**December 2017/January 2018 Next Generation Science Standards Correlations**

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| **Article** | **NGSS** |
| **Got Vitamin D?** | |  | | --- | | **HS-LS1-4**  Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms. |   **Disciplinary Core Ideas:**   * LS1.A: Structure and Function   **Crosscutting Concepts:**   * Cause and effect: Mechanism and explanation * Systems and system models * Structure and function   **Science and Engineering Practices:**   * Constructing explanations and designing solutions * Obtaining, evaluating, and communicating information   **Nature of Science:**   * Scientific knowledge assumes an order and consistency in natural systems | |
| **Cheesy Science!** | **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.  **Disciplinary Core Ideas**:   * PS1.A: Structure and properties of matter * PS1.B: Chemical reactions   **Crosscutting Concepts:**   * Scale, proportion, and quantity   **Science and Engineering Practices:**   * Asking questions (for science) and defining problems (for engineering) * Analyzing and interpreting data   **Nature of Science:**   * Scientific knowledge assumes an order and consistency in natural systems | |
| **Drained: The Search for Long Lasting Batteries** | |  | | --- | | **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-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**:   * 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:**   * Planning and carrying out investigations * Constructing explanations and designing solutions   **Nature of Science:**   * Science models, laws, mechanisms, and theories explain natural phenomena | |
| **Teens and Depression** | |  | | --- | | **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:**   * Cause and effect: Mechanism and explanation * Structure and function * Stability and change   **Science and Engineering Practices:**   * Constructing explanations and designing solutions * Obtaining, evaluating, and communicating information   **Nature of Science:**   * Scientific knowledge is based on empirical evidence | |
| **The Write Stuff: The Fascinating Chemistry of Pencils** | **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 * Obtaining, evaluating, and communicating information   **Nature of Science**:   * Science addresses questions about the natural and material world | |