**February/March 2016 Issue**

**Correlations to the Next Generation Science Standards**

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| **Article** | **NGSS** |
| **Biomimicry: Taking Inspiration from Nature** | |  | | --- | | **HS-PS2-6.**  Communicate scientific and technical information about why the molecular-level structure is important in the function 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. |   **Disciplinary Core Ideas:**   * PS1.A Structure of matter * PS2.A Forces and Motion * PS2.B Types of Interactions * ETS1.C Optimizing the Design Solution   **Crosscutting Concepts:**   * Cause and effect: Mechanism and explanation * Scale, proportion, and quantity * Structure and Function   **Science and Engineering Practices:**   * Constructing explanations (for science) and designing solutions (for engineering)   **Nature of Science:**   * Science addresses questions about the natural and material world. |
| **Stuck on You** | |  | | --- | | **HS-PS2-6.**  Communicate scientific and technical information about why the molecular-level structure is important in the function 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.  **Disciplinary Core Ideas**:   * PS1.A Structure of matter * PS2.A Forces and Motion * PS2.B Types of Interactions * ETS1.C Optimizing the Design Solution   **Crosscutting Concepts:**   * Cause and effect: Mechanism and explanation * Structure and Function   **Science and Engineering Practices**:   * Constructing evidence (for science) and designing solutions (for engineering)   **Nature of Science**:   * Science addresses questions about the natural and material world. | |
| **Shaking Out the Facts about Salt** | |  | | --- | | **HS-LS1-3.**  Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.  **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. |   **Disciplinary Core Ideas**:   * Structure and Function * Developing Possible Solutions   **Crosscutting Concepts:**   * Systems and System Models * Stability and Change   **Science and Engineering Practices:**   * Constructing explanations (for science) and designing solutions (for engineering)   **Nature of Science:**   * Scientific knowledge is open to revision in light of new evidence. |
| **Kombucha: Something’s Brewing** | |  | | --- | | **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 * Cause and effect: Mechanism and explanation   **Science and Engineering Practices:**   * Obtaining, evaluating, and communicating information   **Nature of Science**:   * Science models, laws, mechanisms, and theories explain natural phenomena. | |
| **Let’s Talk about E-Cigarettes** | |  | | --- | | **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 * Structure and Function   **Science and Engineering Practices**:   * Analyzing and interpreting data * Obtaining, evaluating, and communicating information   **Nature of Science**:   * Science addresses questions about the natural and material world. | |