



ROCHESTER  
COMMUNITY SCHOOLS

PRIDE IN EXCELLENCE

# 8TH GRADE COURSE CATALOG



2024-2025

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# OUR MISSION

To provide a quality education in a caring atmosphere for students to attain the necessary skills and knowledge to become lifelong learners and contribute to a diverse, interdependent, and changing world.



The teaching and learning at Rochester Community Schools is designed to develop innovative, self-directed learners who think critically, communicate effectively, and persevere to positively impact the world.

We challenge our learners through dynamic cultural experiences to be empowered global stewards and inspire them to take what they learn and have a positive impact on their community, country, and world.

All eighth-grade students are scheduled to take the following classes:

- Language Arts
- Mathematics
- Science
- Social Studies
- Electives

## **English Language Arts**

### **Language Arts 8 - #01008**

Language Arts 8 is based on the Common Core State Standards (CCSS) for eighth-grade Language Arts. Students read and analyze narrative and informational text for structure and the author's craft. Students apply comprehension and vocabulary skills in context. Using the writing process, students write narrative and expository pieces, including argumentative writing and research. In the context of writing, students correctly apply a variety of grammatical structures and correct spelling conventions. In large and small groups, students speak, listen, and respond to one another through class discussions and oral presentations.

### **Advanced Language Arts 8 - #01058**

This course includes the in-depth study of a wide variety of language skills, including speaking, thinking, writing, and literature at an advanced level. Based on the same CCSS that are addressed in Language Arts 8, the Advanced Language Arts 8 course is designed for students who are proficient writers and readers. Students read and analyze literature in depth and write essays based on their analyses. There is a summer reading requirement for this course. (When determining placement into Advanced Language Arts 8, families should consider a student's M-Step score, i-Ready score, and mastery of 7<sup>th</sup>-grade content.)



## Mathematics

### **Pre-Algebra - #04008**

Pre-Algebra is based on the eighth-grade Michigan Math Standards. Students solve multi-step equations and systems of equations. Students graph linear equations to model relationships between quantities. Students evaluate powers with integer exponents. Students discover and apply the Pythagorean theorem to solve problems. In their study of geometry, students investigate congruence and similarity. Students also find the volume of cylinders, cones, and spheres. While studying statistics, students investigate patterns of association in bivariate data.

### **Algebra I - #04164**

Students will build upon the concepts learned in Pre-Algebra and apply them to solving and graphing multi-step linear equations and functions. Students solve and graph linear inequalities as well as linear and non-linear systems using a variety of methods. Students will solve quadratic equations in multiple ways. Radical equations will be explored including their connection to geometry. Students will learn to display and analyze data with measures of center and variation.

**When determining placement into Algebra I, families should consider a student's m-step score, i-ready score, mastery of 8<sup>th</sup> grade content, and mathematical dispositions.**

## Science

### **Science 8 - #06008**

The RCS middle school science curriculum utilizes Mi-STAR and Modeling Instruction Pedagogy. This science curriculum is motivated by a vision for the future in which science is taught and learned as an integrated body of knowledge that can be applied to address societal issues. The dimensions of NGSS are sequenced across each year and between years to create a coherent progression that builds on students' prior knowledge and skills. Each bundle in the sequence is connected to a 21st-century theme that will serve as the basis for a Unit Challenge— a problem or issue that the students attempt to solve or address throughout the course of a unit. As students progress through the curriculum, they repeatedly use the disciplinary core ideas, science and engineering practices, and crosscutting concepts of the middle school grade band. The units build on one another in a coherent fashion, assuming prior knowledge from previous units. Units include solving problems dealing with astronomy, plate movement, climate/weather, climate change, and the quality of our local water systems.



## Social Studies

### United States History - #07008

This course introduces students to the history of the United States from Colonial times through Reconstruction. The course is divided chronologically into eras. Students learn to place major events on a timeline and to analyze their causes and effects. Using primary and secondary sources, they explore time and place in nineteenth-century America. They compare conflicting accounts of the past, both orally and in writing, and express informed judgments about significant events that shaped the nation. Using a variety of media, they compile, analyze, and present historical data. Within their historical study of nineteenth-century America, students deepen their understanding of major geographical themes and basic economic concepts. They also build their understanding of American government from an in-depth study of the United States Constitution and the evolution of the government it created during its first century.

## Elective Courses

**Eighth graders have two hours each day for elective classes. Each elective is identified as either a full-year or semester class. Students may choose either two year-long classes, four-semester classes, or a combination of a full-year class and two-semester classes.**

### Art 8 - #05508

Length: Semester

Creativity is an important part of this course, and originality and self-expression are emphasized. Drawing, as well as creating two-dimensional and three-dimensional artworks that reflect knowledge of color, form, and shape, are the basis of the projects for this course. Students critique their own work and the artwork of others.

### Band 8 - #05008

Length: Full Year This course applies what has been learned previously to produce appropriate characteristic tone in all registers with an effective embouchure. When appropriate, students use vibrato. Students perform using proper phrasing, dynamics, and style of articulation. Students listen to and adjust pitch automatically. Students complete a compositional activity with specified guidelines. Using a variety of genres, students perform, listen, describe, and read music. Students learn and use accurate vocabulary to critique their own performance and the performances of others. Students are evaluated on performances that take place during class, after school, and at the MSBOA Band Festival.

### Orchestra 8 (String Instruments) - #05228

Length: Full year

Eighth Grade Orchestra is an instrumental music class that builds from skills learned in Seventh Grade Orchestra. Seventh Grade Orchestra (or equivalent) is a pre-requisite for this course. While individual skills are still developed, ensemble skills are a focus of this course. Music skills, including tone production,

posture, bow hold, bowing, note and rhythm reading, musical terms, intonation, and the performer's role in an ensemble are further developed. Students will learn shifting techniques to perform in new positions. Students will play a varied repertoire of music. There are several evening or weekend performances throughout the year. All performances are required and graded. Special concert attire may be required.

### **Choir 8 - #05108**

Length: Full Year or Semester

This class is open to all eighth-grade students and is designed to develop vocal skills needed for group choral singing and performance. Students study proper vocal tone production, rhythmic accuracy, and melodic and rhythmic precision. A variety of choral literature is studied and performed, along with studies of music theory. Students participate in a variety of concerts.

### **Foods and Nutrition - #08008**

Length: Semester

In this course, students learn about food safety, kitchen safety, nutrition, food preparation techniques, etiquette, and careers in the field of food science. Students investigate the causes of food-borne illnesses and review safety practices. The Food Guide Pyramid is used as a foundation for the study of nutrients and nutritious food choices. Students learn and practice food preparation techniques. The importance of social skills and modern etiquette is emphasized. Students are introduced to careers related to the food and nutrition industry.

### **Introduction to Theater - #01509**

Length: Semester

This class introduces students to the skills and techniques used by actors. Beginning with charades, students explore how meaning is conveyed through both oral and body language. Students learn how to speak with clarity and proper enunciation. Students learn and practice voice projection and how to breathe more effectively through the diaphragm. Students explore how voice and intonation convey meaning by reading poems aloud, participating in storytelling, and creating simulations that promote characterization and mood. Students practice memorization techniques by memorizing short skits and presenting them to the class. The semester culminates with students presenting a one-act play.

### **Multimedia 8 - #08808**

Length: Semester

Students will identify various media formats and the importance of targeting an audience and delivering an intended message. Proper rules of online etiquette, ethics, and copyright law will be embedded into the curriculum. Students will utilize applications such as Google Workspace for Education and other web-based tools to work collaboratively to design and create a variety of multimedia presentations based on research topics of choice. Students will broaden their research strategies and skills while acquiring video, audio, and photography editing skills to enhance presentations. Students will be exposed to current presentation formats as they become available. Presentation formats may include slides, video, websites, podcasts or



podcasts or blogs with the option to utilize technology resources such as stop motion animation, interactive video and audio, and green screen technology in addition to the creation of printed materials.

### **Physical Education 8 - #03008**

Length: Semester

One-third of the course is devoted to health-related fitness activities. Students are assessed on strength, flexibility, and endurance. Students set fitness goals and monitor their progress throughout the semester. Students participate in selected activities for net/wall games, such as tennis and volleyball; target sports, such as archery and bowling; and invasion sports, such as soccer and basketball. Students develop skills and the attitude needed to live a physically active life. Students learn and apply the skills, strategies, and rules for different group and individual sports that promote physical health. Students realize the importance of improving their flexibility, strength, and endurance and how improvement in these areas improves performance in any sport.

### **Unified PE - #73009**

Length: Semester

This Physical Education course combines 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup>-grade students of all abilities to create an inclusive environment for students with and without disabilities. This class is intended to help students develop fitness and sports skills in a non-competitive setting. Students will participate in developmentally appropriate activities including lifetime skills and activities, physical fitness, and sports. Students will work together to increase competence and confidence in a variety of physical activities. Through ongoing leadership opportunities, members of this course will be empowered to help create a more inclusive and accepting school environment for all students.

### **STEM 8 - #08408**

Length: Semester

This STEM (Science, Technology, Engineering, and Math) course exposes students to the fundamentals of modern CAD (computer-aided design), physical computing, app development, mechanical engineering, and transportation through hands-on activities, technology-based problem-solving, demonstrations, and discussion. Using the engineering design process, students imagine, plan, create, test, and re-design solutions for given challenges such as constructing catapults, designing an aerodynamic CO<sub>2</sub> car, coding a physical prototype as well as other student-created/driven projects in order to build a deeper understanding of how STEM systems apply to their everyday lives.

### **World Language Level 1 (French #02314, German #02414, Spanish, #02814, Chinese #02614)**

Length: Full Year

Students learn to communicate in a variety of situations, such as listening, conversing, reading, writing, viewing, and presenting. Students use language to gain understanding of people and cultures.

*(Students taking a Level 1 World Language course receive one credit towards the high school World Language graduation requirement.)*



## **World Language Level 2 (French #02324, German #02424, Spanish, #02824, Chinese #02624)**

Length: Full Year

PREREQUISITE: Level 1

The Level 2 courses build upon the skills acquired in the Level 1 courses. Students learn to communicate in a variety of situations through listening, reading, writing, conversing, viewing, and presenting with increasing accuracy and complexity. Students use language to gain understanding of people and cultures.

*(Students taking a Level 2 World Language course receive one credit towards the high school World Language graduation requirement.)*