

Howell L. Watkins Middle School



MEDICAL SCIENCES ACADEMY

MATH, SCIENCE, & ROBOTICS ACADEMY

YOUR FUTURE STARTS HERE

Math, Science & Robotics Academy

Robotics Topics and Activities

LEGO Mindstorms Curriculum(6th-7th Grade):

By combining the power of the LEGO building system with the LEGO MINDSTORMS Education technology, teams of students will design, build, program, and test robots. Working together on guided and open-ended engineering projects, team members will develop creativity and problem-solving skills along with other important mathematics and science knowledge.

The VEX Curriculum (8th Grade) is designed to provide extensive material to engage and catalyze STEM (Science, Technology, Engineering and Mathematics) learning for students using the VEX robotics system in the classrooms. Units are designed as science-like labs where students apply investigative procedures to find the answers to questions that roboticist need to have answered in many robotic projects.



Use of the Scientific Method:

- Develop a hypothesis
- Test an experiment
- Collect data
- Record data
- Display experiment results
- Verbally present information to Judges
- Work collaboratively with group members



Robotics Teams

Students will compete with local area schools and participate in the annual state conference.

What do we get out of Robotics?

- Collaboration and cooperation skills
- Leadership skills
- Effective informational writing and speaking skills
- Organization skills
- Advanced mathematical courses
- Computer programming
- Building a functional robot

Mechanical Engineering

This includes:

- Combining multiple simple machines to create a compound machine
- As a member of the robotics team, students will develop and design robots for competition.



H.L. Watkins Middle School will be teaching basic principles of Physical Science, Math, and Engineering through the construction of robots. This fosters well-rounded life capabilities including self-confidence, communication, and leadership.

Medical Sciences Academy

The H.L. Watkins' Medical Science Academy is excited to offer an intensive three-year high school preparatory program emphasizing science, mathematics, and communication skills. Our program prepares students to enter a high school medical magnet program or related program of study.

This program offers a rigorous, skill based curriculum designed to facilitate student awareness of medical and allied health professions. Our courses teach job specific skills in preparation for future medical career opportunities.



Course of Study

- Curriculum provides the exploration of various medical specialties.
- Specific areas of study include:
 - experimental research
 - anatomy
 - physiology
 - nutrition
- Learning and discovery will be facilitated through class instruction, internet research and scientific labs concentrating on problem solving and critical thinking. The Grade 8 Medical Science Course will require a supervised clinical rotation at a medical facility.



Student Mentoring and Program Assistance provided by:
T. Leroy Jefferson Medical Society

Medical Science Academy Courses

Grade 6

Orientation to Health Occupations:

This is the first course in an accelerated two-year sequence which covers advanced concepts of life, anatomy and occupations in health care. It is a prerequisite to the Medical Science Honors course.

Grade 7

Exploration of Health Occupations:

This is the second course in an accelerated two-year sequence which covers advanced concepts of life, anatomy, laboratory dissection and physical sciences. The content of this class prepares students for the Integrated Science Honors Course. Laboratory activities will reinforce basic science skills, such as inquiry, measurement, safety procedures and appropriate use of laboratory equipment.



Grade 8

Medical Skills and Service:

This course is a high school elective credit class. It provides students with opportunity to investigate the theories and ideas associated with biology and health care. This course will also include investigations of selected topics, such as, use of scientific method and measurement, use of laboratory apparatuses and safety procedures.

Howell L. Watkins Middle School

Developing Future Science, Engineering and Medical Leaders



To Learn More About Your Future at
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