

## CURRICULUM MAP FOR SCIENCE GRADE 8

(Suggested timeline for introducing content and process standards - some overlap all four quarters)

SCIENCE GSEs	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
1. Life Science				<ul style="list-style-type: none"> <li>• Human's Role in the Ecosystem 1.1.1</li> <li>• Comparison of Humans to Wild Animals 1.1.2</li> <li>• Human Body System Defenses 1.2.1</li> <li>• Cell Part Functions 1.2.2</li> <li>• Human Body Systems 1.2.3</li> <li>• Human Sexual Reproduction and Embryonic Development 1.3.1</li> <li>• Inherited Diseases 1.3.3</li> <li>• Specialized Cells 1.4.1</li> <li>• Specialized Tissues 1.4.2</li> <li>• Specialized Organs 1.4.3</li> <li>• Abiotic Factor's Effects on Humans 1.5.1</li> <li>• Biotic Factors Effects on Humans 1.5.2</li> <li>• Human Population Changes (Predict) 1.5.3</li> <li>• Human Population Changes (Analyze) 1.5.4</li> <li>• Human - Ape Comparisons 1.8.1</li> <li>• Human Genus and Species 1.8.5</li> <li>• Pathogens and Infectious Disease 1.10.1</li> <li>• Abiotic Environmental Factors and Human Health 1.10.2</li> <li>• Environmental Influence on Humans 1.10.3</li> <li>• Human Embryonic Development 1.12.1-4</li> <li>* Apply Genetic Variation to Human Disease 1.9.1</li> </ul>

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				<p>** Apply Evolution to Human Development 1.9.2</p> <p>*** Apply Inherited Traits to Human Development 1.9.3, 1.11.1-3</p> <p>**** Apply Natural Selection to Human Health</p> <ul style="list-style-type: none"> <li>• Experiment/Activities 1.1.3, 1.2.4, 1.3.4, 1.4.4, 1.5.5, 1.8.2, 1.8.6, 1.10.4, 1.12.5</li> <li>• Open Response Questions 1.1.4, 1.2.5, 1.3.5, 1.4.5, 1.5.6, 1.8.3, 1.8.7, 1.10.5, 1.12.6</li> <li>• Assessment Targets 1.4, 1.8, 1.10, 1.12</li> </ul>
2. Earth and Space Science			<ul style="list-style-type: none"> <li>• Slow Processes on Other Planets 2.2.1</li> <li>• Fast Processes on Other Planets 2.2.2</li> <li>• Astronomical Discovery Timeline 2.4.1</li> <li>• Earth's Rotation vs. Revolution 2.5.1</li> <li>• Day, Night, Seasons 2.5.2</li> <li>• Phases of the Moon 2.5.3</li> <li>• Mass and Gravity 2.5.6</li> <li>• Distance and Gravity 2.5.7</li> <li>• Gravity's Role in the Solar System 2.5.8</li> <li>• Increasing Magnitude (Galaxies and the Universe) 2.6.1</li> </ul> <p>* Apply Earth's Change Over Time to Earth History 2.1.1</p>	

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			<ul style="list-style-type: none"> <li>** Apply the Effect of Flowing Water to Mars Landscape 2.2.3</li> <li>*** Apply Energy Transfer to Seasons 2.3.1</li> <li>**** Apply Global Climate Factors to Green House Effect on Venus 2.3.2</li> <li>• Experiment/Activities 2.4.2, 2.5.9, 2.6.2</li> <li>• Open Response Questions 2.4.3, 2.5.10, 2.6.3</li> <li>• Assessment Targets 2.4, 2.5, 2.6</li> </ul>	
<b>3. Physical Science</b>	<ul style="list-style-type: none"> <li>• Metric System Review</li> <li>• Speed 3.8.1</li> <li>• <math>S = d/t</math> 3.8.2</li> <li>• Speed, Velocity, and Acceleration 3.8.3</li> <li>• Newton's First Law 3.8.4</li> <li>• Newton's Second Law 3.8.5</li> <li>• Gravity 3.8.6</li> <li>* Apply Molecules to Speed. 3.4.1</li> <li>• Experiment/Activity 3.8.7</li> <li>• Open Response Question</li> </ul>	<ul style="list-style-type: none"> <li>• Potential and Kinetic Energy 3.6.1</li> <li>• Transformation of Energy 3.6.2</li> <li>• Law of Conservation of Energy 3.6.3</li> <li>• Electrical Circuits 3.6.4</li> <li>• Heat Energy 3.7.2</li> <li>* Apply Physical and Chemical Properties to Batteries 3.2.1</li> <li>** Apply States of Matter to Energy Transfer 3.4.2, 3.4.3</li> <li>*** Apply Physical Changes to Energy Conversions 3.5.5</li> <li>**** Apply Motion of Molecules to Energy Transfer 3.7.1</li> <li>• Experiment/Activities 3.5.7, 3.6.5, 3.7.3</li> <li>• Open Response Questions</li> </ul>	<ul style="list-style-type: none"> <li>• Light 3.9.1</li> <li>• Electromagnetic Spectrum 3.9.2</li> <li>• Waves (Electromagnetic vs. Mechanical) 3.9.3</li> <li>* Apply Density to Planets 3.1.1</li> <li>** Apply Physical and Chemical Properties to Planets 3.2.2</li> <li>*** Apply the Law of Conservation of Matter to the Big Bang Theory</li> <li>• Experiment/Activities 2.4.2, 2.5.9, 2.6.2</li> <li>• Open Response Questions</li> </ul>	<ul style="list-style-type: none"> <li>* Apply Atoms and Molecules to Cellular and Human Respiration 3.5.1, 3.5.2, 3.5.3, 3.5.4</li> <li>** Apply Chemical Reactions to Nuclear Fusion/Fission 3.5.6</li> </ul>

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	<p style="color: red;">3.8.8</p> <ul style="list-style-type: none"> <li>• Assessment Target 3.8</li> </ul>	<p style="color: red;">3.6.6, 3.7.4</p> <ul style="list-style-type: none"> <li>• Assessment Target 3.7</li> </ul>	<p style="color: red;">2.4.3, 2.5.10, 2.6.3</p> <ul style="list-style-type: none"> <li>• Assessment Targets 2.4, 2.5, 2.6</li> </ul>	
<b>4. Inquiry</b>	<ul style="list-style-type: none"> <li>• Identifying the problem</li> <li>• Questioning and hypothesizing</li> <li>• Predicting</li> <li>• Collecting data</li> <li>• Designing, conducting, &amp; critiquing investigations</li> <li>• Using tools and techniques safely</li> <li>• Representing, analyzing, and interpreting data</li> <li>• Using evidence to draw conclusions and communicate understanding of findings</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying the problem</li> <li>• Questioning and hypothesizing</li> <li>• Predicting</li> <li>• Collecting data</li> <li>• Designing, conducting, &amp; critiquing investigations</li> <li>• Using tools and techniques safely</li> <li>• Representing, analyzing, and interpreting data</li> <li>• Using evidence to draw conclusions and communicate understanding of findings</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying the problem</li> <li>• Questioning and hypothesizing</li> <li>• Predicting</li> <li>• Collecting data</li> <li>• Designing, conducting, &amp; critiquing investigations</li> <li>• Using tools and techniques safely</li> <li>• Representing, analyzing, and interpreting data</li> <li>• Using evidence to draw conclusions and communicate understanding of findings</li> </ul>	<ul style="list-style-type: none"> <li>• Identifying the problem</li> <li>• Questioning and hypothesizing</li> <li>• Predicting</li> <li>• Collecting data</li> <li>• Designing, conducting, &amp; critiquing investigations</li> <li>• Using tools and techniques safely</li> <li>• Representing, analyzing, and interpreting data</li> <li>• Using evidence to draw conclusions and communicate understanding of findings</li> </ul>