CM Logoblack

**April/May 2014 Next Generation Science Standards Correlations**

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| **Article** | **NGSS** |
| **(Under)Arm Yourself with Chemistry!** | |  | | --- | | **HS-PS1-2.**  Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties. |   **Crosscutting Concepts:**   * Patterns * Structure & Function   **Science and Engineering Practices:**   * Constructing Explanations and Designing Solutions   **Nature of Science:**  Scientific knowledge is based on empirical evidence. |
| **A Solar Future** | |  | | --- | | **HS-PS3-3**  Design, build, and refine a device that works within given constraints to convert one form of energy into another form of energy.  **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:**   * Energy & Matter   **Science and Engineering Practices**:   * Constructing Explanations and Designing Solutions   **Nature of Science**:  Many decisions are **not** made using science alone, but rely o social and cultural contexts to resolve issues. | |
| **Skin Color: A Question of Chemistry** | |  | | --- | | **HS-LS4-4.**  Construct an explanation based on evidence for how natural selection leads to adaptation of populations. |   **Crosscutting Concepts:**   * Cause and Effect * Structure and Function   **Science and Engineering Practices:**   * Constructing Explanations and Designing Solutions   **Nature of Science:**  Scientific knowledge has a history that includes refinement of, and changes to, theories, ideas, and beliefs over time. |
| **Sinkholes: Chemistry Goes Deep** | |  | | --- | | **HS-ESS2-2.**  Analyze geoscience data to make the claim that one change to Earth’s surface can create feedbacks that cause changes to other Earth systems.  **Crosscutting Concepts:**   * Cause and Effect * Stability and Change   **Science and Engineering Practices:**   * Analyzing and Interpreting Data * Constructing Explanations and Designing Solutions   **Nature of Science**:  Scientific knowledge is based on the assumption that natural laws operate today as they did in the past and will continue to do so in the future. | |
| **Nail Polish: Cross-Linked Color on the Move** | |  | | --- | | **HS-PS1-2.**  Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties. | | **Crosscutting Concept:**   * Patterns * Structure & Function   **Science and Engineering Practices**:   * Constructing Explanations and Designing Solutions   **Nature of Science**:  New technologies advance scientific knowledge. | |