



Vista Murrieta High School



Dear Bronco Parents/Guardians and Students,

I would like to take this opportunity to welcome you to the 2015-2016 academic year. The faculty and staff are excited to get the year under way and I am ready to teach the students about the Earth and its many wonders. This is Earth Science where volcanoes erupt and earthquakes tremble and I, Mr. Ryan Heise will be your guide.

I graduated from California State Polytechnic University, Pomona and obtained my teaching credential at California State University, Long Beach. I am a 3-sport coach in golf, soccer, and baseball. When I'm not spending time with my wife, beautiful 10 year-old daughter and 8 and 5 year-old sons, you can find me out on one of Southern California's golf courses.

We are embarking on a transition stage from the old set of California State Standards to the Next Generation Science Standards. This transition will be a multi-year process. We will be doing similar things in terms of lab activities and projects. We will be adding more project-based assignments and performance-based assessments to make the class more real-world and relevant. The supplies needed every day are: 1 three ring binder, a ream of college rule lined paper, pens and pencils. You will need to have these items by next Friday. If this is a problem please contact me.

Parents/Guardians, you can contact me at school (951) 894-5750 ext. 6735. As I stated before I coach after school from August through May so during this time it is tough to get a hold of me. You can also e-mail me at rheise@murrieta.k12.ca.us. This is the best way to reach me.

Along with the district and school rules I have three simple rules to follow during class. One, **be respectful**. This includes you, others, and your classroom. Two, **be responsible**. This means, be in your seat before the passing bell rings, bring all materials to class, and turn in all your assignments on time. This is your education, I want you to succeed. Three, **be honest**.

We will be using our Haiku LMS, which is a web-based learning management system. Many assignments will be done and submitted through this website <http://mvusdhaikulearning.com>. Students that don't have an account can establish one in class. Parents can also establish an account to keep informed on what we are doing. This class will have the occasional homework assignment. All assignments are posted on my Haiku site under the Calendar Link. The big assignments each unit will consist of a Unit Assessment and a Unit Packet. The Unit Packet will consist of all class work during that unit to be used as a study material for the Unit Assessment and to be turned in the day of the assessment. There will be multiple lab activities and projects with presentations. If parents or students would like to receive reminders and updates throughout the year you can text @mrheis to (571) 252-3493. This will sign you up and you will receive all of my reminders via text.

The grading for all work and the semester will be:	100	-	90%	A
	89	-	80%	B
	79	-	70%	C
	69	-	60%	D
	59 and below			F

Earth Science Curriculum Outline

1st Semester

Unit 1 (August, about 2 weeks)

Skills Unit

Will consist of learning the skills needed to successfully complete the class such as graphing, web-based research, citing, maps, mathematics, measuring, dimensional analysis (converting from one unit to another), and **density**.

Unit 2 (September-October about 6 weeks)

Space Systems

Students who demonstrate understanding can:

HS-ESS1-1. Develop a model based on evidence to illustrate the life span of the sun and the role of nuclear fusion in the sun's core to release energy in the form of radiation.

HS-ESS1-2. Construct an explanation of the Big Bang theory based on astronomical evidence of light spectra, motion of distant galaxies, and composition of matter in the universe

HS-ESS1-3. Communicate scientific ideas about the way stars, over their life cycle, produce elements.

HS-ESS1-4. Use mathematical or computational representations to predict the motion of orbiting objects in the solar system.

Unit 3 (October-December about 6 weeks)

History of the Earth

HS-ESS1-5. Evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks. [

HS-ESS1-6. Apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of Earth's formation and early history.

HS-ESS2-1. Develop a model to illustrate how Earth's internal and surface processes operate at different spatial and temporal scales to form continental and ocean-floor features.

2nd Semester

Unit 4 (January-February, about 7 weeks)

The Earth's Cycles

HS-ESS2-2. Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems.

HS-ESS2-3. Develop a model based on evidence of Earth's interior to describe the cycling of matter by thermal convection.

HS-ESS2-5. Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.

HS-ESS2-6. Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.

HS-ESS2-7. Construct an argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth.

Unit 5 (March-April, about 4 weeks)

Weather and Climate

HS-ESS2-4. Use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate

HS-ESS3-5. Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems

Unit 6 (April-June, about 6 weeks)

Human Sustainability

HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.

HS-ESS3-2. Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.

HS-ESS3-3. Create a computational simulation to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity. [

HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

HS-ESS3-6. Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.

Please Print this page and bring this back signed next class or parents a simple email saying you read the letter will suffice.

Students I look forward to seeing you everyday in class and parents/guardians thank you for supporting and encouraging your children throughout the year.

Please cut this part off and bring back to class.

This certifies that both parent/guardian and student read and understood the rules and procedures used in this classroom.

Student Name (Print neatly)_____

Student Signature_____ Date_____

Parent/Guardian Signature_____ Date_____