

## ELA.08.PT.2.07.161 C2 T7

Sample Item Id:	<b>ELA.08.PT.2.07.161</b>
Title:	Robot Pets
Grade/Model:	8/3
Claim(S):	<p><b>Primary Claims</b></p> <p>1: Students can read closely and analytically to comprehend a range of increasingly complex literary and informational texts.</p> <p>2: Students can produce effective and well-grounded writing for a range of purposes and audiences.</p> <p>4: Students can engage in research/inquiry to investigate topics and to analyze, integrate, and present information.</p> <p><b>Secondary Claim</b></p> <p>3: Students can employ effective speaking and listening skills for a range of purposes and audiences.</p>
Primary Target(S):	<p><i>These claims and targets will be measured by scorable evidence collected.</i></p> <p><b>Claim 1</b></p> <p><b>8. KEY DETAILS:</b> Identify explicit text evidence to support inferences made or conclusions drawn about texts</p> <p><b>11. REASONING &amp; EVALUATION:</b> Apply reasoning and a range of textual evidence to justify inferences or interpret author's presentation of information (author's line of reasoning; point of view/purpose; relevance of evidence and/or elaboration to support claims, concepts, ideas)</p> <p><b>12: ANALYSIS WITHIN OR ACROSS TEXTS:</b> Analyze one or more texts to determine how connections are made among topics/information presented; or how conflicting information or presentation format reveals author interpretation of the topic</p> <p><b>Claim 2</b></p> <p><b>7: COMPOSE FULL TEXTS:</b> Write full arguments about topics or texts, attending to purpose and audience: establish and support a claim, organize and cite supporting (text) evidence from credible sources, and provide a conclusion</p> <p><b>8. LANGUAGE &amp; VOCABULARY USE:</b> Strategically use precise language and vocabulary (including academic and domain-specific vocabulary, figurative language) and style appropriate to the purpose and audience when revising or composing texts</p> <p><b>9. EDIT AND CLARIFY:</b> Apply or edit grade-appropriate grammar, usage and mechanics to clarify a message and edit narrative, informational, and argumentative texts</p> <p><b>Claim 4</b></p> <p><b>2. ANALYZE/INTEGRATE INFORMATION:</b> Analyze information within and among sources of information (print and non-print texts, data sets, conducting procedures, etc.)</p> <p><b>3. EVALUATE INFORMATION/SOURCES:</b> Use reasoning, planning, and evidence to gather and select information to support inferences, interpretations, and analyses</p>

Secondary Target(s):	<p><i>These claims and targets will be observed but not scored.</i></p> <p><b>Claim 2</b> 10. <b>TECHNOLOGY:</b> Use tools of technology to gather information, make revisions, or produce texts</p> <p><b>Claim 3</b> 4. <b>LISTEN/INTERPRET:</b> Analyze, interpret and use information delivered orally or visually</p> <p><b>Claim 4</b> 1: <b>PLAN/RESEARCH:</b> Conduct short research projects to explore a topic, issue or problem, analyzing interrelationships among concepts or perspectives</p>
Standard(s):	<p><b>Primary Standards</b></p> <p><b>Reading</b> RI-6,8, W-2d, W-3d, L-3a, L6</p> <p><b>Writing</b> W-1a, W-1b, W-1c, W-1d, W-1e W-4, W-5, W-6, W-8, W-9 L-1, L-2, L-3</p> <p><b>Research</b> L-6 W-2d, W-3d, W-8, W-9 WL-8, WL-9</p>
DOK:	4
Difficulty:	Medium/High
Score Points:	TBD
Task Source:	Testing Contractor
How This Task Addresses The Sufficient Evidence For The Claims:	<p>In order to complete the performance task, students</p> <ol style="list-style-type: none"> <li>1. Identify an author's attitude</li> <li>2. Identify the types of evidence the author uses to support his or her claims</li> <li>3. Further analyze information sources and evaluate evidence through discussion with other students in order to formulate a conclusion</li> <li>4. Write an argumentative essay effectively demonstrating             <ul style="list-style-type: none"> <li>• a clearly-established argumentative claim</li> <li>• presentation of relevant supporting evidence, details, and elaboration consistent with the claim, sources, purpose, and audience</li> <li>• effective organization of ideas</li> <li>• adherence to conventions and rules of grammar, usage, and mechanics</li> <li>• control of language and tone for purpose and audience</li> </ul> </li> </ol>
Item Type	PT

Target-Specific Attributes (E.G., Accessibility Issues):	Students with visual and hearing impairments will need to be provided with transcripts of video material. Students with visual, hearing, and speaking impairments will need to be effectively integrated into small group work.
Stimuli:	<p><b>Sources (2 articles, 3 videos; presented in the order in which they are used)</b></p> <p><b>Article 1</b> <b><i>Metro Daily News</i></b> <span style="float: right;"><b>June, 2011</b></span></p> <p><b>The Rise of the Robot Pet</b> <b>by Elena Soto</b></p> <p>Nanto City, Japan, is facing a challenge that’s typical of cities across the country. The city has a large (and growing) elderly population and a shortage of younger people to care for them. But Nanto City is approaching this problem in an unusual way. Over the course of 12 years, and at a cost of \$10 million, Japan’s National Institute of Advanced Industrial Science and Technology has developed a robotic animal—a baby seal named Paro—to help ease the burdens of Nanto City’s older residents. These are people who not only struggle with physical illness but often also with feelings of sadness, loneliness, and isolation.</p> <p>By all accounts, Paro is helping. Informally, nurses report that their elderly patients treat Paro like a family pet, covering him with blankets and trying to feed him snacks. A more formal study by Dr. Takanori Shibata, Paro’s creator, discovered a 50% increase in brain activity in certain patients after spending 20 minutes with the seal.</p> <p>And seals are not the only robotic animals making an impact. Senior citizens who spent time with Aibo, a robotic dog whose name means “pal” in Japanese, played with him and told him their thoughts and feelings. They treated him much like a real, live dog. Though there have been few formal scientific studies to date, those that have been conducted point to a number of benefits of robotic pets. These include lowered stress levels and increased happiness. One study at the University of Missouri revealed that levels of cortisol, a stress hormone, fell in adults when they patted Aibo.</p> <p>Other robot animals can act as guides for people with vision problems, detect fires and rescue people, and assist military troops. These are the robot “working animals.” But some robot animals exist purely for amusement. These robo-pets are, to put it simply, <i>fun</i>. There are baby chickens that chirp and kittens that purr. Many robo-pets behave like babies and “grow up” under the delighted eyes of their owners. Some, like Pleo, a cuddly dinosaur, learn new tricks and change their behaviors as appropriate for their “age.” As one happy customer on Amazon.com explained, “The little critter is the cutest creature I’ve ever seen... He’s a baby dinosaur that’s warm-hearted, gentle and really strikes a chord with all who meet him.”</p> <p>Remarkably, these robo-pets seem to develop their own, unique personalities. Some scientists call these animals “social robots.” Their</p>

existence is possible, in part, because scientists have begun to learn more about how the *human* brain learns and responds, and to apply this knowledge to the rapidly changing field of robotics. Thus the robo-pets are becoming ever more realistic—and engaging.

Scientists have known for years that real dogs, cats, and other pets can do a lot to improve people’s lives. Now they’re finding out that robotic pets can trigger the same feelings of well-being and affection that real animals can. Though robo-pets aren’t cheap—it cost \$10 million to develop Paro—the many benefits they offer may soon outweigh the costs. And they never shed, or need to be cleaned up after, or demand to be taken outside for a walk!

**Video 1:** *Fugitsu’s cute teddy-bear robot shows what it can do*, May 2010. <http://www.youtube.com/watch?v=AwWeN1ARy74>  
--This is an introduction to the Fujitsu robot teddy bear. (1:58)

**Video 2:** *Pleo: Robot, pet or both?* December 2007  
<http://www.youtube.com/watch?v=F6LCEFr8SxQ>  
--The host of a technology show provides an introduction to a specific robot pet. (3:10)

**Article 2**  
***Technology Trends Quarterly***

***Fall, 2010***

**Love In the Time of Robots**  
**by Frank Mullin**

Just as the sun will rise tomorrow morning, so too will robots rise in our society. This is not to say that robots will soon become our evil overlords, no matter what they say in the movies. Rather, robots are rising in their use and usefulness. For decades we have built our robots to perform the three Ds: things that are too dull, dirty, or dangerous for us to do. In many ways, we are now dependent on robots. But now, there is relatively new area in which robots are making advances—into our hearts.

One of the strongest bonds many people have is with their pets. Given the complexity of emotions involved in such relationships, it seems unlikely that a robotic pet could ever truly replace a biological one. But robotic pets are becoming increasingly affordable and lifelike. They can be soft and cuddly. They can respond appropriately to a loving stroke or a sharp voice command. As the technology of robotic pets improve, so too will their abilities to interact. For many people, robotic pets may seem to offer all of the pros with none of the cons of biological pets. And that may just be the problem.

Humans have long shown the ability to bestow love upon inanimate objects. Ask yourself if you have ever loved a car, or your laptop computer, or a teddy bear. Viewed in that regard, it is not difficult to imagine feeling the same love for a robotic pet. After all, a robotic cat might actually exhibit *more* affection than a real cat. But it is that show of affection that may be most troubling. When a nuzzle is given by an aloof biological cat, the owner may feel a rush of pride at

	<p>having earned such an honor. But what of a robotic cat? Would the owner still feel pride, knowing in the back of her mind that that aloofness was coded into the cat by some computer programmer?</p> <p>There are, however, some people who may not be aware of the computer programmer’s hand: children. Kids love their stuffed animals, so it makes sense that they would love robotic pets even more if those pets seemed to love them back. Again, though, the trouble here lies in the <i>simulation</i> of love. In 2001, Sherry Turkle, a professor at the Massachusetts Institute of Technology, performed an experiment where children were observed interacting with a robot. On one occasion, the robot malfunctioned and the subject, a young girl, assumed that the robot no longer liked her. The girl became sad and withdrawn. “Can a broken robot break a child?” Turkle wrote in her book <i>Alone Together</i>. “We would not consider the ethics of having children play with a damaged copy of Microsoft Word or a torn Raggedy Ann doll. But social robots provoke enough emotion to make this ethical question feel very real.”</p> <p>No matter how lifelike a robotic pet may seem, it is still just a technologically advanced machine. Numerous research studies have found that advanced technologies, such as mobile phones and the Internet, often lead to social isolation. It is not hard to imagine that a very lifelike robotic pet, while providing an elderly woman with comfort and companionship, might also cause that woman to isolate herself from human interaction. As one commenter noted in an online forum on robots, “In a few years we’ll never have to leave the house!”</p> <p>Finally, there is the matter of responsibility. Many children get their first experience with responsibility by caring for a pet. Biological pets have real needs, the neglect of which holds very real consequences. But what does a child learn about responsibility when the only need her robotic dog has is to be recharged occasionally? What lesson is learned if, when a child gets bored with his pet, he can stuff it in the back of his closet and forget about it?</p> <p>Tomorrow the sun will rise, and with it, more people will rise to greet their robotic pets. This may or may not be a bad thing. But before the robotic dog takes its place as man’s new best friend, it might be worthwhile to ask whether giving love to something that cannot love you back is truly a friendship at all.</p> <p><b>Video 3:</b> <i>Maya’s Human Interaction – Sensors (A Genibo-QD film)</i>, February 2010. <a href="http://www.youtube.com/watch?v=9b4jx5RzqAk">http://www.youtube.com/watch?v=9b4jx5RzqAk</a>          --The Genibo robot dog displays some of its capabilities. (1:49)</p>
<p>Acknowledgments:</p>	<p>Articles have been rewritten but are based on information from the following sources:  <a href="http://www.forbes.com/2005/06/08/cx_lr_0608japan.html">http://www.forbes.com/2005/06/08/cx_lr_0608japan.html</a>  <a href="http://robotsage.blogspot.com/2006/04/star-telegram-01222006-robotic-pets.html">http://robotsage.blogspot.com/2006/04/star-telegram-01222006-robotic-pets.html</a>  <a href="http://www.livescience.com/596-move-rover-robotic-pet-friend.html">http://www.livescience.com/596-move-rover-robotic-pet-friend.html</a>  <a href="http://www.gizmag.com/emotional-robot-pets/16409/">http://www.gizmag.com/emotional-robot-pets/16409/</a></p>

	<p><a href="http://www.amazon.com">www.amazon.com</a>  <a href="http://books.google.com/books?id=oBb-It3l4oYC&amp;lpg=PP1&amp;dq=robot%20ethics&amp;pg=PP1#v=onepage&amp;q=robot%20ethics&amp;f=false">http://books.google.com/books?id=oBb-It3l4oYC&amp;lpg=PP1&amp;dq=robot%20ethics&amp;pg=PP1#v=onepage&amp;q=robot%20ethics&amp;f=false</a>  <a href="http://chronicle.com/article/Programmed-for-Love-The/125922/">http://chronicle.com/article/Programmed-for-Love-The/125922/</a></p>
Task Notes:	<p><b>Task Overview (195 total minutes):</b>          Title: Robot Pets  <b>Session 1</b> (60 minutes): Ultimately tasked with writing an argumentative essay on robots as pets, in this session students will read one newspaper article and watch two short videos, taking notes on these sources. They will then respond to three constructed-response questions, one addressing reading comprehension and the other two the research skills of analyzing and evaluating information.  <b>Session 2</b> (45 minutes): Students will read a special interest magazine article and watch a third short video. Then working in small discussion groups, students will discuss how their opinions about the topic did or did not change as a result of the information presented in Session 2. Students will again take notes on both the resources and the views of other students.  <b>Session 3</b> (90 minutes): Finally, students will work individually to compose full-length argumentative essays on robots as pets, referring to their notes as needed. Prior to composing their full-length essays, students will be allowed access to the articles and videos they viewed on Day 1 and Day 2. Pre-writing, drafting, and revising will be involved.  <b>Scorable Products:</b> Student responses to the three constructed-response questions at the end of Session 1 and the essays completed in Session 3 will be scored. Secondary targets will not be scored.</p> <p><b>Teacher preparation / Resource requirements</b>          The teacher should assure that sufficient blank paper and writing utensils are available for student note taking. Teacher should conduct standard preparation, registration, etc., for computer-based testing. The testing software will include access to spell check and a thesaurus, but not to grammar check. The teacher should also be prepared to form small, heterogeneous groups of 3 or 4 students for the second half of Session 2 on the second day.</p> <p><b>Teacher Directions:</b>          NB: Students should <b>not</b> be given the specific essay topic, audience, or any additional information about the essay, other than what is provided in sessions 1 and 2, until session 3 begins.</p> <p><b>Session 1 (60 minutes)</b></p> <ul style="list-style-type: none"> <li>• Initiate the online testing session.</li> <li>• Alert the students when 30 minutes have elapsed.</li> <li>• Alert the students when there are 10 minutes remaining in the session.</li> <li>• Make sure the students have put their names on any notes, collect all student notes, and close the testing session.</li> </ul> <p><b>Session 2 (45 minutes)</b></p> <ul style="list-style-type: none"> <li>• Initiate the testing session.</li> <li>• Halfway through the session, after students have received their small group assignment, form heterogeneous 3-to-4-</li> </ul>

person discussion groups.

- Alert the students when 5 minutes remain in the session.
- Make sure the students have put their names on any notes, collect all student notes, and close the testing session.

**Session 3 (90 minutes)**

*Broken down as follows:*

*25 minutes to review sources and notes and plan the essay*

*45 minutes to write the essay*

*20 minutes to revise the essay*

- Return notes to the students and initiate the testing session.
- Allow students access to the articles and videos from Day 1 and Day 2 for the first 25 minutes of the session.
- Once 25 minutes have elapsed, restrict access to sources (but not notes) and instruct students to begin writing their essays.
- Alert the students when 45 minutes have elapsed in the session.
- After students have been writing for 45 minutes, alert them that there are 20 minutes remaining in the session and instruct them to begin revising their essays. It is acceptable if some students continue to write their essays rather than revise them.
- Alert the students when there are 10 minutes remaining in the session.
- Close the testing session.

**Student Directions:**

**Session 1 (60 minutes)**

**Your assignment:**

Your school is planning a technology fair for which one category of entries is writing about technology. You will read several articles and view several videos about a new technology, then write an argumentative essay about it.

**Steps you will be following:**

In order to plan and compose your essay, you will do all of the following in three sessions over the next three days:

- 1) Read an article and watch two videos on the topic of robot pets, taking notes on these sources.
- 2) Answer three questions about the sources.
- 3) Read a second article and watch a video, taking notes on these sources.
- 4) Participate in a discussion of the information in the sources with a small group of classmates, taking notes on your discussion.
- 5) Plan and write your essay.

**Directions for beginning:**

You will now read an article from a newspaper and watch two videos related to the topic of robotic pets, taking notes on all of these sources. Take notes because you will use them in the other sessions. You can refer back to any of the sources as often as you like while you are taking notes during this session and during later sessions on this task. Your notes and the sources will be your basis for writing

your final draft.

(Article 1)

(Video 1)

(Video 2)

### Questions

Use the remaining time to answer the questions below. Your answers to these questions will be scored. Also, they will help you think about the sources you've read and viewed, which should help you write your essay. You may click on the appropriate buttons to refer back to the sources when you think it would be helpful. You may also refer to your notes. Answer the questions in the spaces provided below them.

1. Explain what the author's attitude is toward robot pets in the article "The Rise of the Robot Pet." Use details from the article you read to support your answer.
2. The author of "The Rise of the Robot Pet" uses different types of evidence to support her claim about robotic pets. Identify two different types of evidence she uses and give an example of each.
3. What can people learn about robotic pets from the videos "Fugitsu's cute teddy-bear robot shows what it can do" and "Pleo: Robot, pet, or both?" that they would not learn from "The Rise of the Robot Pet"? Support your answer with details from the videos and the article.

### Session 2 (45 minutes)

Now you will read an article from the magazine "Technology Trends Quarterly" and watch a video, "Maya's Human Interaction," taking notes on each.

(Article 2)

(Video 3)

Next move to the area your teacher has assigned for your small group. Take your notes with you.

Discuss as a group the following questions. You may refer to your notes. Write other people's ideas in your notes, as well as new ideas you have during the discussion.

1. What did you think about robotic pets at the end of Session 1?
2. How are real pets better than robotic pets? How are robotic pets better than real pets?
3. What did you like about robotic pets?
4. What didn't you like about robotic pets?
5. Did your opinion of robotic pets change after reading the article and seeing the video in Session 2? If not, why not? If so, how, and why?

**Session 3** (90 minutes)

Today you will have 90 minutes to review your notes and sources, plan, draft, and revise your essay. (You will have 25 minutes to refer back to the articles and videos and plan your essay, 45 minutes to write your essay, and 20 minutes to revise your essay.) While you may use your notes and refer back to the sources, you must work on your own. You may also refer to the answers you wrote to questions at the end of Session 1, but you cannot change those answers. Now read your assignment and the information about how your essay will be scored, then begin your work.

**Your Assignment**

Remember, your school is planning a technology fair for which one category of entries is writing about technology. Write an argumentative essay to make a claim for or against robotic pets. Your essay can be read by students, teachers, and community members who attend the technology fair. Support your claim with details from what you have read, viewed, and discussed with some of your classmates.

**How your essay will be scored:** The people scoring your essay will be assigning scores for

- 1. *establishing a claim***
- 2. *presentation of relevant evidence*** – how well you provide support and elaboration for your claim with specific information from the sources and how well you stay on topic throughout the essay
- 3. *organization*** – how well your ideas logically flow from your statement of focus, to supporting ideas, to concluding statement(s)
- 4. *conventions*** – how well you follow the rules of grammar and mechanics (spelling, punctuation, capitalization, etc.)
- 5. *language, tone, purpose, audience*** – the appropriateness of your language and tone for your purpose and audience
- 6. *content*** – the accuracy and relevance of the information you use from the sources.

**Now begin work on your essay.** Manage your time carefully so that you can:

- plan your essay
- write your essay
- revise and edit for a final draft

Word-processing tools, thesaurus, and spell check function are available to you.

<b>Sample Generic 4-point Argumentative Writing Rubric (Grades 6-11)</b>					
<b>Score</b>	<b>Statement of Purpose/Focus and Organization</b>		<b>Development: Language and Elaboration of Evidence</b>		<b>Conventions</b>
	<b>Statement of Purpose/Focus</b>	<b>Organization</b>	<b>Elaboration of Evidence</b>	<b>Language and Vocabulary</b>	<b>Conventions</b>
<b>4</b>	<p>The response is fully sustained and consistently and purposefully focused:</p> <ul style="list-style-type: none"> <li>claim is clearly stated, focused and strongly maintained</li> <li>*alternate or opposing claims are clearly addressed</li> <li>claim is introduced and communicated clearly within the context</li> </ul>	<p>The response has a clear and effective organizational structure creating unity and completeness :</p> <ul style="list-style-type: none"> <li>effective, consistent use of a variety of transitional strategies</li> <li>logical progression of ideas from beginning to end</li> <li>effective introduction and conclusion for audience and purpose</li> <li>strong connections among ideas, with some syntactic variety</li> </ul>	<p>The response provides thorough and convincing support/evidence for the writer’s claim that includes the effective use of sources, facts, and details. The response achieves substantial depth that is specific and relevant:</p> <ul style="list-style-type: none"> <li>use of evidence from sources is smoothly integrated, comprehensive, relevant, and concrete</li> <li>effective use of a variety of elaborative techniques</li> </ul>	<p>The response clearly and effectively expresses ideas, using precise, language:</p> <ul style="list-style-type: none"> <li>use of academic and domain-specific vocabulary is clearly appropriate for the audience and purpose</li> </ul>	<p>The response demonstrates a strong command of conventions:</p> <ul style="list-style-type: none"> <li>few, if any, errors in usage and sentence formation</li> <li>effective and consistent use of punctuation, capitalization, and spelling</li> </ul>