**April/May 2019 Next Generation Science Standards Correlations**

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| **Article** | **NGSS** |
| **Celebrating Paper!** | |  | | --- | | **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-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:**   * Patterns * Structure and Function   **Science and Engineering Practices:**   * Constructing explanations and designing solutions * Planning and carrying out investigations   **Nature of Science:**   * Scientific knowledge assumes an order and consistency in natural systems |
| **Fighting Frizz: How Chemistry Solved a Bad Hair Day** | **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   **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’s Final Four** | **HS-PS1-8.** Develop models to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay.  **Disciplinary Core Ideas**:   * PS1.C: Nuclear Processes   **Crosscutting Concepts:**   * Patterns * Energy and Matter * Stability and Change   **Science and Engineering Practices:**   * Asking questions (for science) and defining problems (for engineering) * Developing and Using Models * Obtaining, evaluating, and communicating information   **Nature of Science:**   * Science addresses questions about the natural and material world. |
| **What Are Pool Chemicals?** | |  | | --- | | **HS-PS1-6.** Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium. |   **Disciplinary Core Ideas:**   * PS1.A: Structure and Properties of Matter * PS1.B: Chemical Reactions   **Crosscutting Concepts:**   * Cause and Effect * Structure and Function * Stability and Change   **Science and Engineering Practices:**   * Constructing explanations (for science) and designing solutions (for engineering) * Obtaining, evaluating, and communicating information   **Nature of Science:**   * Scientific knowledge assumes an order and consistency in natural systems. |