**By: Barbara Carter Jellico High School Campbell Co.**

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| **Text Set Title: DNA, It’s in Our Genes** | |
| **Text Set Grade Placement: 9-12** | |
| **Enduring Understandings** | |
| DNA and genetic engineering is about to change the world as we know it. | |
| **Text and Resources**  (Indicate in what order the supporting works are to be introduced and taught.) | |
| **Anchor Text** | **Title:** **Hacking DNA with Rapid DNA Prototyping: Synthetic Biology for Everyone**  **Author:Justin Pahara** |
| **Supporting Works** | **Book(s)**  1. **Hacking DNA with Rapid DNA Prototyping: Synthetic Biology for Everyone, Justin Pahara**  2.The Future Is Now: America Confronts the New Genetics (Hardcover)  by William Kristol (Author), et al.  3. **Genetic Engineering: Science, Technology, Engineering (Calling All Innovators: A Career for You) Paperback – February 1, 2016**  by [Burgan Michael](https://www.amazon.com/s/ref=dp_byline_sr_book_1?ie=UTF8&text=Burgan+Michael&search-alias=books&field-author=Burgan+Michael&sort=relevancerank) (Author)  **Article(s)**  4. Decoding your DNA Science World Sept. 3 , 2012  5. Issue Overview: Gene Editing Newsela  6. Opinion: Scientists discuss when "gene editing" technology should be used Newsela  **Infographic(s)**  7. http://visual.ly/what-dna  **Supporting Works will be introduced/taught in the following order:**  **7. Visual DNA**  **4. Decoding**  **2. The Future**  **5. Issue Overview**  **1. Hacking DNA**  **6. Opinion**  **3. Genetic Engineering** |
| **Standards** | Bio1.LS1  Demonstrate how DNA sequence information is decoded through transcriptional and translational processes within the cell in order to synthesize proteins. Examine the relationship of structure and function of various types of RNA and the importance of this relationship in these processes |
| **Rich, Authentic Task** | |
| * The students will breed bacteria to experiment with genetic engineering. * The students will demonstrate how easily DNA can be manipulated. * The students will write a lab report describing the experiment and present their findings to the other students. | |