**February/March 2019 Next Generation Science Standards Correlations**

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| **Article** | **NGSS** |
| **Making Sense of Milk** | |  | | --- | | **HS-LS1-6**  Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.  **HS-ETS1-3**  Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts. |   **Disciplinary Core Ideas:**   * LS1.A: Structure and Function * ETS1.C: Optimizing the Design Solution   **Crosscutting Concepts:**   * Structure and Function   **Science and Engineering Practices:**   * Constructing explanations and designing solutions * Asking questions (for science) and defining problems (for engineering)   **Nature of Science:**   * Science addresses questions about the natural and material world |
| **What’s Sunless Tanner?** | **HS-PS2-6**  Communicate scientific and technical information about why the molecular-level structure is important in the functioning of designed materials.  **HS-ETS1-3**  Evaluate a solution to a complex real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.  **Disciplinary Core Ideas**:   * PS1.A: Structure and Properties of Matter * ETS1.C: Optimizing the design solution   **Crosscutting Concepts:**   * Cause and Effect * Structure and Function * Energy and Matter * Stability and Change   **Science and Engineering Practices:**   * Planning and carrying out investigations * Constructing explanations (for science) and designing solutions (for engineering)   **Nature of Science:**   * Science models, laws, mechanisms, and theories explain natural phenomena * Scientific knowledge assumes an order and consistency in natural systems |
| **The Periodic Table Turns 150** | **HS-PS1-1**  Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.  **HS-PS1-2**  Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.  **Disciplinary Core Ideas**:   * PS1.A: Structure and Properties of Matter   **Crosscutting Concepts:**   * Patterns * Stability and Change   **Science and Engineering Practices:**   * Developing and Using Models * Constructing explanations (for science) and designing solutions (for engineering)   **Nature of Science:**   * Science addresses questions about the natural and material world. |
| **Clean & Green** | |  | | --- | | **HS-PS1-3**  Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.  **HS-ESS3-4**  Evaluate or refine a technological solution that reduces impacts of human activities on natural systems. |   **Disciplinary Core Ideas:**   * PS1.A: Structure and Properties of Matter * ETS1.C: Optimizing the Design Solution   **Crosscutting Concepts:**   * Structure and Function * Stability and Change   **Science and Engineering Practices:**   * Planning and carrying out investigations   **Nature of Science:**   * Scientific knowledge assumes an order and consistency in natural systems. * Science is a human endeavor. |