**Name**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Homeroom**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **Class: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

## “Robbie” (pp. 19-23) “His eyes glowed, a deep, deep red”

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| **Lesson Objective:** Consider how Asimov’s views on science fiction influence his narrative choices. |

Do Now

**Directions**: Read the article below and answer the questions that follow.

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| Isaac Asimov Isaac Asimov was born in 1920 in the Soviet Union. Although his father made a good living, changing political conditions led the family to leave for the United States. Asimov earned a B.S. and M.A. from Columbia University. He was initially denied admission his freshman year because of a quota system that limited the admission of Jewish students. However, he went on to earn a Ph.D. in chemistry from Columbia in 1948. By 1950, he became a professor at the Boston University School of Medicine.  In Asimov’s science fiction writing, he is perhaps most well-known for his Three Laws of Robotics. While he developed these rules to be used in his science fiction stories, actual robotics engineers have used the Three Laws in programming their robots.  *Isaac Asimov, 1959*   1. A robot may not injure a human being or, through inaction, allow a human being to come to harm. 2. A robot must obey the orders given it by human beings except where such orders would conflict with the First Law. 3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Laws.   By developing this set of ethics for robots and rejecting previous conceptions of them as violent metal monsters, Asimov greatly influenced other writers’ treatment of the subject. Beyond the world of science fiction, Asimov’s laws have become standard when discussing ethical questions about the engineering of future robots. |

1. Where have we seen evidence of these Three Laws of Robotics in “Robbie”? Brainstorm as many examples as you can.
2. How have Asimov’s Three Laws influenced other writers and scientists?

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**Retrieval Practice**

Make sure to use the word or phrase in your answer to show your understanding of it!

1. Name one **futuristic** technology in “Robbie.”
2. What **term** describes fiction in which the “laws” of the world are different than ours?
3. In what year was “**Robbie**” first published? **Challenge**: What was the story’s original name?
4. Explain the **irony** of Asimov’s depiction of 1998.
5. What happened to the **Talking** **Robot**? Why?

Score: \_\_\_\_\_\_\_\_\_\_\_ / 6

##### Pages 19-20: On Your Own

**Annotation Task:** As you read, annotate any evidence of Mr. Weston’s new plan. What does he want to do for Gloria? Why does he think this will work?

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| Notes |

1. Reread Mr. Weston’s statement from p. 19:

*“All right. Here’s what I’ve been thinking. The whole trouble with Gloria is that she thinks of Robbie as a* person *and not as a* machine*. Naturally, she can’t forget him. Now if we managed to convince her that Robbie was nothing more than a mess of steel and copper in the form of sheets and wires with electricity its juice of life, how long would her longings last? It’s the psychological1 attack, if you see my point.”*

1**psychological**: affecting the mind; related to the mental and emotional state of a person

1. Mr. Weston says, “**Naturally**, she can’t forget him.” The word **natural** refers to what is found in or produced by nature as well as what’s normal or expected. Why might he think it is “natural” for Gloria to be unable to forget Robbie?

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1. Explain the “psychological attack” Mr. Weston is proposing. How will this attack change what is “natural” for Gloria? **Challenge**: Why might he use the word “attack” rather than a word like “approach” or “strategy”?

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1. **Turn and Talk**: Do you think this “attack” will be successful? Why or why not?

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| **Labor unions** are organized associations of workers in a trade or profession, formed to protect and further their rights and interests. The **labor movement** in the United States grew out of the need to protect the common interest of workers. For those in the industrial sector, organized labor unions fought for better wages, reasonable hours and safer working conditions in factories, mines, and other work environments. |

1. Reread these lines from p. 20:

***Pince-nez*** *are eyeglasses that clip to the nose*

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| *“[H]aven’t you a section of the factory where only robot labor is employed?”*  *“Eh? Oh, yes! Yes, indeed!” He smiled at Mrs. Weston. “A vicious circle in a way, robots creating more robots. Of course, we are not making a general practice out of it. For one thing, the unions would never let us. But we can turn out a very few robots using robot labor exclusively, merely as a sort of scientific experiment. You see,” he tapped his pince-nez into one palm argumentatively, “what the labor unions don’t realize—and I say this as a man who has always been very sympathetic with the labor movement in general—is that the advent1 of the robot, while involving some dislocation² to begin with, will inevitably —”*  1**advent**: the arrival of a notable person, thing, or event  2**dislocation**: disturbance or disruption from a proper, original, or usual place or state |

1. What is Mr. Struthers referring to when he says, “the unions would never let us”? Who does the pronoun “us” refer to? What will the unions “never let” them do? **Challenge**: How might he finish his sentence?

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1. Why might the unions be so opposed to robot labor? Consider Mr. Struthers’s use of the word “**dislocation**.” Who or what might be **dislocated** by the “advent of the robot”? **Challenge**: What broader attitude toward new technologies might the labor unions be exemplifying?

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**Pages 20-23**

1. **Turn and Talk**: Explain the story’s **twist ending**. What was Mr. Weston’s actual plan?
2. Reread this moment from p. 21:

*“Robbie!” Her shriek pierced the air, and one of the robots about the table faltered and dropped the tool he was holding. Gloria went almost mad with joy. Squeezing through the railing before either parent could stop her, she dropped lightly to the floor a few feet blow, and ran toward her Robbie, arms waving and hair flying.*

1. Consider the moment when “one of the robots about the table faltered and dropped the tool he was holding.” What might Asimov be indicating about Robbie with this action?

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1. Recall Mr. Weston’s previous description of Robbie on p. 19:

*“Now if we managed to convince her that Robbie was nothing more than a mess of steel and copper in the form of sheets and wires with electricity its juice of life, how long would her longings last?”*

How might this scene contradict Mr. Weston’s perspective? Is there “more” to Robbie than a “mess of steel and copper”? Explain your thinking.

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1. In one artful sentence, describe Robbie’s rescue of Gloria. Begin your response with the word “As.” **Challenge**: Include the phrase “only human” from p. 21.

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1. Reread the story’s final paragraphs (pp. 22-23):

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| Grace Weston considered. She turned toward Gloria and Robbie and watched them abstractedly for a moment. Gloria had a grip about the robot’s neck that would have asphyxiated any creature but one of metal, and was prattling nonsense in half-hysterical frenzy. Robbie’s chrome-streel arms (capable of bending a bar of steel two inches in diameter into a pretzel) wound about the little girl gently and lovingly, and his eyes glowed, a deep, deep red.  *“Well,” said Mrs. Weston, at last, “I guess he can stay with us until he rusts.”* |

1. Parentheses are used to offset text that isn’t essential to the meaning of the sentence. Annotate the parenthetical statement in the excerpt above. Why might Asimov have chosen to include the parenthetical information in this moment?

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1. Contrast Gloria’s grip on Robbie with the way Robbie holds Gloria. What might this **juxtaposition** be meant to convey?

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1. **Turn and Talk**: Why might Mrs. Weston have mentioned “rust” in her final line?

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| **Excerpted from “A Conversation with Isaac Asimov”**  *By Earl G. Ingersoll, ed., published in Science Fiction Studies, 1987*  *The following quotations are excerpted from an interview with Isaac Asimov about his perspective on science fiction.*   * By my own definition, science fiction is the branch of literature which deals with the response of human beings to changes in the level of science and technology. * I don't like change that upsets my well-worn way of life, but I do know that change will take place. I may not like it, but I'm not outraged. […] Unfortunately, too many people just take it for granted that things won't change or that if they do they shouldn't, and you should make every effort to restore the status quo. As a result, we're not prepared for the changes, and we make no effort to direct them in optimum fashion. We're going to be overwhelmed in a couple of generations by the changes that are now taking place, most of which are undesirable. Unless we can look these changes boldly in the face, try to figure out what we ought to do to prevent these undesirable changes and to bring about desirable ones, to think hard about distinctions between desirable and undesirable ones, we are certainly going to go under. * Science Fiction does not simply talk about change as an abstract thing. Every SF story describes a certain, particular change and decides whether it's for the better or the worse. Generally in SF stories the change is for the worse, or threatens to be for the worse, not because SF writers are essentially pessimistic, not because change is essentially for the worse, but only because this makes for a more dramatic story. SF teaches that there are numerous changes and that mankind by its actions can pick and choose among them. We should choose one which is for the better. That is the proper interpretation of the role of SF. |

1. **Turn and Task**: Annotate any evidence of Asimov’s attitude toward changes in technology and society. How would you describe his perspective?

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| **Notes** |

1. What does Asimov see as the role of science fiction? Explain your thinking.

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## Summative Writing

**Prompt**: How does Isaac Asimov’s story “Robbie” reflect his perspective on the role of science fiction in society? In a 1-2 paragraph response that includes evidence from both the short story and the article, explain:

* Asimov’s perspective on technological change and science fiction
* The ways in which “Robbie” reflects that perspective

You may use this chart to organize your thinking:

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| **“Robbie”** | **“A Conversation with Isaac Asimov”** |
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**Homework**

**Directions**: Read the article below and answer the questions that follow.

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| **Don't Fear the Robot Overlords—Embrace Them as Coworkers**  *Excerpted from Wired.com*  By Matt Simon  In a chilly warehouse just outside of Boston, the brute toils away. It’s 600 pounds of orange and black metal and whirring motors, a massive robotic arm that picks up car parts and places them on a table. Like its ancestors have done for decades, this industrial robot does the heavy lifting that no human worker could manage, and it does so with extreme speed and precision.  Unlike its forebears, though, this industrial robot isn’t confined to a cage: Most factory robots work in enforced solitude to make sure their human colleagues stay safe. This machine is working right alongside a human laborer. The robot places a part on the table, and the worker tightens bits with a wrench. When he’s done, the robot picks the part back up and takes it away.  As the duo collaborates, roboticist Clara Vu does what was until recently considered very dumb: She crosses a neon orange line on the ground that marks the robot’s territory. Instead of giving her a head injury, the machine sees her and stops, and only resumes once Vu has backed away. The robot is no brute, it turns out. It’s the coworker of tomorrow.  This warehouse is Veo Robotics’ R&D center, where a very different narrative about the future of work is taking shape. Worrywarts like Elon Musk fear a future in which AI and robotics cause mass unemployment and existential doom for the human race. But in factories across the world, machines are beginning to work more intimately with humans without sending them to the unemployment line—or the grave.  The reality is that while robots are great at some things, they still fail miserably at others. “Robots can be bigger, stronger, faster, more precise than people,” says Vu, co-founder and vice president of engineering at Veo Robotics. “But they're not going to be more flexible, more dexterous. They're not going to have that for decades, centuries, who knows.”  Sure, you might be able to figure out how to automate car part assembly from start to finish. But for the time being, it’s more efficient to involve a human worker. Robot arms can lift thousands of pounds over and over, but they still struggle with fine manipulation.  What they are getting better at, though, is sensing their world. Veo takes a range of robotic arms and essentially builds a larger robotic system around them. Engineers surround the robotic arm with time-of-flight cameras, which calculate distance based on the speed of light, and monitor the area for humans. The camera data is used to calculate the moment when a robot should stop moving, depending on what it’s doing and its distance to a human, says Patrick Sobalvarro, CEO and co-founder of Veo. “The stopping distance for a robot that's carrying a ton of stuff is probably a meter,” whereas a smaller arm might just need a few centimeters. Either way, the system will order the arm to first slow, then stop when approaching what it thinks is a human.  But in these early days of collaborative robotics, even this new tool is bound by strict limitations. What Veo has built is a structured environment in which the robot can carry out structured tasks—the only reason it can collaborate with a human is because its work is predictable. In the future, though, we’ll want machines that can work with us in less structured environments like the home. Say, a robot that hands you pieces as you construct an Ikea chair. In that case, you want it to act like a human, perhaps following verbal commands or even recognizing that you want a part just by seeing you point at it.  But might the machines eventually turn on us as they grow adept, replacing humans in the workplace entirely? Automation always destroys jobs—pretty much everyone used to be a farmer until mechanization came along. But that didn’t happen over the course of a week. Technology arrived and slowly farmers became factory workers.  Take as an example a modern factory in Austria that produces very large, very expensive generators. “I walked into this factory, and first I was struck by how few people there were,” says R. David Edelman, director of the Project on Technology, Economy, and National Security at MIT. “Which sort of jelled with my expectation.” These generators use precision-milled components, after all, work that’s best suited for robots.  But then the foreman led Edelman to the other side of the factory, which was crammed full of workers who had the dexterity to assemble those components. “So I asked the foreman, ‘How much longer until all of these people are unemployed?’ And he points to the last guy on the line, who was a young guy, and he said, 'About the time that he retires.'”  That factory stands as a monument to the power of robots and to the limitations of that power. Machines of all kinds have long put humans out of work, but they’ve also become our coworkers. And now more than ever, we’re working right alongside us as they grow more sensitive to our biggest limitation: We’re fragile—oh so fragile. |

1. What is the purpose of the article’s first three paragraphs?

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1. In one artful sentence, explain the benefits and drawbacks of robot labor.

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