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26 February 2016

Proposal for a Science-Based English Elective for 2016-2017

What?

For next year, I would like to see one of the semester-long senior electives be based on important scientific works in history, and their impact on society. We would read about some of the big names in the scientific community with a focus on Johannes Kepler (an early astronomer), John Dalton (who pioneered the atomic theory), Charles Darwin (and his impact on biology through evolution), and Albert Einstein (with a focus on modern physics and his impact with the theory of relativity). We will read these books, or excerpts from them (in the case of Darwin's book, which is too large to spend time reading cover to cover).

Overview (to be read before the class begins): The Scientific Revolution by Margaret C. Jacob

Kepler: The Six-Cornered Snowflake and Kepler: A Novel by John Banville

Dalton: His essays regarding atomic theory and The Girl in the Golden Atom by Ray Cumming

Darwin: Origin of Species and Alice in Wonderland by Carroll

Einstein: Relativity and Einstein's Dreams by Alan Lightman

Each scientist is paired with a work of his own, and a fiction take on their findings or contributions to science. By studying the science alongside an abstract take on it, we can analyze the importance of these men in our society, and find connections between science and stories that may not appear to have an academic foundation. Through writing essays and having lots of group discussion, we will be able to tackle difficult subject matter, understand complex theories, and stretch our creative thinking skills to draw connections between the novels and essays we read.

Who?

As of now, I know that myself, Mary Alice Hayes, and Joaquina Guevara would all be interested in taking this course. I know that my grade has many scientific and mathematical minds, and I do not doubt that filling a class of around 5-10 would be difficult. The class would be open to seniors who prefer to fill their english requirement with something different from a "traditional" class, by allowing time for those students to learn and develop their English proficiency through studying one of their passions: science and discovery.

Why?

When I chose my english class for my junior year, I was drawn to AP Language and Composition because of its base in non-fiction works. When given the choice to read on my own, I focus on books that teach physics and math. I know that there are others like me who would enjoy a class set up in this way, and who could benefit from having this time to learn the things we desire, while still having a structured class to guide our learning and assist with our understanding.

How?

One assignment that I have planned for this year is for each student to have a journal in which to record reflections on their nightly reading and class discussions. By giving students the task of thinking like a scientist, and having a central place to store thoughts and questions of their own, we can all fuel our curious desires similar to those scientists whom we are studying. Also, because this is an English class, essays will be important to the course. A few topics for these essays include:

1. Comparing Alice in Wonderland to Darwin's theory of evolution with a focus on how the novel may satirize Darwin's ideas and their place in society.
2. Research a scientist of the student's choice, and reflect on why their research may be fit for a fictional take on the science. Write a short story based off of the work/theory of this scientist.
3. Final Assignment: Based on everything you have learned in this course, including ideas from class discussions and personal reflections, how might fiction make science more accessible to the general public?

Conclusion

I feel that this elective will be beneficial to those who are interested in science, or are just curious to learn more about the the world and think in a very abstract fashion. Class discussions will help all of us tackle these difficult theories together, and we will all grow both as teachers and thinkers. By comparing science to literature, we are stepping into new territory for many of us, and I think that my peers and I will welcome the challenge. I am excited to have the opportunity to be a part of an English class of this variety, or even to have been part of the discussion and planning, and I look forward to seeing how this turns out.