed.

### **Family and Consumer Science 6**

Family and Consumer Science 6, required for all sixth grade students, is an introductory course in foods and nutrition and sewing and textiles. The course focuses on wellness, healthy food choices, food preparation, and kitchen management. Students, working in small groups, prepare various foods. They will also learn about project design, embroidery, machine sewing, and hand sewing while making black and white NBC pillows.

### **Family and Consumer Science 7/8**

Family and Consumer Science 7/8, required for all seventh grade boys and eighth grade girls, provides students with continuing experiences in foods and nutrition and sewing and textiles. Students focus specifically on various foods—including fruits, vegetables, milk, yogurt, cheese, grain products, legumes, poultry, fish and shellfish, meat, eggs, salads, soups, baked goods, and beverages—and participate in a range of cooking experiences. They also learn about pattern reading, apparel design, and clothing construction while completing an apron and an extension activity of their choice.

### **Music 6**

Music 6 is taken by all students, except for those enrolled in Band or Choir. This class will focus on elements of music history, music theater, music production, and technology.

### **Band 6**

6th Grade Band is open to students who wish to begin a band instrument in woodwinds, brass, or percussion. Students will be placed in an instrumental lesson group that meets once a week as well as a full band period that meets for a semester in the spring. Emphasis in 6th grade band is to create a quality tone, learn basic posture, learn basic music theory, develop good practice techniques, and advance in musical training to the full beginning band level in semester two. Placement into the 6th grade band must be discussed with the band director for approval.

## **Music 7**

Music 7 is taken by all students, except for those enrolled in Band. This course surveys Musical Elements, Notation, History, Composers, Genres, and Styles. Basic Guitar skills will be introduced and applied to simple folk songs. Students will be exposed to various music topics and contemporary music trends. This course is designed to meet the standards that have been developed by the Pennsylvania Department of Education.

## **Middle School Band (Grades 7 & 8)**

Middle school band is the next level of advancement from 6th grade band. We will continue to develop ensemble and personal musicianship skills towards two concerts, one at Christmas and one in the Spring. A prerequisite of prior instrumental experience is preferred but not required. Any new student wishing to join band at this level should seek instruction and approval from the band director.

## **Middle School Choir (Grades 6, 7 & 8)**

Middle School Chorus is open to all students in the middle school with enrollment based on teacher recommendation. Emphasis is placed on singing ability and musicianship. The chorus performs two major concerts per year and may participate in other musical events throughout the year.

## **Instrumental 7**

Instrumental 7 is a requirement of all 7th grade students who are enrolled in Middle School Band. Class content includes music theory and basic skills necessary to perform musically on an instrument. Students will continue through the Essential Elements 2000 series and other supplemental material.

*Prerequisite - Must be enrolled in Middle School Band.*

## **Music 8**

Music 8 is taken by all students, except for those enrolled in Band. This course continues the survey of Musical Elements, Notation, History, Composers, Genres, and Styles. Guitar skills will be reviewed, developed, and used in the study of current music. Students will be exposed to various music topics and contemporary music trends. This course is designed to meet the standards that have been developed by the Pennsylvania Department of Education.

## **Instrumental 8**

Instrumental 8 is a requirement of all 8th grade students who are enrolled in Middle School Band. Class content includes music theory and basic skills necessary to perform musically on an instrument. Students will continue through the Essential Elements 2000 series and other supplemental material.

*Prerequisite - Must be enrolled in Middle School Band.*

## **Physical Education 6**

Physical Education is a course designed to develop the changing physical and social aspects of the adolescent student. Students are introduced to the fundamentals of team and individual sports, which include skills, rules and basic game strategy. Emphasis in the program is placed on the continuing development of basic fundamental skills. Activities are designed to help the individual improve their overall physical fitness.

## **Physical Education 7**

Physical Education is a course designed to develop the changing physical and social aspects of the adolescent student. Students are introduced to the fundamentals of team and individual sports, which include skills, rules and basic game strategy. Emphasis in the program is placed on the continuing development of basic fundamental skills. Activities are designed to help the individual improve their overall physical fitness.

## **Physical Education 8**

Physical Education is a course designed to develop the changing physical and social aspects of the adolescent student. Students are provided with activities that will further develop the fundamentals of team and individual sports, which include skills, rules and game strategy. Emphasis is placed on providing an opportunity for continued individual growth and success both physically and socially.

## **Health 8**

Health 8 is a course designed to meet the needs of the eighth grade student. It covers a number of topics including human sexuality, tobacco use, alcohol use and other relevant health issues. Special emphasis is placed on refusal skills and handling peer pressure.

## **Spanish 8**

Spanish 8 begins with basic vocabulary such as numbers and progresses to combinations and phrases containing: nouns, subject pronouns, verbs, articles, and adjectives. The goal is to progress to complete sentences in both declarative and interrogative form. All required information for each lesson will be specified from notes provided by the teacher on the chalkboard or through PowerPoint presentations. The exact content of each lesson will be practiced thoroughly by aural/oral drills followed by written in class and brief homework assignments.

## **STEM 6**

Computer Science 6 is a highly interactive and collaborative introduction to the field of computer science, as framed within the broader pursuit of solving problems. Students will practice using a problem-solving process to address a series of puzzles, challenges, and real world scenarios. Students will learn how to create and share the content on their own web pages. After deciding what content they want to share with the world, students will learn how to structure and style their pages using HTML and CSS. Students will also practice valuable programming skills such as debugging, using resources, and teamwork.

## **STEM 7**

Computer Science 7 students will build on their coding experience as they program animations, interactive art, and games in Game Lab. The unit starts off with simple shapes and builds up to more sophisticated sprite-based games, using the same programming concepts and the design process computer scientists use daily. In the final project, students will develop a personalized, interactive program.

## **STEM 8**

Computer Science 8 introduces the broader social impacts of computing. Through a series of design challenges, students will learn how to better understand the needs of others while developing a solution to a problem. Students will then develop, program, and test out an App prototype. Students will explore the role of hardware platforms in computing and how different sensors can provide more effective input and output than the traditional keyboard, mouse, and monitor. Using App Lab and Adafruit's Circuit Playground, students will develop programs that utilize the same hardware inputs and outputs that you see in the smart devices, looking at how a simple rough prototype can lead to a finished product.

## **Technology Education 6**

Technology Education 6 is a course designed to allow the student to explore a series of different technologies and processes. Students work individually, in small groups, and rotating teams that will alternate approximately every five class periods to complete assignments that include research and development, problem solving, structural design, engineering, reverse engineering, and aeronautics/aerospace. This class is required for all grade 6 students.

## **Technology Education 7**

Technology Education 7 is a course designed to allow the student to explore a series of different technologies and processes. Students work in groups of two, rotating teams approximately every five class periods to complete assignments that include research and development, problem solving, graphic communication, digital photography and editing, materials/manufacturing, and computer aided drafting and design (CADD). This class is required for all grade 7 girls.

## **Technology Education 8**

Technology Education 8 is a course designed to allow the student to explore a series of different technologies and processes. Emphasis will be on microprocessors/electronics applications, hydraulics/pneumatics, computer aided drafting and design (CADD), engineering, and reverse engineering. This class is required for all grade 8 boys.