**October/November 2017 Next Generation Science Standards Correlations**

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| **Article** | **NGSS** |
| **A Toxic Dose of Water: How Much Is Too Much?** |

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| **HS-LS1-2** Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. |

**Disciplinary Core Ideas:*** LS1.A: Structure and Function

**Crosscutting Concepts:** * Systems and system models
* Scale, proportion, and quantity

**Science and Engineering Practices:** * Developing and using models
* Constructing explanations and designing solutions

**Nature of Science:** * Scientific knowledge assumes an order and consistency in natural systems
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| **Chemistry Rocks!** |

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| **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.**Disciplinary Core Ideas**:* PS1.A: Structure and properties of matter
* PS2.B: Types of Interactions

**Crosscutting Concepts:** * Patterns
* Structure and function

**Science and Engineering Practices**: * Developing and using models
* Planning and carrying out investigations

**Nature of Science**: * Science addresses questions about the natural and material world
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| **Compost: Your Trash, Nature’s Treasure** |

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| **HS-PS1-5.**Apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs.**HS-LS2-3**.Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.**HS-ETS1-2.**Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering. |

**Disciplinary Core Ideas**:* LS2.B: Cycles of matter and energy transfer in ecosystems
* PS1.B: Chemical reactions
* ETS1.C: Optimizing the design solution

**Crosscutting Concepts:** * Cause and Effect
* Systems and System Models
* Energy and Matter

**Science and Engineering Practices:** * Developing and using models
* Planning and carrying out investigations
* Constructing explanations and designing solutions

**Nature of Science:** * Scientific knowledge assumes an order and consistency in natural systems
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| **Making Water Safe to Drink** |

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| **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
* PS1.B: Chemical reactions
* ETS1.B: Developing possible solutions

**Crosscutting Concepts:** * Structure and function
* Cause and effect: Mechanism and explanation
* System and system models

**Science and Engineering Practices:** * Constructing explanations and designing solutions
* Planning and carrying out investigations

**Nature of Science**: * Science addresses questions about the natural and material world.
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| **Dental Fillings: A Reaction in Your Mouth** |

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| **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
* PS1.A: Structure and properties of matter
* ETS1.B: Optimizing the design solution

**Crosscutting Concepts:** * Systems and system models
* Stability and change
* Structure and function

**Science and Engineering Practices:** * Asking questions (for science) and defining problems (for engineering)
* Obtaining, evaluating, and communicating information

**Nature of Science:** * Scientific knowledge assumes an order and consistency in natural systems.
* Scientific knowledge is based on empirical evidence
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