



Program Description

Orville Wright Middle/Magnet - an iDesign School

Math, Science, Aerospace Magnet Center

I. Overview

The Orville Wright Math, Science, Aerospace Magnet Center serves sixth, seventh, and eighth grade students of the Los Angeles Unified School District, representing all ethnic backgrounds. We are located on the campus of Orville Wright Middle School. We focus on an inquiry-based approach to math, science, and the aerospace field, while integrating English and history. Sixth grade classes are cored and students take computers as their elective course, as technology plays a key role in our instructional program. We service students, who have varied educational needs including GATE,

general education, English Language Learners, and Special Education (Resource). For the 2008-09 school year we elected to become part of the iDesign Division within the Westchester Family of Schools. Our major community partner in iDesign is Loyola Marymount University.

Vision Statement

OWMS Math, Science, Aerospace Magnet offers our students a learning community where they will receive the necessary academic requirements to achieve a middle school diploma. Our Magnet master schedule will provide a core curriculum that is rigorous, with electives specializing in math, science, and aerospace. Our educational expectation is that all students will meet the necessary requirements to graduate and promote to high school. Our Magnet faculty will work collaboratively to address the achievement disparities which exist by utilizing research-based pedagogical strategies that effectively engage all students. Additionally, Magnet faculty will share best practices across the curriculum so as to enhance all content areas, with an emphasis on English Language Arts and Mathematics. As a result, our students receive a solid educational foundation, providing them with the necessary skills to be successful in high school and in life.

Mission Statement

OWMS Math, Science, Aerospace Magnet exists to provide our students with opportunities to achieve their maximum potential through student-centered, individualized instruction coupled with small group activities, projects, and enrichment experiences. Technology is infused throughout the curriculum, preparing our students to be competitive in the 21st century. A smaller learning community provides an opportunity for close student-staff communication, as well as careful student evaluation and assistance. We address the needs of the gifted child, high achieving and general education students, as well as students with learning disabilities (resource program).

Belief Statement

OWMS Math, Science, Aerospace Magnet faculty, staff, students, and parents acknowledge that our educational priorities are governed by the following beliefs:

- Our students can achieve proficient and advanced levels in English Language Arts
- Our students can achieve proficient and advanced levels in Mathematics
- Our faculty delivers instruction in a rigorous, engaging environment
- Our students will be successful academically, emotionally, and socially

- Our graduates will be prepared to succeed at the high school level

II. Educational Philosophy

Orville Wright Math, Science, Aerospace Magnet Center provides an academically oriented program in a small school environment in which students of ethnically diverse backgrounds can grow emotionally, socially, and intellectually. In order to remain competitive with our expanding global community, our Magnet Center provides an opportunity to learn and thrive in a community where students are challenged to think critically and actively engage in their learning. The Magnet student is assisted in achieving his/her maximum potential through child-centered, differentiated instruction coupled with small group activities and enrichment experiences. Selective enrollment provides an opportunity for close student-staff communication and careful student evaluation and assistance.

III. Differentiated Objectives of the Program

Students of Orville Wright's Math, Science, Aerospace Magnet Center are expected to perform at "Proficient" or "Advanced" levels on the California Standards Test. Additionally, our staff also focuses on these additional objectives, relative to our specialty areas:

- To emphasize inquiry and scientific methodology
- To develop research and study skills
- To demonstrate competence in math and science
- To prepare students for advanced high school courses in math and science
- To provide access to knowledge of careers in math, science, and aerospace
- To provide enrichment materials and experiences which enable students to understand the relevance of subject matter
- To demonstrate competence in the use of word processing, spreadsheet, graphing, presentation, digital editing, and Internet software

These objectives are expected to be met at each grade level for three years.

IV. Expectations of Student Performance

Successful students at Wright Math, Science, Aerospace Magnet Center are those individuals who are academically oriented and able to achieve his/her maximum potential through child-centered, individualized instruction coupled with inquiry-based group activities/projects, and enrichment experiences.

Upon graduation, our students will be:

- “Proficient” or “Advanced” in English Language Arts
- “Proficient” or “Advanced” in Mathematics and Science
- Competent in research skills, inquiry-based learning, and scientific methodology
- Aware of career opportunities in math, science, and aerospace
- Clear on the relevance of math, science, and aerospace to the world in which they live
- Competent in the use of basic computer programs and Internet software

V. Multicultural Activities/Curriculum

Our advanced drama class performs each semester, and all students are able to experience a variety of cultural productions such as Shakespearian plays, the history of flight, student-generated pieces, and ethnic heritage month productions. Students are also able to experience a traveling cultural museum, put on each year in our school’s library. The presenter shares various items from around the world and students are actively engaged as they play musical instruments or touch various articles of foreign clothing.

During the 2008-09 school year, selected staff including the Magnet Coordinator and our 8th grade math teacher, were chosen to attend a Culturally Relevant and Responsive Teaching workshop. Several strategies that have been shared thus far included Call and Response, Musical Shares, the Shabooya Roll Call, Personal Thesaurus, Fade In, Fade Out, and Jumping In. These strategies have shed light on the importance of meeting students where they are, lowering the affective filter, and encouraging students to actively engage in their learning in a non-threatening and participatory environment.

VI. Special Curriculum

One of the unique experiences in our program is the flight simulation elective. Taught in a lecture/laboratory format, students are able to gain the math, science, and aerospace concepts twice a week, and able to directly apply their knowledge on their flight simulation machines three times a week. Two flight simulation labs are housed on the campus, and students move through different competency levels. Once they have finished the introductory course, students are able to move on to the advanced course. As the program expands, plans are being made to incorporate a building class, where students can gain fundamental knowledge of how an airplane works. Due to the overwhelming success of our students, some of them have actually flown Cessnas along with the help of certified pilots.

VII. Special Enrichment Activities

Along with Loyola Marymount University, we currently have relationships with LAX Airport, LAX Coastal Chamber of Commerce, and Northrop Grumman. Students have the opportunity to apply for the LAX ACE (Airport Career Exploration) Academy, which allows students the opportunity to learn about different careers within the airline industry. Our flight simulation students were able to go to the airport and got first hand experience with careers such as the coast guard, fire department, and transportation security. One group even got to board the Airbus! Guiding our students to make real world connections is a critical component of our program.

Guest speakers from Northrop Grumman visit our campus every February during Engineers Week, and science teachers are able to sign up their classes to learn about engineering careers. Presenters help to connect the relevance of math, science, and airport curricula to the field of engineering. Our MESA (Mathematics, Engineering, Science Achievement) program services our GATE population, and students have previously participated in various competitions, demonstrating their expertise through team-based enrichment activities.

In October of 2008, our entire school hosted the first annual “Youth Summit,” a school-wide career experience in which students pre-selected career choices and discovered the link between their academics and the real world. Students were especially thrilled with a shark specialist from the Aquarium of the Pacific; she brought shark jaws for students to experience!

Learning for Life, sponsored by the Boy Scouts of America, has also provided guest speakers on an annual basis to introduce students to various career opportunities.

For those students who are in need of additional support socially and emotionally, Vista Del Mar and Airport Marina Counseling offer free mental health services to our students. In the past, we have had “Our House” involved on our campus to help with Grief Support Groups.

VIII. Parent Involvement

Orville Wright Math, Science, Magnet Center is committed to strong parent and community involvement. Our PTA and Booster clubs are highly involved with our program. Each year, we work collaboratively to recruit students in the community for our Magnet program. They sponsor such activities as Red Ribbon Week (anti-drug campaign), Run for Wright (fundraiser), the Book Faire, and luncheons for our staff. Many of our parents are serving on the School Site Council. In June of 2005, they sponsored a “What’s Right at Wright” event, so parents and community members could learn about all of the wonderful opportunities available at our school. During this same year in August, they helped to institute our first “Camp Wright Way,” where incoming 6th grade students came with their parents to learn about the school, allay fears, and help them to become acclimated to the middle school

environment. These activities were very engaging for both students and parents. We also get excellent parental participation for Back To School Nights, Open House, Math and Literacy Nights, Honor Roll Assemblies, and Wright Awards Night.