|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Standards** | **Cross Cutting Concepts** | | **Core Ideas** | **Science and Engineering Practices** | **Anchoring Phenomenon** |
| **1st TRIMESTER** | **Principles of Energy and Matter**   |  | | --- | | **S8P1**e; **S8P2**a,b,c,d; **S8P5**c |   **Structure and Properties of Matter**   |  | | --- | | **S8P1**a,b,c,d,e,f; **S8P2**c,d |   **Waves**   |  | | --- | | **S8P4**a,b,c,d,e,f,g |   **Forces**   |  | | --- | | **S8P1**e; **S8P2**c; **S8P5**a,b,c |  |  | | --- | | **Motion**  **S8P3**a,b,c; **S8P2**a,b | | | |  | | --- | | Systems and system models  Scale, proportion, and quantity   Energy and matter |  |  | | --- | |   Structure and function  Energy and matter |  |  | | --- | |   Cause and effect  Structure and function  Energy and matter |  |  | | --- | |   Cause and effect   Structure and function  Energy and matter |  |  | | --- | |   Cause and effect   Energy and matter | | |  |  |  |  | | --- | --- | --- | --- | |  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 | | | | | | |  | | --- | |  Plan and carrying out investigations   Engage in arguments from evidence |  |  | | --- | |  Develop and use models   Engage in arguments from evidence |  |  | | --- | |  Develop and use models   Construct explanations and design solutions |  |  | | --- | |  Plan and carry out investigations   Engage in arguments from evidence |  |  | | --- | |  Construct explanations and design solutions | | |  |  | | --- | --- | | Power Up: Lights Out  <https://www.georgiapower.com/about-energy/energy-sources/nuclear/plantmap.html>     |  | | --- | | Dinner is ready  You are what you eat | |  |  | | --- | | Best seats in the house  <https://youtu.be/W0zxbIRpElM> |  |  | | --- | | Seeing is believing:  railroad car implosion  Aurora Borealis  Electrical force fields:  safety first |  |  | | --- | | Vehicular motion  Crashes  Runaway truck ramps | |
| **2nd TRIMESTER** |
| **3rd TRIMESTER** |



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



(15 days)