

## Young Adult (YA) Science Fiction in the classroom: benefits of cross-curricular reading for English & science instruction

**Contemporary young adult (YA) science fiction puts teenage characters in the middle of futuristic stories related to the headlines of today: artificial intelligence, human space flight, climate change, exoplanet discovery, gene splicing, ocean pollution, and more.**

Coordinating such cross-curricular work promotes student engagement and encourages discussion about both the feasibility and the ethics of technology, discovery, and invention.

### **Benefits for science instruction**

- Provides a different context for experiments and abstract concepts, one that allows a new way for students to think about scientific applications.
- Helps create a framework for discussion about the “should we” issues of advanced technology, not just the “can we” questions. Science fiction allows a non-threatening/less divisive way of discussing ethical concerns in conjunction with scientific discovery.
- Bolsters the circular relationship between science fiction and scientific invention.

### **Benefits for English instruction**

- Increases student engagement. English teachers have often used historical context for this purpose. With many of today’s societal concerns tied to science and technology—and students’ everyday experiences linked to technological inventions—English class should use not only the past but also the future to develop contemplative, empathetic thinkers.
- Provides a wealth of opportunities for teaching literary techniques such as imagery, analogy, and metaphor because of the genre’s intricate world-building. This enhances instruction of literary devices by presenting them outside the traditional poetry context.
- Allows the opportunity for teachers to implement two desirable strategies: choice in reading material and pairing modern literature with classics. Logistically, these strategies are easier to implement with YA sci-fi than some other modern texts. Certain “hot button” science topics, such as artificial intelligence and interplanetary travel, appear in numerous novels, which provides a variety of stories a reader can choose from. The plethora of famous, classic sci-fi short stories allows for pairing and comparison with classic literature without needing to devote weeks of additional classroom time to that task.

### **General Benefits**

- Traditionally, English and science classes have not been combined for cross-curricular work as often as some other combinations. YA science fiction allows a way to do so.
- It also provides an avenue toward even greater interdisciplinary participation with social studies, math, the arts, etc. In fact, YA sci-fi as part of an integrated STEAM curriculum (Science-Technology-Engineering-Arts-Math) affords many opportunities for student-centered, project-based learning.
- Science fiction addresses our modern concerns in ways that foster spirited but congenial discussion. It reflects our fears and hopes for the future. This encourages students to push the boundaries of their self-exploration.



“I was attracted to science fiction because it was so wide open. I was able to do anything and there were no walls to hem you in and there was no human condition that you were stopped from examining.”

Octavia E. Butler

American sci-fi writer, recipient of multiple Hugo & Nebula Awards