**October/November 2015 issue**

**Correlations to the Next Generation Science Standards**

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| **Article** | **NGSS** |
| **Eating with Your Eyes: The Chemistry of Food Colorings**  |

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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 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:** * Patterns
* Structure and Function

**Science and Engineering Practices:** * Constructing explanations (for science) and designing solutions (for engineering)

**Nature of Science:** * Scientific knowledge assumes an order and consistency in natural systems.
* Science is a human endeavor.
* Science addresses questions about the natural and material world.
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| **Tooth Decay: A Delicate Balance** |

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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:** * Structure and Function
* Stability and Change

**Science and Engineering Practices**: * Developing and using models.
* Constructing evidence (for science) and designing solutions (for engineering)

**Nature of Science**: * Scientific knowledge is based on empirical evidence.
* Scientific knowledge assumes an order and consistency in natural systems.
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| **Probiotics: Good Bacteria, Good Health** |

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| **HS-LS1-3.** Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.  |

**Crosscutting Concepts:** * Stability and change
* Systems and System Models

**Science and Engineering Practices:** * Constructing evidence (for science) and designing solutions (for engineering)

**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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| **Dirt? Who Needs It? How Hydroponics Is Poised to Change the World** |

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| **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 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:** * Structure and Function
* Systems and system models

**Science and Engineering Practices:** * Developing and using models
* Constructing evidence (for science) and designing solutions (for engineering)

**Nature of Science**: * Science is a human endeavor.
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| **Light in the Cellar of the Sea** |

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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: mechanism and explanation
* Systems and system models

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

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