



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
1987 Volume II: Epic, Romance and the American Dream

Science Fiction and the Future

Curriculum Unit 87.02.04
by Lorna S. Dils

This unit is designed to be used in conjunction with the future studies that are a part of the curriculum for seventh grade Talented and Gifted students. However, the unit has been designed so that it can be used by any seventh, eighth, or ninth grade student of average or above average reading ability in their English classes with a minimum of adaptation. For example, because I see these students once a week, I have chosen only short stories for this unit. Other teachers could easily begin with short stories and move into science fiction novels.

The Talented and Gifted Program (TAG) in New Haven is a comprehensive kindergarten through twelfth grade program that has a different format for each of its four components. The 4-7 program, upon which this paper focuses, is comprised of three resource rooms in three different schools in the city. Students attend for one full day each week. Besides being a “pull-out” program. The 4-7 TAG resource rooms provide an enrichment, rather than strictly accelerated, program. Activities at each grade level are planned around core areas of study. The seventh grade concentrates on future studies. The approach to this area of study is interdisciplinary, and any lesson may contain a combination of reading, writing, mathematics, art, drama, etc. Activities are often hands on. Guest speakers who are experts in related fields are frequent visitors to the resource rooms. Field trips are used whenever possible to expose students to information about the topic at hand outside of the classroom, and to allow students to see what they are learning in actual use or in the workplace. An example of this would be a field trip to a robotics factory to see where robots are actually being developed and tested.

Because of the breadth of the program’s screening process, our students come to us with a variety of skills, talents and interests. This explains why not all of our students are eager readers, and may not include writing on their lists of favorite subjects. This is true at all grade levels including the seventh grade.

Added to all of the above is one more extremely important factor: adolescence! The enthusiastic sixth grader sometimes changes over the course of a summer, and becomes less cooperative, less enthusiastic, very concerned about his or her standing with peers, shy around the opposite sex, fascinated with the opposite sex, etc., etc., etc. This is not meant to be a treatise on adolescence, and all middle school teachers are aware of the change that comes about. The point is that our TAG seventh graders are no different from the rest of the seventh grade population in that respect, and they can become different individuals for awhile. Add to all of the above leaving your school (your friends!) one day a week to be a part of a group of students you may never have met before and increased academic demands from homebase schools and the TAG program. The

seventh grade year in TAG for students and teachers can be frustrating, challenging and wonderfully rewarding!

Before discussing the strategies for teaching this unit, a few words are necessary to explain why I teach the future, and why I use science fiction as one means of doing this.

Perhaps the most important reason to discuss the subject of the future with our TAG students is to introduce them to the concept of change. Technology is changing faster than our society can adjust to it. For example, surrogate motherhood has raised legal, moral, and ethical issues that society is not yet prepared to address. As our seventh graders grow, issues such as that of surrogate motherhood will arise again and again. These students need to be educated to the possibilities of the future. Developing an awareness of possible issues will begin to give students the skills to cope with changes in their lives. Draper L. Kaufman, Jr., in his book *Teaching the Future: A Guide to Future Oriented Education* , states that encouraging students to think through as many possibilities as they can for a future issue will better prepare them for the future, even if only one of the possibilities actually occurs, than if they had never considered any possibilities at all. He also states that actual factual data about the future is less important than a psychological orientation towards the future, and that as teachers we must help students develop the habit of looking ahead and the skills to anticipate effectively.

Additionally, according to Kaufman, kids today see school as very separate from the world around them—their curriculum is irrelevant and they have no intrinsic reason to learn (6). But, since our students already know about *E.T.* , *Star Wars* , and *Aliens* , the classroom teacher can capitalize on this and use it as a springboard to introduce new information (Hoomes 3).

How, then, to introduce new knowledge—specifically knowledge about the future? Our students, as mentioned above, are all in contact with science fiction—some good, some bad, most of it in the forms of movies and T.V. A logical next step is to introduce students to science fiction short stories.

Why science fiction? When I first began to consider a topic for this unit, I felt almost apologetic for wanting to use science fiction with my students. I also had very little knowledge of the genre. Would such “low brow” literature be acceptable or appropriate? As I began my investigation, however, I was delighted to find that my concerns were unfounded and many of my prejudices were quite incorrect.

I began by looking for a definition of science fiction, but discovered that that is not as easy as it sounds. It is a recent genre, the term for which didn't become widespread until the 1930's when Hugo Gernsbeck began publishing “Astounding Stories.” There were, of course, earlier science fiction writers such as Poe, Verne, Wells and Shelley whose 19th century scientific romances serve as a link towards 20th century science fiction (Parrinder XIII, XVII).

Mark Rose, editor of *Science Fiction : A Collection of Critical Essays* , defines science fiction as the romance of the scientific age. For example, he sees similarities between the magic of a medieval legend and a “time warp.” He states that most science fiction narratives follow the quest romance pattern, and that the characters in a story can be looked at through their relationship to the quest (1, 3).

Another definition, much broader than Rose's, states that science fiction “covers every type of story in which the centre of attention is on the results of a possible, though not actual, change in the condition of life” (Rose 54). Critics of science fiction do not even agree on the use of the name “science fiction” for this genre. Sam J. Lundwall, in *Science Fiction : What It's All About* , states that “speculative fiction” would be a better name. He

also divides it into categories of space opera, fantasy, horror, sword and sorcery, social reform and New Wave (15, 16).

As I read further, I stopped looking for one tidy definition of this genre. What I began to find instead, over and over, was verification for using science fiction in the classroom. As I stated before, future studies are to prepare students for change. Science fiction “teaches adaptability and elasticity of mind in the face of change” (Lundwall 155). It performs “imaginary experiments” to see how people react to change before the change actually happens (Scholes and Rabkin 116). It provides a different perspective on our world (Rose 2). Very important, also, is the idea that science fiction writers see the future as a consequence of our present day. In this light, it is also a vehicle for social analysis and an opportunity to experiment with new concepts and their effects on man and the world (Lundwall 56, 141). Science fiction presents many issues from many different points of view for students to examine.

Perhaps the most cogent arguments in favor of teaching science fiction are presented by Ben Bova in *Viewpoint* in which he states the same idea as Kaufman: that much of what is taught in school is historically important, valuable, difficult and dull. Science fiction stands out “like a refreshing oasis of story and significance; a bad teacher must work hard to make it dull” (53). Good science fiction presents ideas and philosophies. It introduces themes of personal integrity, relationships—human and alien, other life forms and cultures, and our responsibility to technological change (Hoomes 3). It is interesting in and of itself, but it also presents ideas and alternatives. These arguments are all the same objectives for teaching future studies.

A word of caution here, however, about women in science fiction. Much of it still depicts women as “mother-children-and-kitchen.” A common attitude of some of the writers before 1970 is that women do not belong in science fiction but if they are, keep them in their place (Lundwall 145). While this is not as prevalent in more recent stories, and there are more women science fiction writers, some of the stories included in this unit do depict women in more “traditional” roles. There are, however, three stories that present women in other roles, and these can be used in contrast to the more traditional representations.

OBJECTIVES

1. To expose students to the concepts of future and change.
2. To encourage students to think about their own futures and the effects of change upon their lives.
3. To encourage students to predict possible alternatives for the future.
4. To expose students to a wide range of science fiction literature.
5. To examine themes of adventure, family, relationships, and technology and our responsibility to technology and change.
6. To develop organizational skills through record keeping.

STRATEGIES

This unit consists of twenty short stories written by a variety of authors. The stories to be read are:

Isaac Asimov—"Youth"

Ray Bradbury—"April 2026: The Long Years"

"August 2026: There Will Come Soft Rains"

"The End of the Beginning"

"The Gift"

"I Sing the Body Electric"

"The Million-Year Picnic"

"The Other Foot"

"R is for Rocket"

"The Rocket"

"The Rocket Man"

"The Strawberry Window"

"Time In Thy Flight"

"The Veldt"

James E. Gunn—"Child of the Sun"

Robert Heinlein—"Space Jockey"

Vonda N. McIntyre—"Of Mist, and Grass, and Sand"

Judith Merrill—"Dead Center"

Kurt Vonnegut—"Harrison Bergeron"

"Tomorrow and Tomorrow and Tomorrow"

As stated earlier, many science fiction writers see the future as a result of the present. While this unit is about the future, the teacher should keep in mind that in many of the stories I have chosen, there is a very definite concern for the present. The story settings may be at sometime in the future but based on what the author sees in the present. It is the author's concern for the direction he sees the world going in now that caused her or him to write this "predictive" fiction. Many of my discussion questions are based more on the present than the future, but it is my feeling that a student cannot begin to reflect on future issues without first thinking about what is happening right now.

Students will begin this unit by discussing science fiction and working towards an operational definition of science fiction for the purposes of this unit only. Many students do not realize that movies such as *Star Wars*, *Aliens* and *E. T.* are science fiction. The concepts I will work to get students to include in their definition are that it can be future-oriented, based on real scientific knowledge and predictive. I will do this by having the class brainstorm their ideas about the genre, and then their ideas can be incorporated into one definition which they will record and keep for further reference. I will also provide students with the idea that science fiction is a very broad category, that our definition is for our purposes only, and that while all of the stories we will read are science fiction, all of them may not fit our initial definition. After reading all of the stories, this same brainstorming process can be repeated to develop a broader definition based on their reading.

The students will next be provided a Science Fiction Reading Record (copy attached). This will require students to record each story they read as part of this unit and any science fiction stories or books they read independently, and write a brief (4-5 sentence) summary of each. This record keeping organizes the material on an ongoing basis, and provides a reference for future discussions. This is important in a once-a-week pull-out program. Most important, it will help students develop their ability to summarize, a skill difficult for many students.

The first story in this unit, "The End of the Beginning" by Ray Bradbury, suggests that space travel has marked the end of an era. Students should be asked to draw comparisons or contrasts between the advent of space travel and automobile travel and/or airplane travel, and to discuss the impact of these changes on our lives. In this story the father of the first space traveler is busy mowing the lawn. This activity is seen in many Bradbury short stories and students should discuss why the author would choose to have him doing this.

The next stories to be read are "Space Jockey" by Robert Heinlein and "R is for Rocket" by Bradbury. Both Jake Penberton and Chris want to be spacemen, but their ambitions are sometimes in conflict with family ties. The discussion should focus on resolving conflicts such as these. Which do the students think is more important: job ambitions or a strong family unit? Is it possible to have a high risk job and be very ambitious, and still have good family relationships? These questions are all open ended and not intended to have right or wrong answers. They are intended to motivate students to begin thinking about issues that may be new to them and to begin to develop some ideas about them.

These same questions can be discussed after reading "Rocket Man" by Bradbury and "Dead Center" by Judith Merrill. Both fathers in these stories die as a result of their jobs in space. Does this make them heroes? What was the effect of the father's job on the child in each story, on the wife? What was the effect of the fathers' deaths on other family members? These two stories are good ones also to look at the difference in the two mothers' roles. In "Dead Center" the mother helped design the rocket her husband flew in, while the mother in "Rocket Man" does not work outside of the home, and waits for months at a time for her husband to return. "Rocket Man" can also be used with "R is for Rocket" to look at some possibilities for technological advances that might be possible in our everyday lives. An activity to go along with this would be for the students to identify a problem (large or small) in everyday life and "invent a machine" to solve the problem.

"The Gift" and "The Rocket" both describe our fascination and appreciation of space, and our desire to travel into the unknown. Questions to ask the students are: why does Baldoni go to such extremes for his family, what are all the factors motivating him and was "the gift" really a gift? Both of the fathers in these stories gave gifts of space travel to their children. A writing assignment to go along with these stories would be to choose a family member and describe the perfect intangible gift for this person and explain why it is such.

"The Million Year Picnic", "The Strawberry Window" and "The Other Foot" all have utopian themes, and

describe families who live on Mars. In each story the inhabitants have left an Earth upon which they no longer wanted to live or felt safe to live. Discussion should begin with identifying the problems that caused these people to leave Earth. Are these problems that exist now? What is important about the strawberry window? Has the class ever heard the saying, “Looking through rose-colored glasses?” Does this apply here? The class should also be asked to think of groups of people of which they are aware that left their homelands to look for a better life. The concept of utopia can be introduced, and students can write a description of what they believe utopia is. Illustrations and maps might be encouraged to go along with this writing. A whole separate unit can be developed on utopias, but this small exercise can be used and perhaps expanded in the future.

“Harrison Bergeron” and “Tomorrow and Tomorrow and Tomorrow” are both by Kurt Vonnegut, and present a view of the future clearly based on his concern for the present. “Harrison Bergeron” depicts a society in which all people are made to be equal— intellectually, physically, and financially. What could be better? The students should decide why this world is not utopian. The ending of “Tomorrow and Tomorrow and Tomorrow” is wonderfully ironic as the younger Schwartzes are jailed for fighting for a bed in their overcrowded apartment, and finally find a bed and space of their own in jail. This can be discussed, and the students can be asked to look back over their past reading to identify other examples of irony.

All students are familiar with robots, and advancement in technology is one concept of the future they can easily grasp “There Will Come Soft Rains” and “The Veldt”, while very different in intent, describe societies in which extraordinary technological advancements have been made. There are many ideas in the stories for the students to explore. They should, based on their past readings, identify the somewhat more subtle irony in “There Will Come Soft Rains.” It will not be difficult for them to see that all the advancements in technology that are conceivable and beyond will be of no use if we are all destroyed in a nuclear war. The students can refer back to “The Million Year Picnic” and “The Other Foot”, to compare those stories’ messages about nuclear war. The class can be divided into two groups to debate the issue of the continued development of nuclear arms.

“The Veldt” presents different issues about the relationship between these parents and their children. The class should decide if the children’s hate for their parents is a result of the advanced technology that created their playroom. While technology improves our lives, the students can discuss what are some of the negative aspects of advancements in technology in our everyday lives.

“The Long Years” and “I Sing the Body Electric” are stories about robots. What are Hathaway’s needs that moved him to recreate his family in robot form? What were the needs of the family in “Body Electric”? Discussions from here can center around the family, the future of the family and what impact technological changes will have upon the family. The topic of the nuclear and extended family and their importance in today’s world can be discussed. Students can be asked to predict the future of robots in the home and in industry, and of course, design their own “perfect” robot, explaining all its features and drawing an illustration of it. There is also more than one robot factory in Connecticut, and a field trip can be arranged to one of these factories. More local trips can be arranged to manufacturers that use robots in their production process.

“Child of the Sun” and “Time in Thy Flight” introduce the students to a favorite science fiction theme: time travel. “Child of the Sun” also suggests an additional theme: predestination. The latter may well be a new concept for many of these students. When the children in “Time in Thy Flight” travel back in time it is obvious that, according to Bradbury, they are going back to “the good old days.” Were days past really better? A discussion can be centered around the following: if the students had an opportunity to travel in time, would they travel to the past or the future? What period exactly would they choose, and what are their reasons for

choosing it?

It might also be interesting to invite an old person from the immediate neighborhood to come in and speak to the class about his or her life growing up and the changes that have taken place. The recreation center for the elderly on Wooster Place has many people who have lived in that neighborhood their entire lives. My students and I have had impromptu conversations with several of them about the history of that area. They have wonderful stories to tell, and my students have been enthralled by their tales.

The surprise ending of Isaac Asimov's "Youth" provides a wonderful opportunity for students to think about alien life forms. Of course, they should discuss the possibility of life on other planets, perhaps in other galaxies. Along these same lines, an interesting discussion might center around why people are often afraid of others or events that are unknown or different, and often consider "different" to be "bad." Some of the cultural differences within the class might be looked at as well as some of the similarities. This story also presents an opportunity to teach students about the technique of foreshadowing. After reading the story the first time, the students should then go back and reread to identify all the clues to what is to come. The students can then be challenged to use this technique in a story of their own.

The last story, "Of Mist, and Grass, and Sand" is to be read and discussed separately because it is more fantasy than "hard" or "predictive" science fiction. I chose to include it because it is written by a woman, and the main character is a woman. Also, its distant time setting (past or future?), strange culture, and magical quality may have a different appeal to some students. It should be introduced as fantasy, and compared to the other stories to identify how it is different. Snake, the main character, is heroic in her efforts to save the young boy. How can her heroism be compared to the spacemen or perhaps the father in "Million Year Picnic", the Grandmother in "I Sing the Body Electric", or Bill Johnson in "Child of the Sun"? The students can brainstorm together to identify the qualities of a hero, and identify the characters they think possess heroic qualities.

Once all the stories have been read, these additional activities can end this unit. The first, using the Reading Record, is to identify major themes and ideas in all of the stories, and to group the stories accordingly. This will allow the students to review all of the stories, and tie them together. The last activity is the writing of a science fiction story. The elements of a short story should be presented to the class, and students must first develop their stories by describing in as much detail as possible the setting for their story, both time and place, the characters, main and supporting, who is the protagonist and the antagonist (these can be identified in some of the stories already read), and a description of the action. All of this can then be put together into the student's story. Illustrations can be encouraged.

Finally, before moving on to a new area, the students can look once again at their first definitions of science fiction. Based on their reading, they can, as a group, discuss any changes that the definition should have. The discussion can also include the student's perception of science fiction, and how it has changed as a result of this unit. They should also discuss their perception of the future and describe how their ideas have changed as a result of this unit.

Lesson Plan I

Objective to evaluate the personal qualities necessary to be a space explorer, to think of them in relationship to oneself, and to examine the role of family.

Procedure Read “R is for Rocket” and “Space Jockey”.

Discuss the following questions:

What is the effect upon the family of a person in a high risk job?

Should people in risky occupations be allowed to marry, have children?

What personal qualities (in detail, please) does a space explorer need to possess?

Keeping in mind the discussion questions, the students will next write their own resume applying for a job exploring space. The year is 1998. This should be a combination of creative writing and analysis of their own strengths and weaknesses as they see themselves now and in the future. Examples of resumes should be shown first so that they can use the format in their writing.

Once the resumes have been finished, the students can role play a job interview with one student being him or herself as portrayed in the resume, and the other student the person in charge of a large space agency. It might be interesting to try to pair up students with differing opinions about the requirements for this kind of job. The interviewer should be encouraged to really scrutinize the applicant’s resume to ask many questions and the applicant should act very eager to get the job.

A note to the teacher: these activities are very flexible and can be elaborated on as much as wanted. For example, the teacher can give the students a lot of information about resumes and job interviews before the role playing activities. Signs can be made up identifying the space agency. The interviewer can make up their own “business cards” to give the job applicants. The students can create futuristic costumes to wear during their interviews.

Lesson Plan II

Objective to identify future issues that are of concern to society and evaluate their importance.

Procedure

1. Read “Tomorrow and Tomorrow and Tomorrow” and “Harrison Bergeron”.
2. As a group brainstorm the issues that arise in these stories and list on the board.

3. Individually the students will prioritize the list from most to least important.
4. The students will discuss their choices and be prepared to explain why they prioritized as they did. Allow plenty of time for discussion and debate.

This is another example of a lesson that can be expanded upon depending on the interest of the class. For example, the students can compute percentages to determine what percent of the class prioritized an issue as their first concern, second, etc. Also, based on the list brainstormed, the class can develop a survey asking other people what they see as their concerns for the future. Once the surveys were distributed and collected, the possibilities for categorizing the information are many and varied, e.g ., by age, sex, occupations, area of residence, etc. Reports summarizing the surveys can be written.

Lesson Plan III

Objective to identify the qualities of a hero in the reading and in real life.

Procedure brainstorm together a list of qualities that a hero must possess. The teacher might want to discuss the definition of a hero in literature as one who overcomes seemingly overwhelming odds by sometimes miraculous methods. Most of these students are familiar with Odysseus and King Arthur and reference can be made to these two heroes of literature.

List all of the characters from all of the stories that were read that possessed heroic qualities and the reasons why they were heroic.

Brainstorm as a group a list of “real life” heroes, past and present, and state why that person was heroic.

Compare heroes in real life to those in literature to determine, if any, the similarities and differences.

The students should each choose a person from the list of real life heroes to research in detail. Each student should be prepared to make a presentation to the class by role playing the person they have chosen including wearing clothing that represents their hero.

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