Nipher Middle School
Seventh Grade Course Descriptions
2025-2026

MATHEMATICS 7

Seventh grade math is a year-long journey where students will:

- develop understanding of and apply proportional relationships
- develop understanding of operations with rational numbers and working with expressions and linear equations
  solve problems involving scale drawings and informal geometric constructions including two and three dimensional shapes to solve problems involving area, surface area, and volume
- draw inferences about populations based on samples
  Together our learning community will strive to become problem solvers ready to take on real-world problems with accuracy and success.

ENGLISH LANGUAGE ARTS 7

Seventh Grade English Language Arts balances the practical elements of reading and writing with continued enjoyment of those two things. To maintain this enjoyment, students need reading material they choose and enjoy, regular writing practice about topics that interest them, and opportunities to work with others on meaningful tasks.

To progress in the practical elements, students must develop academic vocabulary, find and correct mistakes in the conventions of standard English, increase reading stamina, and develop their ideas by writing. Maintaining this balance helps all students grow as readers and writers.

There are four main topics:

1. Poetry
2. Short Stories
3. Dystopian fiction
4. Propaganda/Persuasion

SCIENCE 7

Seventh Grade Life Science investigates the diversity, complexity, and interconnectedness of life on Earth. In this course, students will first discuss the basic needs and characteristics of all organisms including cellular structures and functions. Students will compare similar processes between unicellular and multicellular organisms including reproduction, the release of chemical energy, and the maintenance of homeostasis. Students will learn the basics of inheritance during a genetics unit. Finally, students will investigate relationships between organisms as they interact in their ecosystems and compete for finite resources. The study of these ecosystems will also include the transfer of energy and recycling of matter. Throughout the course, students will be challenged to develop their scientific process skills including reasoning and critical thinking.

SOCIAL STUDIES 7

This course explores the history of global civilizations from the Classical Era to the Medieval Era, examining their rise and fall, cultural evolution, and technological advancements. Students will explore key themes such as the classical foundations of government, the growth of technology and trade, and increasing global interconnectedness. In each unit, students will evaluate a key topic and consider whether it can be considered progress. Through this process, they will develop critical thinking and communication skills while gaining a deeper understanding of how past events influence our world today.

WELLNESS 7

Wellness is a three-year comprehensive program in which students will participate in each grade level year they are at Nipher. Students will focus on healthful living practices, strong self-esteem and personal awareness, and building and maintaining a strong, healthy body through both class work and active participation in conditioning classes.

FULL YEAR ELECTIVES

BAND 7
7th Grade Band members must successfully complete 2 years of instrumental music study or meet director approval based on musical aptitude prior to enrollment. Students will develop skills that lead to intermediate levels of proficiency in technique on their instrument. Students will gain an understanding of music theory as it pertains to their instrument and continue to experience a variety of literature for the modern band. Members of the ensemble will have opportunities to perform solos and small ensemble literature as well as large ensemble selections to be performed at required concerts and festivals.

CHOIR 7(students may choose one semester or year-long)
In 7th Grade Choir, students will reinforce and further develop their singing skills and techniques. They will learn the process of sight-singing using Solfege, further develop their vocal range, adjust to their changing/changed voice and work on proper singing posture and breathing. The students will have opportunities to sing as a group on a regular basis and will have one or two formal evening performances per semester. This class can be taken all year if desired.

ORCHESTRA 7(min. 2-year experience)
Students must have at least one year of prior experience in the 6th-grade class with the completion of Essential Elements Book 2. Students will work on orchestral pieces two performances for 6th-8th grade, Festival of Strings at Kirkwood High School and Large Group Festival. Emphasis will be placed on advanced techniques such as shifting, theory, two-octave scales/arpeggios/thirds, music theory, and composer history. Students will have the opportunity to participate in the annual solo and small ensemble festival and receive feedback from a judge.

SOAR 7
This year-long course is offered to students who meet district criteria for the state gifted program. Students will complete activities and projects involving creativity, critical thinking, research, presentation skills, and problem solving. Once in the middle school program, students need not requalify each year.

SEMESTER EXPLORATORY COURSES

ART 7
Students in the seventh grade Art program will continue to expand and deepen their knowledge and understanding of the art elements and principles of design in light of art history and studio activities. Studio activities will include both two- dimensional and three-dimensional formats and will introduce students to a range of media. Students will embrace artistic practices such as keeping a sketchbook and building a digital portfolio of their artwork.

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DRAMA 7
This course builds upon and advances skills learned in the sixth grade. Dramatic literature is introduced, and more emphasis is placed on effective rehearsal techniques and character development. This class introduces students to a more intense study of movement, vocalization, acting areas and body positioning and helps students become more confident with stronger acting choices. Students develop higher-level thinking and performance skills while analyzing characters and text in scripted scene work as well as in improvisational exercises and games. Students are encouraged to help with a Nipher Players production.

ENGINEERING TECH 7: Design Modeling and Manufacturing
This course offers an in depth look at engineering careers, engineering design process and manufacturing techniques. Students will use a CAD modeling system to create three-dimensional (3D) models. Students will describe the design process and how it works, along with demonstrating the ability to measure accurately to solve engineering problems. Students will understand the purpose and importance of working in a team and evaluating criteria and constraints to solve technical problems through drawings and other forms of communication. After gaining knowledge of orthographic and isometric drawings, students will use various tools and materials to manufacture items from technical working drawings. *This is a prerequisite course to Engineering Tech II: Advanced Design and Architecture. Engineering Tech I will also be available to 8th grade students first semester who did not take Engineering Technology Design Modeling in 7th grade.

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES 7
This course introduces students to the diverse topics within Family and Consumer Sciences. Through hands-on activities, they will develop important life skills while exploring career opportunities in fields such as nutrition, culinary arts, fashion, interior design, child development, and financial literacy.

JOURNALISM 7
In this semester-long course, students build on their introductory knowledge of the world of journalism. Students will both learn and create in this class. Topics include journalism ethics, interviewing, photography, graphic design, and the basics of print and broadcast journalism. By the end of this class, students will have the necessary skills to jump right into the 8th grade Knightly News and yearbook courses.

MEDICAL DETECTIVES 7
In the Medical Detectives course, students play the role of real-life medical detectives as they collect and analyze medical data to diagnose disease. They solve medical mysteries by performing a brain dissection and conducting crime scene investigations. Students use tools such as the engineering design process, an engineering notebook and electrophoresis to solve a murder.

ROBOTICS 7
In robotics you will create and explore mechanical systems, energy transfer, and learning to code your machines to operate independently! We will be using the VEX robotics platform to design, build, and program real-world objects such as traffic lights, robotic arms, and race cars!

WOODWORKING 7
This semester course allows students to explore the area of woodworking and the processes used to transform raw materials into a finished project. Students will design and construct at least two woodworking projects throughout the course of the semester. An emphasis will be placed on how to safely use hand and power tools.

WORLD LANGUAGES 7
In the seventh grade, students will select one of the following languages: French, German, or Spanish. Students study basic sound systems, simple communicative functions (for example, expressing likes and dislikes) and simple grammatical structures. In addition, students explore cultural similarities and differences. Emphasis is on speaking skills, so daily participation is required. In 8th grade, students will be able to continue that language for an entire year and will serve as the equivalent of Level 1 World Language at Kirkwood High School.