



# McPherson Magnet School

## Math-Science-Technology (STEM)

333 S Prospect Street, Orange — 714-997-6384

McPherson is a STEM Magnet School focusing on science, technology, engineering and math. McPherson offers a unique, enriched, integrated curriculum, accompanied by a strong core of basic skills for all students. McPherson Magnet School, an OUSD K-8 Magnet public school, is open to all OUSD resident students, including those on employment related inter-district transfers, and is done through a lottery drawing.

All parents or guardians of students (K-8 for 2019-2020) that would like to enter McPherson's lottery draw must attend one orientation meeting on Tuesday, February 12, 2019, at 9:00am or 3:00pm, for the 2019/2020 school year entry.

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Learning is at the heart of our purpose for existence - **Knowledge \*Inspiration \* Discovery**

The McPherson Learning Community is committed to....

- ♦ Nurturing an academic community and honoring individual strengths
- ♦ Inquiry-based learning through critical thinking, questioning and discovery
- ♦ Integrating all curricular areas through the MAGNET FOCUS
- ♦ Creating relevant, high-quality products which extend beyond the walls of the classroom
- ♦ Mastery of identified essential concepts and skills for every child
- ♦ Meeting the needs of each child with systematic and timely intervention
- ♦ Global citizenship through understanding, compassion & respect
- ♦ Embracing project-based learning and integrated technology for K-8



### Examples of STEM Lessons at McPherson Magnet School

8th Grade students use Newton's Law in science class at McPherson Magnet to create roller coasters out of paper. Students receive points based on the length of time the marble stays in the coaster. Mrs. Conrad's amazing project-based learning.



McPherson Magnet 2nd graders coded a score-keeper to play a game that improved their math fact automaticity in their PLTW STEM Lab. It's the M in STEM!



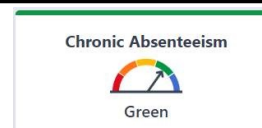
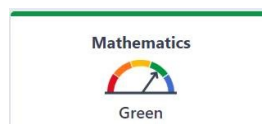
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For More Information, Please Call Our Registrar at 714-628-4327

- ⇒ **\$500,000 PROJECT LEAD THE WAY STEM LABS WITH ALL STUDENTS (K-8) HAVING WEEKLY STEM INSTRUCTION**
- ⇒ **INQUIRY-BASED/INTERACTIVE SCIENCE**
- ⇒ **FOSS SCIENCE KITS AT EVERY GRADE LEVEL**
- ⇒ **AWARD WINNING SCIENCE FAIRS**
- ⇒ **SCIENCE RELATED FIELD TRIPS AT EVERY GRADE LEVEL WITH OVERNIGHT SCIENCE CAMPS IN GRADES 6, 7 & 8**
- ⇒ **CTE COURSES (CAREER TECHNICAL EDUCATION)-COLLEGE CAREER READINESS**
- ⇒ **VEX & C-STEM ROBOTICS**
- ⇒ **FAMILY STEM NIGHT** → 
- ⇒ **1:1 TECHNOLOGY-(IPADS/CHROMEBOOKS IN CLASSROOMS, K-4)**
- ⇒ **ACCESS TO TECHNOLOGY THROUGH BYOD (BRING YOUR OWN DEVICE) IN GRADES 5-8**
- ⇒ **PRIVATE SCHOOL FEELING**
- ⇒ **EARTHLAB-HORTICULTURAL LESSONS FOR ELEMENTARY STUDENTS**
- ⇒ **SPANISH IN GRADES 7-8**
- ⇒ **GEOMETRY (INTEGRATED MATH II) OFFERED**
- ⇒ **FEMINEERS CLUB-6th-8th GRADE-AFTER SCHOOL ENGINEERING CLASS FOR GIRLS**
- ⇒ **NEW FITT PROGRAM FOR ADVANCED LEARNERS-GRADES 3-5; HONORS COURSES IN 6TH THRU 8TH GRADE MATH AND LANGUAGE ARTS**

Check out McPherson Magnet School's DATA on the California Dashboard. All important indicators are in "green" and "blue". The California School Dashboard provides parents and educators with meaningful information on school progress so they can participate in decisions to improve student learning.



## McPherson Magnet School is a Project Lead The Way School

**Elementary STEM:** All McPherson elementary students (K-5th) have the opportunity to visit the STEM lab with our



designated STEM specialist. The program empowers students to adopt a design-thinking mindset through compelling activities, projects, and problems that build upon each other and relate to the world around them. Example Modules Include: **Kinder: Structure and Function-Human Body**-Examine major organs within the body and investigate how the structure of each is related. **1<sup>st</sup> Grade: Animal Adaptations**-Students explore animal adaptations for protection, camouflage, food obtainment, and locomotion. Students learn what it means for an organism to be adapted to its environment and how different adaptations can be categorized. **2<sup>nd</sup> Grade: The Changing Earth**-Students explore how the surface of the Earth is always changing. They are introduced to different types of maps and explore how these maps convey different information about the world in which we live, including where water is found on Earth. **3<sup>rd</sup> Grade: Stability and Motion: Science of Flight**-Students learn about the forces involved in flight as well as Newton's Laws of Motion. **4<sup>th</sup> Grade: Energy Conversion**-Students identify the conversion of energy between forms. **5<sup>th</sup> Grade: Infection Detection**-Students explore transmission of infection, agents of disease, and mechanisms the body uses to stay healthy. Through a simulation, they compare communicable and non-communicable diseases.



**Middle School STEM:** McPherson's focus is Science, Technology, Engineering and Mathematics. Students take a year-long STEM course as part of their course requirements. **6<sup>th</sup> Grade students at McPherson Magnet complete a one year engineering course through the Project Lead the Way curriculum.**

**Design and Modeling:**

Students discover the design process and develop an understanding of the influence of creativity and innovation in their lives. **Automation and Robotics:** Students learn about the history and impact of automation and robotics as they explore mechanical systems, energy transfer, machine automation, and computer control systems. **7<sup>th</sup> Grade students at McPherson Magnet complete a one year computer science course through the Project Lead the Way curriculum.**

**App Creators:** This unit will expose students to computer science as a

means of computationally analyzing and developing solutions to authentic problems through mobile app development. **Computer Science**

**for Innovators and Makers:** Throughout the unit, students will learn about programming for the physical world by blending hardware

design and software development. **8<sup>th</sup> Grade students at McPherson Magnet complete a one year biomedical science course through the Project Lead the Way curriculum.**

**Medical Detectives:** Students play the role of real-life medical detectives as they analyze genetic

testing results to diagnose disease and study DNA evidence found at a "crime scene." **Green Architecture:** Students learn how to apply

green concepts to the fields of architecture and construction. **Flight and Space:** 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.



### STEM NEWSLETTER

QR Codes to view our STEM Newsletter developed by McPherson Magnet's STEM Specialist:

Fall 2018



Spring 2018



Fall 2017



### McPherson's FITT Program

FITT is a new program that McPherson Magnet will be implementing next year for 3rd - 5th grade. FITT is designed to challenge and accelerate our "GATE identified" and advanced students. The program utilizes differentiated instruction, hands-on learning, and enhanced practices. More importantly, it allows your child to remain at McPherson, opening opportunities for them to participate in our award-winning STEM programs while retaining your position in the lottery.

