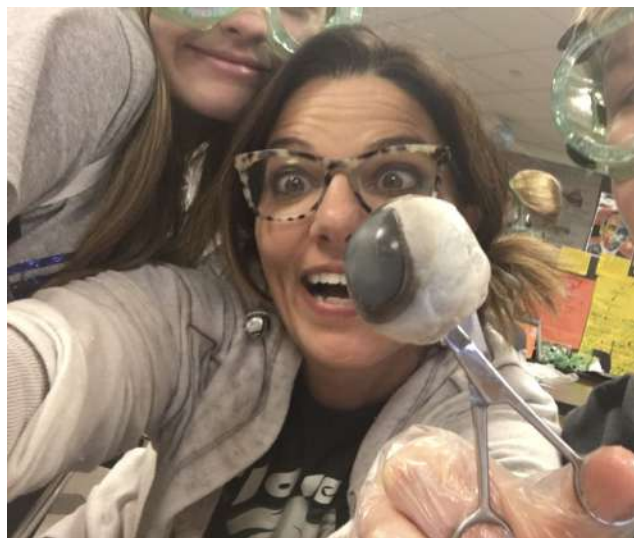


# WELCOME TO 8TH GRADE



***I am so excited about the upcoming school year! There is nowhere that I'd rather be than in the classroom! I've been teaching for 13 years, am originally from Cleveland, Ohio and I have my own youtube channel!***

***Yes, it's a cow eye***



[Tour my classroom here!](#)

**In addition to the supplies for 8th grade science, each student needs 5 folders that have 3 prongs.**



***Students will not be using lockers this year and it will be easier to carry one small folder for each of our 5 units this year.***



***Clover Middle School 2020-2021***

***8<sup>th</sup> Grade Science Syllabus***

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***Course Description and Objectives: This course, Science 8, builds upon the experiences in the physical and Earth sciences introduced to students in upper elementary school. Metric measurement and experimental design, Earth's place in the universe, Earth's history and diversity of life, Earth systems and resources, Waves, and Forces and motion are content areas which will be developed through a sequence of varied synchronous and asynchronous instructional lessons with an emphasis on experiment demonstrations, observation, generalization, application, and discussion. The science program in eighth grade is based on the South Carolina Science Standards. These standards may be accessed [here](#).***

***This school year we will be covering the following topics:***

***Quarter 1: Metric Measurement and Experimental Design, and Earth's Structure and Processes***

***Quarter 2: Earth's Biological History and Diversity of Life***

***Quarter 3: Forces & Motion***

***Quarter 4: Waves and Technology and Human Impact***

***Grade Determination: Student grades result from academic knowledge of the units of study in the Science 8 curriculum. A variety of assessment and evaluative procedures are employed to reflect student achievement, as measured by indicators specified in the CSD program of study for eighth grade science.***

Major: 60% Minor: 40%

The CSD grading scale is as follows: A = 90-100 B = 80-89 C = 70-79 D = 60-69 F = below 60

### Science 8 Topic Guide

<b>Weeks 1 - 2</b>	<b>Metric Measurement, and Experimental Design (Memory Jogger Review)</b>	<ul style="list-style-type: none"> <li>• Nature of Science</li> <li>• Metric system</li> <li>• Metric Measurement</li> <li>• Lab Equipment</li> <li>• Experimental Design</li> </ul>
<b>Weeks 3 - 6/7</b>	<b>Earth Systems and Resources</b>	<ul style="list-style-type: none"> <li>• Earth's Systems               <ul style="list-style-type: none"> <li>• Earth's Layers</li> <li>• Minerals</li> <li>• Rocks</li> <li>• Rock Cycle</li> <li>• Fossil Fuels</li> </ul> </li> </ul>
<b>Weeks 7 - 9</b>	<b>Continental Drift, Plate Tectonics, and Seafloor Spreading</b>	<ul style="list-style-type: none"> <li>• Continental Drift</li> <li>• Seafloor Spreading</li> <li>• Convection Currents</li> <li>• Plate Tectonics</li> <li>• Plate Boundaries</li> </ul>
<b>End of Quarter 1</b>		
<b>Weeks 1 - 3</b>	<b>Earthquakes and Volcanoes</b>	<ul style="list-style-type: none"> <li>• EQs and people</li> <li>• Problems associated with EQs</li> <li>• Stresses on rock layers</li> <li>• Minimization efforts of volcanic effects</li> </ul>
<b>Week 4 -5</b>	<b>Natural Selection</b>	<ul style="list-style-type: none"> <li>• Adaptations and Variations</li> <li>• Natural Selection (Darwin's Finches)</li> <li>• What is a fossil</li> <li>• Fossil record</li> <li>• Basic types of fossils</li> <li>• Extinction</li> </ul>
<b>Weeks 6 - 7</b>	<b>Relative Dating and the Law of Superposition</b>	<ul style="list-style-type: none"> <li>• Relative age</li> <li>• Relative dating</li> <li>• Law of Superposition</li> <li>• Index fossils</li> </ul>
<b>Weeks 8 - 9</b>	<b>Geologic Time</b>	<ul style="list-style-type: none"> <li>• Mass extinctions</li> <li>• Catastrophic events</li> <li>• Geologic Time Scale (eras, periods, epochs)</li> </ul>
<b>End of Quarter 2</b>		
<b>Weeks 1</b>	<b>Understanding Position, Distance, and Displacement</b>	<ul style="list-style-type: none"> <li>• Position</li> <li>• Distance</li> <li>• Displacement</li> </ul>
<b>Weeks 2 - 4</b>	<b>Calculating Speed</b>	<ul style="list-style-type: none"> <li>• Speed</li> <li>• Speed Triangle</li> <li>• Motion</li> <li>• Position</li> <li>• Calculating Average Speed</li> </ul>
<b>Weeks 5 - 6</b>	<b>Position-Time Graphs</b>	<ul style="list-style-type: none"> <li>• Graphing Motion</li> </ul>

		<ul style="list-style-type: none"> <li>• <i>Position</i></li> <li>• <i>Time</i></li> <li>• <i>Distance</i></li> <li>• <i>Slope</i></li> </ul>
<b>Weeks 7</b>	<b><i>Balanced and Unbalanced Forces &amp; Newton's 1st Law</i></b>	<ul style="list-style-type: none"> <li>• <i>Balanced Forces</i></li> <li>• <i>Unbalanced Forces</i></li> <li>• <i>Net Force</i></li> <li>• <i>Mass</i></li> <li>• <i>Inertia</i></li> </ul>
<b>Weeks 8 - 9</b>	<b><i>Newton's 3rd Law &amp; Friction</i></b>	<ul style="list-style-type: none"> <li>• <i>Action Force</i></li> <li>• <i>Reaction Force</i></li> <li>• <i>Gravity</i></li> <li>• <i>Friction</i></li> <li>• <i>Air Resistance</i></li> </ul>
<b>End of Quarter 3</b>		
<b>Weeks 1 - 2</b>	<b><i>Introduction to Waves; EM vs. Mechanical Waves</i></b>	<ul style="list-style-type: none"> <li>• <i>Types of waves</i></li> <li>• <i>Parts of a transverse and compressional waves</i></li> <li>• <i>EM vs. Mechanical waves</i></li> <li>• <i>Examples of EM waves</i></li> <li>• <i>Human benefits and risks of EM waves</i></li> <li>• <i>Wave Behaviors</i></li> <li>• <i>Wave Interference</i></li> <li>• <i>Parts of the Eye and How We See</i></li> </ul>
<b>Week 3</b>	<b><i>Intro to Astronomy &amp; Formation of the Universe</i></b>	<ul style="list-style-type: none"> <li>• <i>Tools to study the universe</i></li> <li>• <i>The Big Bang Theory</i></li> <li>• <i>Galaxies, Solar Systems, Planets, etc.</i></li> <li>• <i>Inner vs. Outer Planets</i></li> </ul>
<b>Week 4</b>	<b><i>Our Solar System, Other "Stuff" in Space, &amp; Rotation vs. Revolution</i></b>	<ul style="list-style-type: none"> <li>• <i>Meteors, meteorites, and meteoroids.</i></li> <li>• <i>Size differences of asteroids, comets, and meteoroids</i></li> <li>• <i>Rotation vs. revolution</i></li> </ul>
<b>Week 5</b>	<b><i>Moon Phases &amp; Features of the Moon</i></b>	<ul style="list-style-type: none"> <li>• <i>Moon phases.</i></li> <li>• <i>The names of each phase of the moon.</i></li> <li>• <i>Differentiating between waxing and waning</i></li> </ul>
<b>Week 6</b>	<b><i>Eclipses</i></b>	<ul style="list-style-type: none"> <li>• <i>Solar vs. Lunar Eclipses</i></li> <li>• <i>Eclipse moon phases.</i></li> <li>• <i>Moon appearance on Earth from during eclipses.</i></li> </ul>
<b>Week 7</b>	<b><i>Seasons</i></b>	<ul style="list-style-type: none"> <li>• <i>Earth's tilt and revolution around the Sun</i></li> <li>• <i>Seasons in each Hemisphere</i></li> </ul>
<b>Week 8</b>	<b><i>Tides</i></b>	<ul style="list-style-type: none"> <li>• <i>Causes of tides</i></li> <li>• <i>Types of tides (spring, neap)</i></li> <li>• <i>Tides and moon phases</i></li> </ul>
<b>Week 9</b>	<b><i>Our Sun</i></b>	<ul style="list-style-type: none"> <li>• <i>Sun's location</i></li> <li>• <i>Features of the Sun (sunspots, prominences, solar flares)</i></li> <li>• <i>Solar flare impact on Earth's communication technology</i></li> </ul>
<b>End of Quarter 4</b>		

