

# Walnut Valley Institute of S.T.E.A.M. and Humanities

Offered by Dedicated to Learning at Chaparral Middle School

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Principal

## **Summer Science**

This class emphasizes the FUN of science! We will cover topics related to biology, physics, chemistry, as well as other areas. Want to build roller coasters? Fly and keep airplanes you build yourself? Grow and take home plants in mini-terrariums, and much more? This is the class for you! This class will emphasize hands on and computer-based activities. All topics conform to Common Core concepts and practices that are now being developed and implemented throughout the Walnut Valley Unified School District, as well as the Next Generation Science Standards. **PERIOD 1 ONLY**

## **Summer Science, Technology and Engineering (STEM) Academy**

Are you ready for the 21st century and the Next Generation Science Standards? Don't sit home this summer when you can be designing, building, thinking critically and computing! The SSTE Academy will engage students in hands-on learning in the sciences while they explore, discover, build and design. One-to-one computing and inquiry based investigations will bring content to life and address real world issues. Rocket building, coding, chemical reactions, web design and more will be presented in a fun, engaging environment. Sign up today; spaces are limited! **PERIODS 1, 2 AND 3**

## **Introduction to Human Anatomy and Physiology**

A broad overview of the structures and their function that comprise the eleven body systems. Each week will engage the students in an investigation, with supporting interactive activities, of one of the six age-appropriate systems: Skeletal, Muscular, Central Nervous, Circulatory, Respiratory and Digestive systems. Medical Terminology will also be our introduced. \*The human reproductive system will not be included in this course. **PERIODS 2 AND 3 ONLY**

## **Robotics**

In this exciting, hands on course, students are introduced to robotics concepts, and will actively build robots with the LEGO Mindstorms EV3 hardware. Additionally, they will learn programming using the LEGO Mindstorms software. As they build and program their robots to accomplish specific tasks, they will be learning valuable 21<sup>st</sup> century skills that will prepare them for the rigors of the future. Don't miss out on this wonderful opportunity for your student to experience STEM in an innovative, active way! **PERIODS 1 AND 2 ONLY**

## **Introduction to App Building**

There is nothing more fun or exciting than building your own mobile app that you can use and share with friends! Join us to learn the basics of software development as well as mobile app skills, and be on the way to becoming a next generation software engineer! No previous coding experience is required. **PERIODS 1 AND 2 ONLY**

## **Basketball Boot Camp**

In Basketball Boot Camp, players will work on enhancing their skills in various aspects of the game of basketball. Areas of concentration include:

- ball handling (one-ball and two-ball dribbling)
- shooting form
- attacking the basket
- defense
- conditioning

We will also practice the skills that we are developing in short scrimmages at the end of each session. The goal of Basketball Boot Camp is to not only develop the skills of young ball players, but also to help players to learn to work as part of a team as well as to have more confidence. **PERIOD 2 ONLY**

*It is recommended each player bring a basketball to each session, if possible.*

### **Intro to Mock Trial and Analytical Reasoning**

Have ever seen the TV shows CSI or Law & Order? Have you ever played the game Clue? Do you enjoy putting together pieces of information and then solving a complex puzzle and problem? If you answered YES to 1 or more of these questions, then this is right summer school class for you! Mock Trial is actually an academic club and team here Chaparral. We competed in our inaugural competition in the fall of 2016 at the LA County Mock Trial Competition. The competition is a simulation of a criminal case, in which students portray each of the principals in the cast of courtroom characters (ex. Prosecution attorneys, Defense attorneys, witnesses, bailiff, and court clerk). The prosecution and the defense teams performed well and had a blast too! Students will study a hypothetical case, conduct legal research, and prepare for a mock trial by the end of the term. Students will not only acquire a working knowledge of our judicial system but will also develop their analytical abilities, written communication skills, and public speaking skills. **PERIOD 1 ONLY**

### **Common Core Language Arts: Argumentative and Narrative Writing**

This course will focus on argumentative and narrative writing based on Common Core Standards. Students will read increasingly rigorous informational texts, fictional narratives, documents, and literature and write paragraphs or essays using evidence found in the passages closely read. Making annotations in the text will also be practiced. In addition, students will peer-edit and learn different strategies about revising one's writing. **PERIODS 1 AND 2 ONLY**

### **"Young Entrepreneur" Leadership Program**

This class is designed to prepare those students who are participating in the Leadership class at CMS OR those who may be interested in the skills necessary to become innovative leaders in the future. Do you want to use what you learned in Common Core in a real life project? Do you want to explore what you do best and how you can do more of it? This program uses projects that are aligned with Common Core standards and character strengths assessment into the whole process to prep students to not only use what they learn in class in the "real world" setting, but also master the leadership skills necessary to lead and succeed in future! Join us to experience this transformational journey and be the next young entrepreneur and leader! **PERIOD 1 ONLY**

### **Common Core Math 6 Preview**

Course Description: This course is designed for students who will be enrolled in Common Core Math 6 in the upcoming school year. In this course we will review a few topics from the previous school year to ensure that students have a strong foundation in

math as well as focus on many key topics that will be introduced in the coming school year. Some of the topics to be covered include:

- Ratios and Proportional Relationships
- Multiply and Divide Fractions by Fractions
- Find the Greatest Common Factor and Least Common Multiple
- Solve Equations and Inequalities
- Real-world Problems involving Area, Surface Area, and Volume

*Upon successful completion of this course, Chaparral students will be afforded the opportunity to retake their spring placement exam if desired.* PERIODS 1 AND 3 ONLY

### **Common Core Math 7 Preview**

Students who take this class will be more prepared for the rigors of Common Core Math 7 next year. We will use technology, as well as, traditional methods to practice and become successful in the following areas, which include the common core standards for Math 7:

- Understanding and solving problems with integers
- Working with rational numbers
- Solving equations and inequalities
- Setting up ratios and proportional problems PERIOD 2 ONLY

***This class is for students going into Common Core Math 7 in the 2020-2021 school year.** Upon successful completion of this course, Chaparral students will be afforded the opportunity to retake their spring placement exam if desired.*

### **Pre-Algebra Acceleration Academy (Common Core Math 7 Accelerated);**

Students who take this class will be more prepared for the rigors of Common Core Math 7 and Common Accelerated next year. We will use technology, as well as, traditional methods to practice and become successful in the following areas, which include the common core standards for Math 7 Accelerated:

- Understanding and solving problems with integers
- Working with rational numbers
- Solving equations and inequalities
- Setting up ratios and proportional problems
- Evaluating and using exponents PERIOD 2 ONLY

***This class is for students going into Common Core Math 7 Accelerated in the 2020-2021 school year.** Upon successful completion of this course, Chaparral students will be afforded the opportunity to retake their spring placement exam if desired.*

### **AAA, Algebra Acceleration Academy (Algebra 1)**

Students who take this class will be more prepared for the rigors of Algebra I next year. We will use technology, as well as, traditional methods to practice and become successful in the following areas, which include the common core standards for Algebra:

- Solving and graphing linear equations
- Solving and graphing linear inequalities
- Understanding Functions
- Working with Exponents

***This class is for students (both 7th and 8th graders) who will be going into Algebra I in the 2020-2021 school year.** Upon successful completion of this course, Chaparral*

*students will be afforded the opportunity to retake their spring placement exam if desired.*

**PERIODS 1 AND 3 ONLY**

### **Geometry Preview (“Sneak Peek”)**

Course Description: This course is designed to prepare students for Geometry. Geometry is a rigorous high school course that is vital for success in mathematics. In this course we will focus on many key topics that be introduced in the coming school year. Some of the topics to be covered include:

- Geometric Vocabulary
- Deductive Reasoning and Proofs
- Angle Relationships in Parallel and Perpendicular Lines
- Congruence and Similarity of Triangles and other Polygons

*Prerequisite: Algebra I.* **PERIODS 1 AND 2 ONLY**

### **Introduction to Competition Mathematics**

This class will serve as a student's first introduction to competition mathematics. You will be introduced to problems similar to those our math team might see at a MATHCOUNTS competition. Sign up if you want to learn math not taught in the standard classroom, meet other students excited about math, and take part in mock competitions! Some of the topics introduced include algebra, counting principles, probability, number theory, and geometry. This class is designed for students w like math and have a strong foundation in pre-algebra, accelerated math 6, or accelerated math 7.

**PERIOD 2 ONLY**