Education

Science as Fiction

Destination L1: A Thematic Unit

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TEACHER GUIDE – LANGUAGE ARTS

BACKGROUND INFORMATION

Some call it "predictive fiction," while others term it the "romance of a scientific age." Ray Bradbury separates it from fantasy—a genre that he believes centers on the impossible—as opposed to fiction that may be even prophetic. We are talking about science fiction. The science of the Genesis mission lends itself well to language arts activities that use the genre of science fiction as a springboard. Two 1950s science fiction short stories by Ray Bradbury serve as a driver in this section. One of them is *The Golden Apples of the Sun*, in which a rocket is on a mission to scoop up a piece of the sun and return it home for study. The parallels to the Genesis mission are strong here—clearly with the caveat that both are on a quest, with the fiction piece still a good distance from predictive reality. The other is *The Wilderness*, which provides a good opportunity to study the implications for distance in space in the field of communications, and to contrast verbal vs. non-verbal communication.



Destitute Gulch, www.sci-fi.ch and Universal Pictures

Guy Montag is a fireman in Farenheit 451, whose job is to start fires.

NATIONAL LANGUAGE ARTS STANDARDS ADDRESSED

(Source - Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education—3rd Edition)

Grades 3-5

<u>Uses the general skills and strategies of the reading process.</u> Establishes a purpose for reading

Grades 6-8

<u>Uses the general skills and strategies of the reading process.</u> Establishes and adjusts purposes for reading

Grades 3-5

Uses reading skills and strategies to understand and interpret a variety of literary texts.

Uses reading skills and strategies to understand a variety of literary passages and texts Understands the basic concept of plot

Makes inferences or draws conclusions about characters' qualities and actions

Makes connections between characters or simple events in a literary work and people or events in his or her own life

Grades 6-8

Uses reading skills and strategies to understand and interpret a variety of literary texts.

Uses reading skills and strategies to understand a variety of literary passages and texts Understands elements of character development

Makes inferences and draws conclusions about story elements

Makes connections between the motives of characters or the causes for complex events in texts and those in his or her own life

Grades 9-12

Uses reading skills and strategies to understand and interpret a variety of literary texts.

Uses reading skills and strategies to understand a variety of literary passages and texts

TEACHER GUIDE: SCIENCE AS FICTION

GENESIS

Analyzes the simple and complex elements of plot in specific literary works Makes connections between his or her own life and the characters, events, motives and causes of conflict in texts

Grades 3-5

<u>Uses reading skills and strategies to understand and interpret a variety of informational texts.</u> Uses text organizers to determine the main ideas and to locate information in a text

Grades 6-8

<u>Uses reading skills and strategies to understand and interpret a variety of informational texts.</u> Uses reading skills and strategies to understand a variety of informational texts

Grades 9-12

<u>Uses reading skills and strategies to understand and interpret a variety of informational texts.</u> Uses reading skills and strategies to understand a variety of informational texts

(View a full text of the Content Knowledge: 3rd Edition Standards.)

MATERIALS

For each student:

Student Text, "<u>Science as Fiction: Worlds Colliding</u>"

🤊 GENESIS

For Part One:

- Copies of: The Golden Apples of the Sun
- Copies of: *The Wilderness*
- Student Activity, "Space Story: You are the Author"

For Part Two:

Student Activity, "<u>Getting to the Core of the Matter</u>"

PROCEDURE

For background information, ask students to read the Student Text "Science as Fiction: Worlds Colliding."

PART ONE

"A Space Story: You are the Author"

- 1. Provide students with a copy of each of the Ray Bradbury short stories, and ask them to read the stories.
- 2. After reading each story, ask the students to make a list of items in the short story that predict how our world might be different in the future, either with new technology or in its physical surroundings.
- 3. Ask the students to choose one of the two story introductions in the activity, "A Space Story: You are the Author," and complete the introduction.
- 4. After completing the introduction, students should finish their stories in their journals, or use an alternate method that you designate.
- 5. After review, ask students to share particularly innovative passages, stories, or "predictive technology" that are insightful.

PART TWO

"Getting to the Core of the Matter"

- 1. If they have not yet read Bradbury's *Golden Apples of the Sun,* ask students to read the short story, keeping the science objectives of the Genesis mission in mind.
- 2. Ask students to make a list of the different types of communication in the story. (Verbal, non-verbal, body language, inanimate, mechanical are all potential answers.)
- 3. Ask students to write their own definition of communication.
- 4. Assign students to small groups of four or five, where they will share their definitions. From individual definitions, ask each student group to compile a group definition.
- 5. Ask each group to write their definition on the board.

 \overrightarrow{O} **GENESIS**

- 6. Review each definition, compiling one class definition as you go. Modify as needed as more definitions are reviewed. Explain to students that it is all right to have more than one definition, but they have to determine which is the most common definition (1), followed by (2), and so on.
- 7. Ask students to go back to their original definition of communication. How would they now modify it? Are there any changes that they would make? If so, ask them to rewrite their definition. If non-verbal communication isn't listed, ask them to include it in their definition.
- 8. Ask students to indicate the non-verbal message or communication next to each expression or movement that they listed on their student activity sheet.
- 9. In small groups, students should create their own set of examples of body language that convey a meaning.
- 10. Ask students to present these non-verbal cues—without the use of facial expressions—to the class. Ask them to turn away from the class, so that their faces cannot be seen. Ask the rest of the class to guess what emotion is being conveyed with each type of body language. The goal is to try to convey 10 out of 10 tries.

TEACHER RESOURCES URLs

http://www.unknown.nu/mercury/

Audio file of Orson Welles' October 30, 1938 Mercury Theatre script: "War of the Worlds"

http://www.unknown.nu/mercury/

Audio file of Jules Verne's "Around the World in 80 Days" at the Mercury Theatre, October 23, 1938.