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|  | **Standards** | **Cross Cutting Concepts** | **Core Ideas** | **Science and Engineering Practices** | **Anchoring Phenomenon** |
| **1st TRIMESTER** |  **Principles of Energy and Matter**

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| **S8P1**e; **S8P2**a,b,c,d; **S8P5**c  |

 **Structure and Properties of Matter**

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| **S8P1**a,b,c,d,e,f; **S8P2**c,d  |

 **Waves**

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|  **S8P4**a,b,c,d,e,f,g  |

 **Forces**

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| **S8P1**e; **S8P2**c; **S8P5**a,b,c  |

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| **Motion****S8P3**a,b,c; **S8P2**a,b  |

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| Systems and system models  Scale, proportion, and quantity  Energy and matter  |

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| Structure and function Energy and matter  |

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| Cause and effect  Structure and function  Energy and matter  |

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| Cause and effect  Structure and function  Energy and matter  |

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| Cause and effect  Energy and matter  |

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|  Energy  Energy transformations  Matter (structure and composition)  Kinetic and potential energy  Heat transfer (conduction, radiation, and convection)  Electric and magnetic forces (electromagnets)  |
|  Structure and properties of matter  Mixtures and solutions  Elements and compounds  Matter (structure and composition)  Thermal energy  Energy transformations  States of matter  Chemical and physical properties and changes  Conservation of matter  |
|  Waves properties (frequency, amplitude, wavelength, and energy)  Energy (electromagnetic spectrum)  Light and sound  Wave propagation (reflection, refraction, absorption, diffraction and transmission)  Lenses characteristics  |
|  Matter (structure and composition)  Energy transformations  Forces (friction, gravitational, electrical, and magnetic)  Force fields  Conductors and insulators  |
|  Force and motion  Speed and acceleration  Speed and distance  Newton’s Laws of Motion  Balance and unbalanced forces  Energy transformations  Kinetic and potential energy  |

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|  Plan and carrying out investigations  Engage in arguments from evidence  |

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|   Develop and use models  Engage in arguments from evidence  |

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|   Develop and use models  Construct explanations and design solutions  |

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|   Plan and carry out investigations  Engage in arguments from evidence  |

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|  Construct explanations and design solutions  |

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|  Power Up: Lights Out <https://www.georgiapower.com/about-energy/energy-sources/nuclear/plantmap.html>

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|  Dinner is ready You are what you eat  |

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|  Best seats in the house <https://youtu.be/W0zxbIRpElM>  |

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| Seeing is believing: railroad car implosion Aurora Borealis Electrical force fields: safety first  |

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| Vehicular motion Crashes Runaway truck ramps  |

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| **2nd TRIMESTER** |
|  **3rd TRIMESTER**  |

**Laurens County Schools 8th Grade Science Curriculum Map**



(15 days)