

Science

Engineering

Technology

Math

### CURRICULUM UNITS

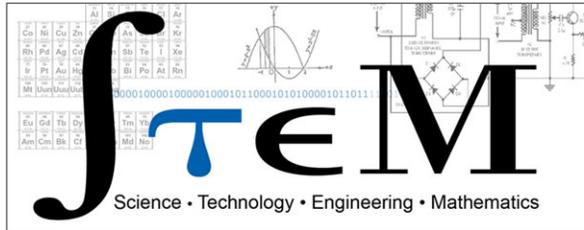
Some curriculum units will be constructed around the Design and Discovery Curriculum which is an academic enrichment curriculum that engages students in hands-on engineering and design activities that enhance knowledge, and problem solving skills in the areas of science and engineering. Students in grades 5-8 will be using simple machines as their focus of study. Every grade will be building complex machines using simple machines that will solve an everyday problem. Such as, design a machine to crush and recycle an empty soft drink can or design a complex machine that follows in the footsteps of a Rube Goldberg, where the machine makes a simple task, like mailing a letter, and makes it very complex. Each grade will use the simple machines to learn the curriculum suited to their grade level. Fifth grade will learn the types of simple machines and they make work easier. Sixth, seventh and eighth grade will use the simple machines to investigate forces, motion and Newton's 3 laws of motion.

### LIBRARY MEDIA CENTER

The library media center will be available for all students who are enrolled in the STEM Summer Learning Academy. Students may visit the media center and check out books during the hours of 8:00 A.M and 12:00 Noon.

### NEWCOMERS: 5 - 8

In the appropriate group, at the level of difficulty consistent with his/her ability, the Newcomer student will practice, develop and reinforce the traditional language acquisition skills of listening, speaking, reading and writing in English. These students will be exposed to the core curriculum in science, social studies and math. This class is designed as a summer transition class to accelerate the process of movement into the regular classroom setting.



### STEM SUMMER LEARNING ACADEMY

The Dodge City Middle School STEM Summer Learning Academy will place a large emphasis on not just STEM learning, but technology in particular. Students will be immersed in a technology rich environment including the utilization of computers, creating many opportunities for students to utilize technology for learning.

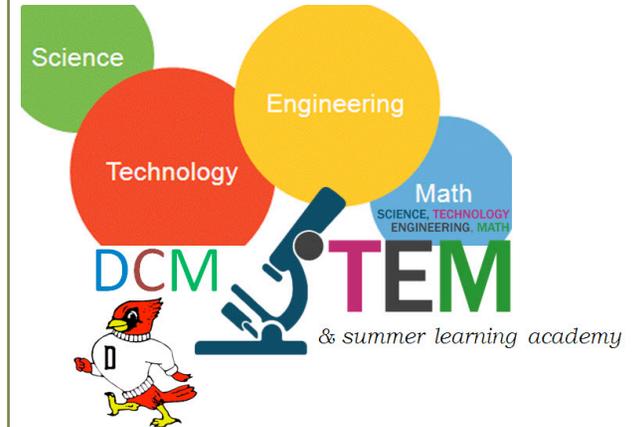
The STEM Summer Learning Academy will apply a mix of integrated studies that include mathematics and engineering, along with science and technology. The goal is not only to address literacy in English Language Arts but to prepare students for higher education by exploring design, integrated problem solving, teamwork and thought leadership.

The STEM Summer Learning Academy is designed to offer project-based learning experiences to underachieving students in the areas of science, technology, engineering and mathematics along with a language development lab. The academy will target rising 5th through 8th grade students.

**DODGE CITY MIDDLE SCHOOL**  
 2000 6TH AVENUE DODGE CITY,  
 KANSAS 67801 TEL: 620-227-1610

# STEM

## DODGE CITY MIDDLE SCHOOL



### SUMMER ACADEMY

Dates: Monday, June 3rd - Thursday, June 27th

Days: Monday - Thursday

Number of School Days: 16

School Day: 8:00 A.M. - 12:00 P.M.

Place: Dodge City Middle School

The goal is not only to address literacy in English Language Arts but to prepare students for higher education by exploring design, integrated problem solving, teamwork and thought leadership.

## USE OF TECHNOLOGY

One of the STEM element program elements is to help students with learning how to use technology to enhance their learning. Each student enrolled in the STEM Summer Learning Academy will be provided a mini laptop for use in their classes. The mini laptop will be checked out at the beginning of the day and checked back in at the end of the day. Each student and their parent will be required to sign a user agreement prior to receiving their computer.

## PERFORMANCE EXPECTATIONS

High expectations for academic achievement are expected during the STEM Summer Learning Academy. A student must make a 70% overall average grade in their three courses of study to be considered as passing. One assessment will be given each week in each course of study and at least one daily grade will be taken by individual instructors. Units of study and assessments will be based on Common Core standards.

## READING WRITING LAB

The Reading and Writing Lab is for the student who needs improvement in reading and writing and has experienced difficulty in these subjects during the regular school year. The lab is designed to give supportive instruction based on the student's specific needs and strengths while maintaining already achieved progress and to continue growth.

The lab is structured to emphasize: the student's ability to construct, extend, and examine meaning; word attack skills; comprehension using the four stances; shared reading, guided reading and independent reading; the use of prior knowledge; the purposes of reading/writing; and strategies for before, during, and after reading/writing.

## STEM CAREER AWARENESS

Students are making choices in middle school that will impact their desire and ability to pursue STEM careers. One element of the STEM Summer Learning Academy will be to provide time for middle school students to explore accurate information about STEM (Science, Technology, Engineering, Mathematics) careers enabling them to make more knowledgeable choices about courses of study and career paths.

# SUMMER EXPECTATIONS

**GOALS:** The STEM Summer Learning Academy will address the needs of students who have fallen behind academically and/or are not meeting required proficiencies, usually because they need more individual assistance and instructional support. Students presently in grades five through eight will be enrolled in courses designed to meet their academic needs for applied skill development in content areas necessary for advancement to their next grade level.

The STEM Summer Learning Academy will provide students who did not successfully meet the promotion requirements an opportunity to earn recovery credit for failed classes and prevent same year placement or retention. Receiving additional instruction during the summer will enable students to make further gains in the applied academic. Students who make these gains during the summer are more likely to be successful during the school year on Common Core district assessments and on class material.

## STUDENT GUIDELINES

**TARDIES:** Tardies will be made up double after 12:00 P.M. (Example: for 5 minute tardy, 10 minutes will be made up.) Minimum make-up time for tardies is 15 minutes. (Three tardies = 1 absence) Parents will be contacted for any student who has more than one tardy.

**ABSENCES:** To successfully complete the mandatory summer school program students must be in attendance 98% of the summer session and make 70% or higher on the mid-term and final assessments. (Teacher recommendation will also be considered for successful completion of the program.) A mid-term report will be sent home on June 14, 2013 and a final report will be mailed home on June 28, 2013. The final report

will make recommendations on next year's placement. The amount of times missed must be made up double after 12:00 P.M. if absent for one session, the student will make up four (4) hours, etc.

**NONCOOPERATIVE OR INAPPROPRIATE BEHAVIOR:** Parents will be called to pick up student immediately.

**ACKNOWLEDGEMENT OF UNDERSTANDING:** Infractions that could lead to loss of summer school privileges and being withdrawn from the Summer Learning Academy

- Having more than 3 absences
- Having more than 6 tardies
- Possession or use of illegal substances
- Possession or use of tobacco
- Being in a fight
- Found stealing or cheating Being truant
- Being uncooperative Abusive language
- Disruptive behavior

The mission of the STEM Summer Learning Academy is to allow students to experience academic success, thereby building their self-esteem and confidence.

