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

|  |  |
| --- | --- |
| **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.
 |