**INDEPENDENT READING PROJECT**

Due Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

This project is designed to be completed by the student, outside of scheduled class time. There are four main components to the project:

1. Reading a science-based book
2. Keeping a journal of all work related to the project
3. Writing a summative paper relating the book to eight main themes of biology
4. Creating a three-dimensional product related to the book
5. Pick a book from the list provided. If you have a book that you are interested in reading and believe is appropriate for this project, but it is not on the list, meet with your teacher to discuss approval. The teacher’s determination for approval is final.
6. Keep a dynamic journal. It is recommended that this be done in either a spiral notebook or composition book. IT MUST BE HAND-WRITTEN … write neatly! **Date** and **outline** your progress through the entire process. This includes the dates you have read from the book, the pages you have read, a short summary of what is happening in the book, and any thoughts you might have in regard to what they have read. This is a time/place for informal reflection, brainstorming, et cetera. It is also a place to document time spent and ideas formulated on the three-dimensional product … from conception to finish.

Included at the end of the journal is a final reflection by the student encompassing the entire process. The student evaluates the quality of the three final pieces of the project and suggests improvements.

1. Write a paper explaining how the book relates to each of the following themes (1 paragraph per theme, min of 5 sentences per paragraph)
   1. **Science as a process** (not just scientific method, but also science is always changing ... it is fluid and dynamic, not static!)
   2. **Evolution**  (change over time through the process of natural selection ... remember the four parts)
   3. **Energy transfer** (photosynthesis/cellular respiration and from one organism to another)
   4. **Continuity and change** (species tend to remain the same from generation to generation using the same genetic code, but over time can change through evolution. Think DNA and mutation)
   5. **Relationship to structure and function** (can be microscopic or macroscopic) ... (how does the shape of something relate to how it is used by the organism)
   6. **Regulation** (how is it controlled within the organism)
   7. **Interdependence in nature** (every living thing is affected by or depends upon another living thing)
   8. **Science, technology, and society** (research leads to technological advances that impact society)

Site specific examples for each theme from the book.  Include the page number with the site.  Min of 1 site per theme.

1. Design a three-dimensional product that is reflective of the book. Be able to explain what it is, how it relates to the book, and why it is what you chose to do.