Students will:

1. Use technology to perform accurate scientific investigations and communications.  
   (GENERAL)

2. Understand how scientific knowledge changes and accumulates over time.  (GENERAL)

3. Know ways in which science and society interact with one another.  (GENERAL)

4. Understand the use of inorganic/organic nomenclature (PHYSICAL)

5. Know that objects can be described and classified by their physical and chemical properties  
   (PHYSICAL)

6. Understand atomic theory and how it is used to explain repeating patterns of physical and  
   chemical properties within families of elements (PHYSICAL)

7. Know that carbon atoms can bond in chains, rings and branching networks to form a variety  
   of structures including polymers, oils, and large molecules essential to life (PHYSICAL)

8. Know energy types, sources, and conversions and their relationship to heat and temperature  
   (PHYSICAL)

9. Understand the electromagnetic spectrum and the nature of waves how they transfer energy  
   (PHYSICAL)

10. Understand how wave energy interacts with matter (PHYSICAL)

11. Understand the relationship of force and motion and how Newton’s Laws describe them  
    (PHYSICAL)

12. Know that weather and climate involve the transfer of energy in and out of the environment  
    and is the result of temperature, pressure, and density differences in the atmosphere and oceans  
    (EARTH)

13. Understand that elements move though geochemical cycles (EARTH)

14. Understand gravitation and its relationship to masses and motion (EARTH)

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9-12 team Dan De Groot