

2022-2023

McMillan Magnet Center



8th Grade Course Directory



Monarchs get Ready to Roar!!!



McMillan Magnet Center Math, Technology and Engineering

McMillan Mission and Vision

The Mission of McMillan Magnet Center is to academically challenge students and to promote student ownership of learning in a safe, diverse, and respectful environment.

The Vision of McMillan Magnet Center is to:

- Collaborate with school, family, and community-based partners.
- Provide an innovative, project-based, cross-curricular school setting.
- Integrate components of Science, Technology, Engineering, Arts, and Math through Project Lead the Way (PLTW).

This directory is designed to help you in planning a program of study that will best meet your needs and interests. Parents, teachers, and counselors will help you select and make decisions regarding courses for your student schedule.

Your directory contains complete information about course requirements and materials needed, as well as descriptions of each course being offered at McMillan. Read and study the course offerings before registering. Course choices become commitments and it is difficult to make changes. Careful consideration now will help assure you of a program that satisfies your needs and interests.

The magnet center curriculum is designed to encourage exploration in a variety of subject areas. The curriculum at McMillan Magnet Center reflects the infusion of multicultural nonsexist educational material consistent with the philosophy adopted by the Board of Education.

We hope this directory will be an effective tool in selecting your plan of study. The courses you select in middle school are most important to your future goals and endeavors.

Dr. Monica Green
Principal

Mrs. Kim Langford
Assistant Principal

Mr. Curtis Weber
Assistant Principal

Mrs. Sarah Castanos
Dean of Students

Dr. Matthew Coffey
Dean of Students

Visit our website at <http://www.mcmillan.ops.org>

Program Planning Worksheets

Before registration, carefully review the program of study and course descriptions in this handbook and plan a program with your counselor and parents. The sequence of required courses has been outlined on the worksheet provided on this page. You will want to add the elective courses you choose.

The example below is what a schedule could look like at McMillan:

Period	A Day	Period	B Day
1-1 1-2	ELA <ul style="list-style-type: none"> • ELA 6 or Honors ELA 6 • ELA 7 or Honors ELA 7 ELA 8 or Honors ELA 8	1-1 1-2	Math <ul style="list-style-type: none"> • Math 6 or Advanced Math 6 • Math 7 or Advanced Math 7 • Math 8 or Honors Algebra 1-2 H Geometry 1-2 (possibly offered off site)
2-1 2-2	Science <ul style="list-style-type: none"> • Science 6 • Science 7 or Honors Science 7 • Science 8 or • Honors Physical Science 1-2 	2-1 2-2	Social Studies <ul style="list-style-type: none"> • Social Studies 6 • Social Studies 7 • Social Studies 8
3-1 3-2	Physical Education/Human Growth Development <ul style="list-style-type: none"> • PE 6 • PE 7 • PE 8 Intro to College & Careers 6,7,8	3-1 3-2	Chorus/Band/Orchestra <ul style="list-style-type: none"> • Yearlong every other day • If not in Chorus/Band/Orchestra, then semester or yearlong elective
4-1 4-2	Semester or Yearlong Elective	4-1 4-2	Semester or Yearlong Elective
Advisory	30 minutes every day	Advisory	30 minutes every day

ELECTIVES

Students select elective courses to fill their remaining schedule. They may choose one of these options: 1) full year electives, 2) four semester electives, or 3) a combination of full year electives and one semester electives.

EIGHTH GRADE ELECTIVE COURSE DESCRIPTIONS

Honors Special Project 8

Length: Semester

Teacher Recommendation

This course offers a wide variety of experiences that align with gifted and talented programming standards. Learning opportunities meet grade level objectives in problem-solving, critical thinking, creative thinking, inquiry, cultural proficiency, metacognition, and affective skills.

Spanish 1-2

Length: All Year

Teacher Recommendation

This course in World Languages at the first-year level stresses interpretive, presentational, and interpersonal communication abilities to develop survival skills in the target language. Students become aware of the personal and economic opportunities that knowing a second language will bring them and how that knowledge will enable them to function better both in the United States and globally. They also begin to develop an awareness and appreciation of the various cultures associated with that language as well as the impact these cultures have made on their own community, country, and world.

Middle School Service Learning

Length: One semester

This course is a hands-on study of the practice and intent of service learning, the integration of community service, and related academic study. Students will spend one semester actively developing, planning, implementing, and evaluating service-learning experience. Principles of civic engagement will be added to provide students with a well-rounded learning experience.

Art 8

Length: One semester

This course allows students to be innovative and reflect on their own experiences as many American artists have and do today. American artists were and are on the forefront of shaping America's identity through recording the human experience in innovative ways. Throughout this course, students will continue to develop their artistic voice and style and explore how they do and will play a part in society. Students will examine art and artists throughout American history focusing on America's diversity and influence. Aesthetic theories of Instrumentalism, Expressionism and Formalism will be studied as well.

NOTE: Enrollment in any music class requires mandatory participation in our concerts, which are held in the evening in December and in May in our auditorium. Additional performances may be scheduled.

Chorus 8

Length: One semester

Chorus 8 is available to eighth grade students who have special interests and abilities in choral singing. Choral music is introduced in two and three parts that include bass clef participation. Vocal emphasis is placed on the introduction of the male changing voice and greater extension of all voice ranges. Performance opportunities including the All-City Music Festival are an extension of the classroom experience.

Advanced Band 8**Length: All year****Teacher Recommendation****Materials Needed: Instrument**

This course is offered to eighth grade students with advanced abilities secured through several years of instrumental music participation. Music introduced includes technique studies and selected concert music with full instrumentation appropriate to the classes and ability. Membership is achieved by the recommendation of the instructor. Performance is included as an extension of the classroom activities.

Advanced Strings 8**Length: All year****Teacher Recommendation****Materials Needed: Instrument**

This course is offered to eighth grade students who have demonstrated advanced ability in playing a string instrument. Technique studies and selected concert music advance both technical and musical understandings. The instrumentation includes violin, viola, cello, and string bass. Membership is achieved by the recommendation of the instructor or successful completion of Intermediate Strings. Performance is included as an extension of the classroom activities outside of the school day.

Music Technology 1**Length: One Semester**

This course is designed for students interested in music and its related computer applications. No previous experience in computers or music is necessary. Students will explore electronic musical instruments, computer-assisted instructions, MIDI sequencing and music notation.

EIGHTH GRADE MAGNET ELECTIVE COURSE DESCRIPTIONS**Enrichment Math 1 and Enrichment Math 2****Length: One Semester each****Teacher Recommendation**

This course is designed to prepare 7th and 8th grade students for mathematics competitions. Offered 2nd semester, students will prepare for the MATHCOUNTS competition and a national on-line competition. The focus first semester is on problem solving and mathematical explorations. Students will work on material that supersedes any coursework available to middle school students. Students will be required to complete projects to earn credit for the course.

PLTW Medical Detectives**Length: One Semester**

Medical Detectives (MD) explores the biomedical sciences through hands-on projects and labs that require students to solve a variety of medical mysteries. Students investigate medical careers, vital signs, diagnosis, and treatment of diseases, as well as human body systems such as the nervous system. Genetic testing for hereditary diseases and DNA crime scene analysis put the students in the place of real-life medical detectives.

PLTW Introduction to Computer Science I**Length: One semester**

Designed to be the first computer science course for students who have never programmed before, Introduction to Computer Science 1 (ICS-1) is the starting point for the PLTW Computer Science program. Students work individually and in teams to create simple apps for mobile devices using MIT App Inventor®. Students explore the impact of computing in society and the application of computing across career paths and build skills and awareness in digital citizenship and cybersecurity. Students model, simulate, and analyze data about themselves and their interests. Pre-requisite: must have taken and passed PLTW CS APP Creators with a C or better.

PLTW Energy and the Environment**Length: One semester**

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.

PLTW Flight and Space**Length: One Semester**

The exciting world of aerospace comes alive through Flight and Space. Students explore the science behind aeronautics and use their knowledge to design, build, and test an airfoil. Custom-built simulation software allows students to experience space travel.

PLTW Green Architecture**Length: One Semester**

In a world of reduced resources and environmental changes, it is important to present the concept of “being green” to the next generation of designers and builders. In this unit, students are introduced to architectural plans, construction styles, alternative materials and processes, dimensioning, measuring and architectural sustainability. Students use a 3D architectural software program to create an environmentally friendly home using shipping containers. Pre-requisite: must have taken Introduction to Architecture

PLTW Automation & Robotics**Length: One semester**

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.

PLTW Design & Modeling**Length: One Semester**

Students discover the design process and develop an understanding of the influence of creativity and innovation in their lives. Students using freehand sketching techniques and descriptive geometry, learn how to sketch components of a design in different views and create three-dimensional computer models. Using design briefs or abstracts, students create physical models and documentation to solve real-world problems.

Course Placement Appeals

All Secondary Omaha Public Schools offer procedures for appealing course placement (i.e., AP, Honors, IB, etc.). Each building may have specific forms and deadlines; however, the following general procedures shall apply:

Level One: Counselor, Curriculum Specialist, Assistant Principal/Data, or Principal

A student or parent with a course placement appeal may first discuss the matter with the counselor, or building administrator involved, with the object of resolving the matter informally.

Level Two: Assistant Superintendent of Curriculum, Instruction and Assessment

If the course placement appeal is not resolved at Level One and the individual still wishes to pursue the appeal, he/she may formalize the appeal in writing addressed to the Assistant Superintendent of Curriculum, Instruction and Assessment at 3215 Cuming Street, Omaha, NE 68131.

Level Three: Superintendent

If the appeal is not resolved at Level Two and the individual still wishes to pursue the appeal, he/she may formalize the appeal to the superintendent of schools after receiving a written response from the Assistant Superintendent of Curriculum, Instruction and Assessment.

These steps shall be taken in a timely manner to accommodate the registration of courses for the school year in question.

Omaha Public Schools does not discriminate on the basis of race, color, national origin, religion, sex (including pregnancy), marital status, sexual orientation, disability, age, genetic information, gender identity, gender expression, citizenship status, veteran status, political affiliation or economic status in its programs, activities and employment and provides equal access to the Boy Scouts and other designated youth groups. The following individual has been designated to accept allegations regarding non-discrimination policies: Superintendent of Schools, 3215 Cuming Street, Omaha, NE 68131 (531-

299-9822). The following persons have been designated to handle inquiries regarding the non-discrimination policies: Director of Equity and Diversity (equityanddiversity@ops.org), 3215 Cuming St, Omaha, NE 68131 (531-299-0307).