**December 2014/January 2015 Next Generation Science Standards Correlations**

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| **Article** | **NGSS** |
| **How Toxic is Toxic?**  |

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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. |

**Crosscutting Concepts:** * Scale, proportion, and quantity

**Science and Engineering Practices:** * Developing and using models
* Using mathematics and computational thinking
* Obtaining, evaluating, and communicating information

**Nature of Science:** * Scientific knowledge assumes an order and consistency in natural systems.
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| **So Tired in the Morning . . . The Science of Sleep** |

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| **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.**Crosscutting Concepts:** * Cause and effect: Mechanism and explanation
* Structure and Function

**Science and Engineering Practices**: * Constructing explanations and designing solutions

**Nature of Science**: * Science models, laws, mechanisms and theories explain natural phenomena.
* Science addresses questions about the natural and material world.
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| **A Measure of confusion** |

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| **HS-ETS1-3.**Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts. |

**Crosscutting Concepts:** * Cause and Effect

**Science and Engineering Practices:** * Analyzing and interpreting data
* Obtaining, evaluating, and communicating information

**Nature of Science:** * Science is a human endeavor.
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| **Red, Brown, Black, Orange Hair Today, Bleached Tomorrow** |

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| **HS-PS3-2.**Develop and use models to illustrate that energy at the macroscopic scale can be accounted for as a combination of energy associated with the motion of particles (objects) and energy associated with the relative positions of particles (objects).**Crosscutting Concepts:** * Cause and Effect
* Structure and Function

**Science and Engineering Practices:** * Constructing evidence and designing solutions

**Nature of Science**: * Science addresses questions about the natural and material world.
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| **Pheromones: The Chemical Language of Animals**  |

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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.  |
| **Crosscutting Concepts:** * Structure & Function
* Systems and System Models

**Science and Engineering Practices**: * Asking questions and defining problems
* Obtaining, evaluating, and communicating information

**Nature of Science**: * Science models, laws, mechanisms, and theories explain natural phenomena.
* Scientific knowledge assumes an order and consistency in natural systems.
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