



Teache	r Versio	on	
Grade	6	Title/Subject	A Robot of Your Own

Included in this packet:

- 1. Teacher directions
- 2. Student prompt and instructions

Overview

Students will read three sources about robots, then create an imaginary narrative about having a robot of their own. On Day 1 they will read the sources and discuss possible storylines. On Day 2 they will plan their narratives and begin to draft. On Day 3 they will revise, edit, and produce a final copy.

(Adapted from a Narrative Writing Performance Task for Grade 6 from the Michigan Department of Education.)

Process:

Day 1: Reading and Discussing possible storylines- Up to 60 minutes

Tell the students that they will be writing an imaginary narrative about having a robot of their own. Explain that today they will research robots by reading three sources about them. Tell the students that they may take notes, or mark up the text to look for details they might include in their narratives.

When students are finished reading, have them share ideas for what it might be like to have a robot of their own. What might happen? What are some possible storyline ideas? After pairs or small groups share, have each team share their ideas with the whole class.

Day 2: Planning and Writing a Draft - Up to 60 minutes

Explaining the situation:

"Today you will be writing an imaginary narrative. In your story, you have just received your new robot. You are excited to turn it on and see how it works. You press the button to turn on the robot. Write a story about what happens next. When writing your story, find ways to use information and details from the sources to improve your story. Make sure you develop your character(s), the setting, and the plot, using details, dialogue, and description where appropriate."







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Planning

Distribute blank paper to the students. Tell them to plan their narrative using whichever techniques you have taught them that they prefer. This may include storyboarding, a storymap or graphic organizer, storyhill, etc. You may remind them of the strategies for planning, but **DO NOT provide a pre-printed graphic organizer.** They need to create their own plans for this ondemand writing task.

Drafting

Review the process for writing a story by going over the directions included with this prompt. Tell the students they will now have up to 50 minutes to write their stories. Maintain a quiet atmosphere during the writing period so that all students may concentrate on their own work.

Day 3: Revising and Editing - Up to 60 minutes

Tell students that they will now have up to an hour to revise and edit their story. You may use the student directions to remind them of the elements needed in a quality narrative. When they are finished, collect all pieces of their work: planning page, drafting pages, and final draft.

Teacher Directions for Scoring Rubric:

Use the narrative writing rubric to score the writing and enter a score for each student into School City.

Student responses to Part 2 will be scored using the Common Core based Narrative Writing Rubric. A score will be given in each of the two rubric categories. For grades 3-6, student revisions will be scored. Each student's final scores should indicate a 1, 2, 3, or 4 in each of the categories (no partial scores such as 2.5, 3+, etc.). A score of 3 or 4 in each category is considered a passing score and a total of 6-8 points is considered a passing overall score.

Common Core Standards



Narrative Writing Performance Task



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WGASFA: "with guidance and support from adults"

This rubric was adapted from rubrics at sbusd.org and information from Smarter Balanced Assessments (www.**smarterbalanced**.org) using the California Common Core Standards at www.cde.**ca**.gov.





Common Correst State Standards

Common Core Standards

		Student Version
6	Title/Subject	A Robot of Your Own – Prompt & Instructions

Writing Prompt:

Grade

You will be writing an imaginary narrative. In your story, you have just received your new robot. You are excited to turn it on and see how it works. You press the button to turn on the robot. Write a story about what happens next. When writing your story, find ways to use information and details from the sources to improve your story. Make sure you develop your character(s), the setting, and the plot, using details, dialogue, and description where appropriate.

Writing Tips:

- □ Make a title for your story.
- □ Introduce the reader to the situation and characters in the story with clear details.
- □ Use dialogue, pacing, and description to develop the story and show the responses of the characters to the events.
- □ Use a variety of transition words, phrases and clauses to manage the sequence of the story, making sure it unfolds naturally.
- □ Use concrete words and phrases and sensory details to help the reader truly experience what is going on in the story.
- □ Write an ending that flows from the story.

Step 1: Plan

Plan your characters, plot, and setting before you begin to write.

Step 2: Draft

- □ Write your draft.
- Read your draft to a partner and make notes about what you want to change.

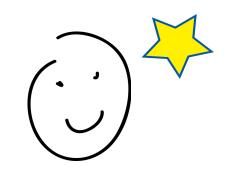
Step 3: Reread and Revise

- Does it make sense?
- Does it have enough interest, detail?
- □ Are the time sequences and transitions clear?

Step 4: Edit

- □ Capitals at the beginning of sentences and for proper nouns
- Punctuation: (end points).!?
 - Commas, quotation marks ""
- □ Spelling
- □ Complete sentences
- □ Check for fragments and run-ons and check verb tense and nounverb agreement.

Good work!



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			Student Version
Grade	6	Title/Subject	A Robot of Your Own – Source 1

Source #1

The following is an article about several robots and the jobs they perform.

Meet the Robots

by Lucas Langley

If you think of robots as a thing of the future, think again. Robots do many jobs today. They work in mines and on farms, they help doctors and save lives, and they even explore volcanoes. Here are some robots that are hard at work.

Gemini-Scout

Gemini-Scout is a remote-controlled robot that does search-and-rescue work in mines under the ground. The robot is less than two feet tall and has wheels, which enable it to go up and down stairs and make tight turns—it can even roll through water! Gemini may be small, but it is strong and can easily carry food, water, and other supplies. In real emergencies, Gemini can even drag an injured person to safety.

Wherever it goes, Gemini-Scout constantly collects information. For example, it tests the air for gases and then tells miners when the air is safe. The robot also has a thermal camera, a special camera that locates heat energy to produce images that help it find miners who are trapped underground.

Once the robot finds the trapped miners, the miners can use the robot's two-way radio to talk with the rescue team.

This robot was built to be easy to use because its remote control operates like a remote control used for many video games. If you've ever played a video game, you would probably know how to use Gemini- Scout.





Dante 2

Although Dante 2 isn't saving lives directly like Gemini-Scout, its job is just as interesting and important. Dante 2's job is to climb into volcanoes to gather information for scientists. Like a spider, this robot has eight legs, which can help it climb the steep walls of the volcano while secured with a rope. Dante 2 is also built to survive extreme heat. When a volcano is too dangerous for scientists to enter, Dante 2 goes instead.

Once in the volcano, Dante 2 looks for vents, or holes, in the crater. Then the robot collects information about the gases that come out of the vents. In the past, scientists could not learn as much about volcanoes, but Dante 2 is changing that. Now scientists can study a volcano up close while remaining at a safe distance.

Mr. Gower

At first glance, Mr. Gower looks like a small metal cabinet on wheels, but its job is just as important as Dante 2 and Gemini-Scout. Mr. Gower is a robot that moves throughout a hospital, helping doctors and nurses bring medicine to patients. The body of the robot is a stack of locked drawers that store medicine. Nurses and doctors can unlock the drawers and get the medicine they need for their patients.

Mr. Gower can be programmed to go anywhere in the hospital. It can ride elevators, steer through hallways, and even move around things that get in the way. The robot is so strong that it can pull 500 pounds. Mr. Gower is battery powered and, after charging for only two hours, the robot can deliver medicine for twelve hours without stopping.

Not only does it work long days, but Mr. Gower can talk. It has been programmed to say hundreds of phrases like "Calling elevator" or "Your delivery is here." Mr. Gower reduces the amount of time doctors, pharmacists, and nurses spend walking around the hospital, allowing them to use their time to focus on other important tasks.





Agribots

Agribots may not save lives, but many farmers find them very useful. An agribot is a robot that picks fruit. It might pick beans, oranges, grapes, or apples. Agribots are not yet widely used, but farmers are very interested in what these robots can do. Because picking a strawberry is different than picking an apple, agribots come in all shapes and sizes. Some have giant arms that are towed behind trucks, while others are able to move around on their own. In Japan, there is a strawberry-picking robot that can sense the color of the berries. This helps the robot know when each berry is ripe.

At the Massachusetts Institute of Technology (MIT), scientists are working to grow cherry tomatoes with no human help at all! They have created a greenhouse full of plants that are cared for by small agribots. The agribots are like robot farmers. Every plant has sensors that tell the robots what the plant needs. If a plant is too dry, a robot will water it. When a robot senses that a tomato is ripe, it uses a mechanical arm to pick the tomato. Agribots may seem unusual now, but one day they may be common on farms.

No matter how large or small a robot's job, one thing is for certain—robots are here to stay. Because robots are dependable and tireless, they are valuable tools, and as technology advances, they will be capable of doing increasingly complex jobs.

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			Student Version
Grade	6	Title/Subject	A Robot of Your Own – Source 2

Source #2

The following is an article about robots at play.

Robots That Play Well with Others

by Lisa Langston

About 50 years ago, the author Isaac Asimov wrote a story called *I*, *Robot*. The story is set in the future, when robots take care of children. The main character loves her robot babysitter, Robbie. Unlike the child's parents, Robbie always has time to play. Robbie and the child have adventures together; Robbie is an endless source of fun!

When the story was written, it was only a fantasy. Now it is close to coming true because today, robots can do all kinds of work. They assemble electronic gadgets, guide trains on tracks, and sort trash. Today's robots can play as well as work— robots sing, dance, and even play music. For example, a Japanese robot can play the piano with its two mechanical hands.

Many playful robots are made to copy animals, too. Some robots play the way animals play while other robots play with animals. For example, moviemakers have designed huge robotic apes and dinosaurs to be in movies, but these kinds of robots aren't made only for movies.

Robot animals can live with you. You can buy a robot pet, such as a dog, a seal, or even a dinosaur. These robot pets have a lot in common with real pets. They want your attention and you can teach them tricks. There is even a new version of a robot pet that has fake fur so you can pet your robot just like you pet your dog or cat. There is one difference, though—you don't need to take them outside or feed them!

Other robots help people play with live animals. One company, I-Pet Companion, has made a robot that lets people play with kittens, but from a distance. When you log on to the Internet, you can control the robotic pet from far away. The robot is put in a room full of kittens, and it drags a piece of string for the kittens to chase. When it's your turn, you can control the robot to pull the string this way or that way while the kittens jump after the string as you push the controls.





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Some robots even play all by themselves. College students in Oregon have created robots that can play hockey or shuffleboard on their own. All year, the students work hard to design the robots. Then, the robots play the game without anyone controlling them. They grab the puck, turn, twist and compete to score, and as part of the final test, the robots must push the puck to the goal without being told what to do.

Even though there are no robots quite like Robbie, today's robots can still offer hours of fun. Who knows, maybe robots in the future will make Asimov's fantasy into a reality.

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Common State Standards

			Student Version
Grade	6	Title/Subject	A Robot of Your Own – Source 3

Narrative Writing Performance Task

Here is an article on self-driving cars from the National Public Radio website (NPR.com), published on February 17, 2012.

When the Car Is the Driver

by Steve Henn

This week the state of Nevada finalized new rules that will make it possible for robotic selfdriving cars to receive their own special driving permits. It's not quite driver's licenses for robots—but it's close.

The other day I went for a spin in a robotic car. This car has an \$80,000 cone-shaped laser mounted on its roof. There are radars on the front, back, and sides.

Detailed maps help it navigate.

Do people notice it's a self-driving car and gawk?

"We get a lot of thumbs up," says Anthony Levandowski, one of the leaders of Google's selfdriving car project. "People drive by and then they wave. I wish they would keep their eyes on the road."

Levandowski is in the passenger seat with a laptop showing him what the car can see. Chris Urmson is behind the wheel. But his hands are in his lap and the steering wheel is gently turning back and forth, tracing the contours of California's busy Highway 85.

"And it can adjust the speed. If there is a particularly tight corner, it will slow down for that," Urmson says. "It adjusts speed to stay out of blind spots of other vehicles. It tries to match speed with traffic."

Urmson has been working on this technology for close to a decade. His first car managed to travel just 11 miles on a dusty road. Google's vehicle is a giant leap forward.



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Narrative Writing Performance Task

"When we got this on the freeway and it was doing 70 miles an hour and just smoothly driving along the road, you could taste it—the technology," Urmson says.

"You could really feel the impact and how it's going to change people's lives. It was just amazing."

While he was talking, a motorcycle cut us off. The car saw the move coming, and we hardly even noticed.

Google's fleet of robotic cars has driven more than 200,000 miles over highways and city streets in California and Nevada. Google did this testing in kind of a legal limbo1. These cars aren't forbidden, but, "There was no permission granted for any of that to happen by anybody." says Steve Jurvetson, a venture capitalist2 and robotic car enthusiast.

"It's essential that there be a place to do tests," he says. "There's two ways to do it—the seekforgiveness strategy and the seek-permission strategy. Frankly, the 200,000 hours I think that have been driven here in California—that's a seek-forgiveness strategy. Right?"

If anything [had gone] wrong, Google would have had a huge amount of explaining to do. So last year, the company hired a lobbyist in Nevada.

"The state of Nevada is close [to California], it's a lot easier to pass laws there than it is in California." Levandowski says.

He says Google convinced the state Legislature to pass a law making robotic cars explicitly legal. But the Legislature went further than just creating a place to test these cars—it ordered the Department of Motor Vehicles to create basically a driver's license for these robot cars.

"I thought it was great." says Bruce Breslow, director of the Nevada DMV. "My grandfather took me to the 1964 World's Fair in New York City many times. And they were promising me the car of the future as an 8-year-old, and I thought to myself, this finally could be it."