Unit 2/ Week 1

Title: *Who Can Replace a Man?*

Suggested Time: 5 days (45 minutes per day)

Common Core ELA Standards: RL.8.1, RL.8.2, RL.8.3, RL.8.4; W.8.2, W.8.4, W.8.9; L.8.1, L.8.2; SL.8.1

Teacher Instructions

**Preparing for Teaching**

1. Read the Big Ideas and Key Understandings and the Synopsis. Please do **not** read this to the students. This is a description for teachers about the big ideas and key understanding that students should take away **after** completing this task.

Big Ideas and Key Understandings

Without empathy and compassion, a society will not be able to sustain itself and thrive.

Synopsis

In *Who Can Replace a Man?,* Brian Aldiss describes a futuristic world in which machines are capable of thinking based on the tasks they have been designed to perform. One day the machines realize that the few remaining humans have died, leaving the machines to fend for themselves. Although the humans in this story have potentially gone extinct because of their own shortcomings, it is questionable whether the machines will be able to survive without the ability to express human-like emotions, such as empathy and compassion.

1. Read the entire selection, keeping in mind the Big Ideas and Key Understandings.
2. Re-read the text while noting the stopping points for the Text Dependent Questions and teaching Tier II/academic vocabulary.

**During Teaching**

1. Teach/reengage the idea of short story, science fiction, character, setting, conflict, resolution, etc. with your students.
2. Students read the entire selection independently; give them a guide or something to look for: difficult vocabulary, identifying images, or sensory detail, etc.
3. Teacher reads the text aloud while students follow along or students take turns reading aloud to each other.
4. Students and teacher re-read the text while stopping to respond to and discuss the questions, continually returning to the text. A variety of methods can be used to structure the reading and discussion (i.e., whole class discussion, think-pair-share, independent written response, group work, etc.)

Text Dependent Questions

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| **Text-dependent Questions** | **Evidence-based Answers** |
| In paragraph one, the author describes the setting with these sentences: “Morning filtered into the sky, lending it the gray tone of the ground below…Only the land was bad. Like the ground all over Earth, it was vitiated from over-cropping.“ (p. 248) What do these sentences tell you about where and when the story takes place? | These descriptions show that something bad has happened to Earth. The ground is so bad that it is gray and can’t grow any plants. This leads the reader to believe that this story takes place in the future when the environment has been completely damaged. |
| On page 248 the author states: “…the field-minder …was intelligent enough to appreciate neatness all about it. Nothing worried it…No other machines passed on its way back to the Agricultural Station” What clues does this give to the reader about the characters in this story?  | These details tell the reader that at least some of the characters in the story are machines. Because it says the field-minder “was intelligent enough to appreciate neatness” this means that these machines are capable of some degree of thinking. |
| What information from page 249 tells the reader about the machines and their capabilities? What are the implications of this? | This shows that the machines have been created or programmed to do only certain things. Each machine has certain capabilities but cannot do anything beyond their “class.” On page 249, the field-minder states that since “I have a Class Three brain…I am superior to you.” This means that it will be impossible for the machines to learn anything new that they haven’t been programmed to do. |
| When the field-minder goes to find out why the unlocker had not come to unlock the store, what did he find? (p. 250) | The field-minder finds that none of the machines could do their jobs because they had received no orders. |
| What “logical deduction” (p. 251) does the field-minder make based on the lack of orders for the day?  | The field-minder deduces that “all the men have broken down,” meaning that the humans have died, leaving the machines on their own. |
| When the machines realize that the humans are gone, the field-minder says, “We have replaced man.” (p. 251) What are the implications of this statement? What does this statement foreshadow?  | As there are no more humans to give orders, this statement foreshadows that the machines will now try to take over to create their own society. |
| When the machines have broken down the fence, the penner and field-minder say, “We are free.” (p. 255) How does this statement show you what they had thought about doing humans’ work before? | The fact that the two machines seem so happy about being free shows that they were aware of how much work they did for the humans and the fact that they could only do what the humans told them to do. It suggests that the machines may have wanted to be free before. |
| Read this quotation from page 255, “’It is better that men should never come back,’ said the penner. In its way it was a revolutionary statement.” Discuss in what way the penner’s comment can be seen as revolutionary.  | The penner’s comment was revolutionary because it shows the machines believe they are capable of taking care of themselves. At least some of them now think they can create a better society for themselves without humans to make them work. |
| What do the characters' action on page 255 reveal about their way of thinking? How do these actions show that they think differently from humans? | On page 255, as the penner, field-minder, seed-distributor, unlocker, and radio operator start to leave the field, they see a locker following them. This machine has not been instructed to follow them, so they destroy it without waiting to see why it has followed them or without concern for the locker’s well-being or “feelings.” This demonstrates that the machines are different from humans because in a group of humans, some people might have said that such an action would be wrong or cruel to “kill” the machine instead of talking to it. |
| The penner say “It is better that men should never come back.” (p. 255) What could he have meant by this? | The penner says this because the machines are beginning to feel that they will be better leaders than the humans have been. The machines will not have to worry about the humans but only take care of themselves. At this point in the story, the penner believes they can do this. |
| On page 256, the machines try to decide where they are going to go. What does the reader learn from the way the machines discuss their ideas and decisions? | The way the machines talk show that the machines are capable of different kinds of thinking depending on the “class” of their brains. For example, the quarrier keeps saying that he has a “good supply of fissionable blasting material” without changing his sentences. This shows that he is capable of only this literal thinking. On the other hand, the penner, field-minder and operator are able to analyze the situation and draw conclusions about what place would be the best for them. For instance, when one of these machines says, “We are country machines” another one replies, “Therefore we should stay in the country.”  |
| On page 257 the Badlands are described with “ancient bomb craters and soil erosion”. What does this description tell you about what had happened to human society?  | The Badlands were obviously created because of horrible wars and improper farming techniques. This shows the reader that the humans had not paid attention to what damage they were doing or what the consequences of this damage would be. |
| As the machines travel through the Badlands on page 257, the text states, “’There we will start our own city,’ said the penner. ‘All who oppose us will be destroyed.’” What does this say about the machines? Are they the same or different from the humans who created them? | The machines are showing the same kind of “human” thinking has destroyed the human society of the past. This is illustrated by the fact that “man’s talent for war, coupled with his inability to manage forested land, had produced thousands of square miles of temperate purgatory, where nothing moved but dust.” (p. 257) This description leads the reader to think that the machines may have “learned” such thinking from their human masters. |
| On page 259, the penner’s gyro is broken and he can’t get up. What do their actions after the penner breaks down reveal to the reader? | The other machines leave him behind because he is broken and therefore “of no further use.” (p. 259) to the other machines. This shows that with their logical thinking they have no sense of camaraderie or empathy for each other. |
| At the end of the story, the machines find one human being. Even though he is “ravaged by starvation” (p. 260) as soon as he gives a command to the machines to get him food, they immediately reply, “Yes, Master…Immediately.” (p. 260) What does this tell you about the relationship between humans and machines?  | This interaction shows that in the story humans have become used to machines doing everything for them that they can’t get their own food. They also believe whatever command they give will result in getting whatever they want. The man commands the machines to get food even though they are in the Badlands where nothing can grow. Therefore, the machines may not be able to give him what he wants. This also shows that although the machines think they are now free, as soon as a human commands them, they instantly obey. This proves that they are not free, but are still controlled by the humans. |

Tier II/Academic Vocabulary

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|  | **These words require less time to learn**(They are concrete or describe an object/event/process/characteristic that is familiar to students) | **These words require more time to learn**(They are abstract, have multiple meanings, are a part of a word family, or are likely to appear again in future texts) |
| **Meaning can be learned from context** | Page 248: VitiatedPage 248: FallowPage 251: Logical deductionPage 251: SpeculativelyPage 251: BerserkPage 251: AimlesslyPage 254: ImmensePage 255: ExtinctPage 260: Ravaged | Page 249: ClassPage 249: OperativePage 249: Idly, Vastly, SuperiorPage 250: LiteralPage 250: InformativePage 250: Conversing, UnprecedentedPage 257: Temperate purgatoryPage 260: Abject figurePage 260: Mutual Consent, Desolate |
| **Meaning needs to be provided** | Page 248: AgriculturalPage 248: NuclearPage 256: Fissionable | Page: 250: Non-differentiated, RespectivelyPage 252: YearninglyPage 255: RevolutionaryPage 256: Grave, Sober |

Culminating Writing Task

* Prompt

*In “Who Can Replace a Man?,” the machines are trying to deal with the fact that their human operators have disappeared. What do the machines’ actions tell the reader about the relationship between the machines and humans? Write a multi-paragraph essay explaining how this relationship relates to the author’s theme or central message of the text, including textual evidence and citations.*

* Teacher Instructions
1. Students identify their writing task from the prompt provided.
2. Students will complete an evidence chart as a pre-writing activity. Teachers should guide students in gathering and using any relevant notes they compiled while reading and answering the text-dependent questions earlier. Some students will need a good deal of help gathering this evidence, especially if this process is new.

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| ***Evidence******Quote or paraphrase*** | ***Page number*** | ***Elaboration / explanation of how this evidence supports ideas or argument*** |
| “We are free.” | Page 255 | The two machines seem happy about being free because they were aware of how much work they did for the humans and the fact that they could only do what the humans told them to do. |
| “We have only ourselves to look after.” | Page 255 | It suggests that the machines may have wanted to be free before and resented the fact that they had to take care of the humans. |
| ‘ “It is better that men should never come back,” said the penner. In its way, it was a revolutionary statement. ‘(p. 255)  | Page 255 | The machines are beginning to feel that they will be better leaders than the humans have been. These particular machines feel like they are better able to rule the other machines because their brains are higher class. This is revolutionary because humans were the ones who created the machines and until this moment they have been in control. The fact that the machines think they can run everything without the humans shows how much the machines can think for themselves. |
| “My only desire was…”  | Page 255 | The other machines don’t care why the locker is following them. They destroy it without giving it a chance to explain, which shows a lack of caring for others’ ideas and a focus on the literal rules. |
| “There we will start our own city”, said the penner. “All who oppose us will be destroyed.” | Page 257 | Like the humans before them, he machines are showing the same kind of thinking that had led to so many wars, wars that have destroyed the human society of the past. It leads the reader to think that the machines may have “learned” such thinking from their human masters. |
| “man’s talent for war, coupled with his inability to manage forested land, had produced thousands of square miles of temperate purgatory, where nothing moved but dust.”  | Page 257 | As the machines move through the Badlands, they encounter the damage done to the Earth by humans’ wars and neglect of the environment. |
| “Therefore I shall lie here and rust”, the penner cried, “although I have a Class Three brain.” Therefore, you will be of no further use,” agreed the operator. | Page 259 | Even though the penner was one of the leaders of the expedition, the machines don’t care and leave him behind when his gyro is broken. This is ironic because it was the penner who thought it was better that there were no humans left even though the humans would have fixed him.This also demonstrates that with their logical thinking the machines have no sense of camaraderie or loyalty.  |
| “Yes, Master,” said the machines. “Immediately!” | Page 260 | As soon as the human gives the machines a command, they revert to their former selves and begin to do his bidding. |

1. Once students have completed the evidence chart, they should look back at the writing prompt in order to remind themselves what kind of response they are writing (i.e. expository, analytical, argumentative) and think about the evidence they found. (Depending on the grade/reading level, teachers may want to review students’ evidence charts in some way to ensure accuracy.) From here, students should develop a specific thesis statement. This could be done independently, with a partner, small group, or the entire class. Consider directing students to the following sites to learn more about thesis statements: http://owl.english.purdue.edu/owl/resource/545/01/ OR http://www.indiana.edu/~wts/pamphlets/ thesis\_statement.shtml.
2. Students compose a rough draft. With regard to grade level and student ability, teachers should decide how much scaffolding they will provide during this process (i.e. modeling, showing example pieces, sharing work as students go).
3. Students complete final draft.
* Sample Answer

In *Who Can Replace a Man?,* the reader is introduced to Earth in the future. In this world, machines can talk and think for themselves. The Earth has been ravaged by human-created wars and terrible environmental disasters. One day the humans who give orders to the machines are gone, leaving the machines to fend for themselves. In this situation, some machines run amuck, unable to do anything about their situation. But for those machines with higher-class brains, analyzing their new condition and trying to solve their predicament is not beyond them. When the penner says, “We have only ourselves to look after,” (p. 255) the reader realizes that machines of his class see this differently, feeling that they are now free and now no longer have to take care of those humans.

However, as the story progresses, it becomes evident that even these higher-thinking machines are missing important characteristics that could hinder their ability to create their own society. Most importantly, the machines show an inability to feel empathy or compassion for each other. This is first illustrated when a group of machines, led by the penner, decide to leave. As they do, a locker follows them. Because it was not instructed to follow, the penner decrees that the locker must be destroyed. The machines do this even as the locker cries, “My only desire was…” (p. 255), leaving the reader wondering what the locker wanted and why the other machines wouldn’t take the time to find out, which shows a lack of caring for others’ ideas and a focus on the literal rules.

This same thinking continues as the machines think about their futures. When the penner says they will start their own city, he says, “All who oppose us will be destroyed.” (P. 257) Like the humans who created him, the penner can think only of dominating, not working together with others. His thoughts and actions sound very much like those that caused the wars that did so much destruction to Earth.

The importance of caring about others is brought home to the reader when we learn the fate of the penner. Because it was the penner who showed no compassion to others in their “revolution”, the reader is surprised at the end of the story. His gyro breaks and he can’t move, so the others leave him. ‘ “Therefore I shall lie here and rust’, the penner cried, “although I have a Class Three brain.” “Therefore, you will be of no further use,” agreed the operator.’ (p. 259) Even though he was one of the leaders of the expedition, the machines don’t care and leave the penner behind. This is ironic because it was the penner who thought it was better that there were no humans left even though the humans could have fixed him. This demonstrates that with their logical thinking, unlike humans, the machines have no sense of camaraderie or loyalty.

Another irony of the story is that the reader questions whether the inability to empathize or care for others is the reason human beings and their world are in such peril in the story. There are numerous references to the wars and abuse of the natural world that caused such devastation. As the machines move through the Badlands they find that “man’s talent for war, coupled with his inability to manage forested land, had produced thousands of square miles of temperate purgatory, where nothing moved but dust.” (p. 257) Since these same humans created the machines now in control, is it the humans’ fault that the machines have no emotions? This idea makes the reader question if either human or machine would be able to control society in a positive way.

In the end, the machines encounter a human being who commands them to find food for him. As soon as he does, they comply. ‘ “Yes, Master,” said the machines. “Immediately!” ‘ (p. 260) This shows that although the machines thought they were free, as soon as a human commands them, they instantly obey. They are not free, but are still controlled by the humans. This also demonstrates that in the story humans have become so used to machines doing everything for them that they can’t survive without their machines. They believe whatever command they give will result in getting whatever they want. The man commands the machines to get food even though they are in the Badlands where nothing can grow. Therefore, the machines may not be able to give him what he wants.

In this story, humans have damaged Earth, but unlike the machines, they also have the ability to grow and change if they try. The machines may do all the work but they have no feelings for each other and can’t repair themselves without human intervention. Could they create their own machine society without these skills? Will the human beings learn from the mistakes of their violent past? The reader is left questioning whether either machines or humans will be able to survive in this inhospitable world created by human hands and kept going by the machines.

Additional Tasks

* “Who Can Replace a Man?” Compare and Contrast. Students can watch clips of various science fiction movies that deal with the relationships between humans and machines. Use this link to a slideshow including clips and writing prompts (<http://prezi.com/p-hoiinabsft/who-can-replace-a-man/>), or use your own.

The movies and prompts included are:

* + *I, Robot* – How are the robots in this movie trailer similar to the machines of the short story? How are they different?
	+ *Terminator 3, Rise of the Machines* – In this clip, machines have taken over the military and begin attacking humankind. How is the relationship between the humans and machines different in this clip and the short story?
	+ *Wall-E* – Look for the similarities and differences between “Who Can Replace a Man?” and the following video clip.
	+ *A.I.: Artificial Intelligence* - Look for the similarities and differences between “Who Can Replace a Man?” and the following video clip.
	+ *Transformers* - Look for the similarities and differences between “Who Can Replace a Man?” and the following video clip.
	+ *The Iron Giant* - Look for the similarities and differences between “Who Can Replace a Man?” and the following video clip.
* Sample Answer
	+ In the short story *Who Can Replace a Man*, machines can now talk and think for themselves. Some machines have more complex brains than others; when these higher functioning machines find that their human creators may have gone extinct they decide to create their own society. On the other hand, in the clip from the movie *I, Robot,* the human race is still alive. The movie shows the time when machines have begun to outnumber humans. While in the short story, the machines have never harmed a human being; in the movie there is suspicion that one of the robots has murdered a person.

Supports for English Language Learners (ELLs) to use with Anthology Alignment Lessons

When teaching any lesson, it is important to make sure you are including supports to help all students. We have prepared some examples of different types of supports that you can use in conjunction with our Anthology Alignment Lessons to ensure ELLs can engage fully with the lesson. While these supports reflect research in how to support ELLs, these activities can help ALL students engage more deeply with these lessons. Note that some strategies should be used at multiple points within a lesson; we’ll point these out. It is also important to understand that these scaffolds represent options for teachers to select based on students’ needs; it is not the intention that teachers should do *all* of these things at every lesson.

**Before reading:**

* Read passages, watch videos, view photographs, discuss topics (e.g., using the [four corners strategy](http://www.theteachertoolkit.com/index.php/tool/four-corners)), or research topics that help provide context for what your students will be reading. This is especially true if the setting (e.g., 18th Century England) or topic (e.g., boats) is one that is unfamiliar to the students.
* Provide explicit instruction, using multiple modalities, on selected vocabulary words that are *central to understanding the text*. When looking at the lesson plan, you should note the Tier 2 words, particularly those words with high conceptual complexity (i.e., they are difficult to visualize, learn from context clues, and are abstract), and consider introducing them ahead of reading. For more information on selecting such words, go [here](https://achievethecore.org/page/3167/selecting-and-using-academic-vocabulary-in-instruction). **You should plan to continue to reinforce these words, and additional vocabulary, in the context of reading and working with the text. (See additional activities in the During Reading and After Reading sections.)**

**Examples of Activities:**

* Provide students with the definition of the words and then have students work together to create [Frayer models](http://www.theteachertoolkit.com/index.php/tool/frayer-model) or other kinds of word maps for the words.
* When a word contains a prefix or suffix that has been introduced before, highlight how the word part can be used to help determine word meaning.
* Keep a word wall or word bank where these new words can be added and that students can access later.
* Have students create visual glossaries for whenever they encounter new words. Then have your students add these words to their visual glossaries.
* Create pictures using the word. These can even be added to your word wall!
* Create lists of synonyms and antonyms for the word.
* Have students practice using the words in conversation. For newcomers, consider providing them with [sentence frames](https://achievethecore.org/page/3159/ell-supports-for-writing-and-discussion) to ensure they can participate in the conversation.
* Use graphic organizers to help introduce content.

**Examples of Activities:**

* Complete a [Know, Want to Learn, Learned (KWL) graphic organizer](http://www.nea.org/tools/k-w-l-know-want-to-know-learned.html) about the text.
* Have students research the setting or topic and fill in a chart about it. You could even have students work in groups where each group is assigned part of the topic.
* Fill in a bubble map where they write down anything that they find interesting about the topic while watching a video or reading a passage about the topic. Then students can discuss why they picked the information.

**During reading:**

* Allow ELLs to collaborate in their home languages to process content before participating in whole class discussions in English. Consider giving them the discussion questions to look over in advance (perhaps during the first read) and having them work with a partner to prepare.
* Allow ELLs to use English language that is still under development. Students should not be scored lower because of incorrect spelling or grammar (unless the goal of the assignment is to assess spelling or grammar skills specifically). When grading, be sure to focus on scoring your students only for that objective.
* Scaffold questions for discussions so that questioning sequences include a mix of factual and inferential questions and a mix of shorter and more extended responses. Questions should build on each other and toward inferential and higher order thinking questions. There are not many factual questions already listed in the lesson instructions, so you will need to build some in as you see fit. More information on this strategy can be found [here](https://achievethecore.org/aligned/creating-sequencing-text-dependent-questions-support-english-language-learners/).
* Provide explicit instruction, using multiple modalities, on selected vocabulary words (e.g., 5–8 for a given text) that are central to understanding the text. During reading, you should continue to draw attention to and discuss the words that you taught before the reading.

**Examples of Activities:**

* Have students include the example from the text in a student-created glossary.
* Create pictures that represent how the word was used in the passage.
* Create sentences using the word in the way it was used in the passage.
* Have students discuss the author’s word choice.
* Examine important sentences in the text that contribute to the overall meaning of the text.
* Examine sentence structure of a particular sentence. Break down the sentence to determine its meaning. Then determine how this sentence contributes to the overall meaning of the passage. Determine if there is any figurative language in the sentence and have students use context clues to determine the meaning of the figurative language.
* Use graphic organizers to help organize content and thinking.

**Examples of Activities:**

* While reading the text, have students fill in a story map to help summarize what has happened.
* Have students fill in an evidence chart while they read to use with the culminating writing activity. Make sure to model with the students how to fill in the evidence chart by filling in the first couple of rows together as a class. Go over the prompt that the evidence should support, making sure to break down what the prompt means before having the students get to work. If some of your students frequently struggle to understand directions, have the students explain the directions back to you.
* Provide somewhere for students to store new words that they encounter. Students could use a chart to keep track of these new words and their meanings as they read.
* If you had students start a KWL before reading, have them fill in the “L” section as they read the passage.

**After reading:**

* Reinforce new vocabulary using multiple modalities.

**Examples of activities:**

* Using the words that you had students work with before the reading, require students to include the words in the culminating writing task.
* Create Frayer models with the words. Then cut up the Frayer models and have the students put the Frayer models back together by matching the pieces for each word.
* After reading the passage, continue to examine important sentences (1–2) in the text that contribute to the overall meaning of the text. Guide students to break apart these sentences, analyze different elements, and determine meaning. More information on how to do this, including models of sentence deconstruction, can be found [here](https://achievethecore.org/page/3160/juicy-sentence-protocol).
* When completing the writing assignments after reading, consider using these scaffolds to support students depending on their English proficiency.

**Examples of Activities:**

* For all students, go over the prompt in detail making sure to break down what the prompt means before having the students get to work. Then have the students explain the directions back to you.
* Have students create an evidence tracking chart during reading, then direct them to look back over their evidence chart and work with a group to see if their evidence matches what the rest of the class wrote down. If some of the chart does not match, students should have a discussion about why.
* For students who need more support, model the proper writing format for your students and provide them with a properly formatted example for reference.
* For newcomers, you may consider creating sentence or paragraph frames to help them to write out their ideas.