<table>
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<th>1st Term: 8/7/19 - 10/11/19</th>
<th>2nd Term: 10/14/19 - 12/20/19</th>
<th>3rd Term: 1/6/20 - 3/6/20</th>
<th>4th Term: 3/16/20-5/21/20</th>
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**Science and Engineering Practices**
- Scientific Method
- Tools of Science
- Graphing
- Experimental Design
- Safety

**Norms of Scientific Investigations**
- Introduction to Lab Report
- Template

**Properties of Matter**
- P.7.5A.1 - physical properties
- P.7.5A.2 - chemical properties
- P.7.5A.3 - compare and contrast physical and chemical properties

**Atomic Structure/Periodic Table**
- P.7.5C.1 - atomic structure
- P.7.5C.2 - discoveries leading to current atomic model
- P.7.5C.3 - properties of elements, atoms, molecules, compounds, solutions, mixtures
- P.7.5C.4 - use the periodic table to predict properties and interactions of elements
- P.7.5D.5 - chemical formulas
- P.7.5C.6 - bonding

**Chemical Formulas/Chemical Reactions**
- P.7.5D.1 - chemical reactions
- P.7.5D.2 - scientific investigations on chemical reactions
- P.7.5D.3 - acids and bases
- P.7.5D.4 - energy in bonds

**Law of Conservation of Mass/Balancing Equations**
- P.7.5E.1 - Law of Conservation of Mass in closed systems; Lavoisier’s discovery
- P.7.5E.2 - Open systems
- *Common assignment module = lab report (modified)*
- P.7.5E.3 - balancing equations

**Effects of Temperature and Pressure on Physical State, Molecular Motion and Interactions**
- P.7.5B.1 - effects of temperature and pressure on motion of molecules relative to polymers
- P.7.5B.2 - relationship between pressure, volume, density, and temperature of a gas
- P.7.5B.3 - how heat and/or pressure affect density

**Earth’s Tilt/Seasons**
- E.7.9C.1 – model Earth’s tilt
- E.7.9C.2 - seasons

**Weather/Climate/Models/Maps**
- E.7.9A.1 – weather vs climate
- E.7.9A.2 - movement of water and air masses
- E.7.9A.3 - atmospheric data and weather maps
- E.7.9A.4 - climate
- E.7.9A.5 - solar energy, convection and weather patterns
- E.7.9A.6 - air masses, pressure systems and frontal boundaries
- E.7.9A.7 - topographic maps to predict weather patterns

**Photosynthesis/Cellular Respiration**
- L.7.3.2 and L.7.3.3 - photosynthesis and cellular respiration
- *Common assignment module = lab report (modified)*

**Abiotic Cycles**
- L.7.3.1 - cycling of water, oxygen, carbon and nitrogen through ecosystems

**Ecology and Interdependence**
- L.7.3.4 - explain how disruptions affect biodiversity
- L.7.3.5 - design solutions for sustaining healthy ecosystems
- *Common assignment module - engineering design process/water purification*

**The relationship between natural phenomena, human activity and global climate change**
- E.7.9B.1 - causes and effects of climate change
- E.7.9B.2 - interpret data about the relationship between carbon dioxide and the presence of greenhouse gases
- E.7.9B.3 - natural and man-made causes of climate change