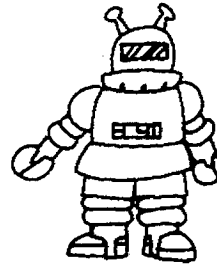


Name _____ Date _____



Robotics
Independent Reading

Robotics

Think Like an Engineer

Find evidence to show what engineering challenges each robot has overcome and what it has contributed to the field of engineering.

Reread the third paragraph on page 734 and all of page 735.

Robot:	
What challenges did the robot face? How did it overcome them?	What has it contributed to the field of robotics?

Reread page 736.

Robots:	
What challenges did the robots face? How did they overcome these challenges?	What have they contributed to the field of robotics?

Name _____ Date _____

Reread the second and third paragraphs on page 737.

Robots:	
What challenges did the robots face? How did they overcome these challenges?	What have they contributed to the field of robotics?
_____	_____
_____	_____
_____	_____
_____	_____

Read the second and third paragraphs on page 743.

Robot:	
What challenges did the robot face? How did it overcome them?	What has it contributed to the field of robotics?
_____	_____
_____	_____
_____	_____
_____	_____

Think about the advances made by each of these robots. What do you think they tell us about the future of robotics?

Name _____ Date _____

Suffixes *-able, -ible*

Robotics
Vocabulary Strategies:
Suffixes *-able, -ible*

The words in the box end in a suffix that means "can" or "able to."
Choose the word that best completes each sentence.

legible disputable audible collapsible edible
predictable advisable compatible memorable capable

1. The sloppy writing was not _____.
2. Do you think it is _____ to wear a gown to a pool party?
3. Although he was hungry, he was unsure whether the fruit was _____.
4. It was _____ whether or not the man was guilty.
5. I couldn't hear the singer; she was barely _____.

Now use the remaining words to write five new sentences that show you know the meaning of the words.

6. _____

7. _____

8. _____

9. _____

10. _____

Name _____ Date _____

Word Parts

Robotics

Spelling: Word Parts

Basic Read the paragraph. Write the Basic Word that best replaces the underlined word or words in the sentences.

The (1) planning of my school's annual talent show began with the planning committee. Committee members gave us (2) facts about tryout dates and times. The audition I had with my friend Jack went (3) flawlessly, and we made the show! Weeks of (4) getting ready helped us to feel ready to perform. (5) The turnout was quite high, with parents and students present. The level of excitement backstage was (6) astonishing. Several students showed intense (7) focus before their performances. After an hour of entertainment, there was a(n) (8) break. We had some (9) snacks as we talked about the acts. Jack and I agreed that there was great (10) progress compared with last year's show.

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

Challenge Write a paragraph about a career choice—for example, a teacher, a lawyer, a carpenter, or an architect. Give reasons for your choice. Use three of the Challenge Words. Write on a separate sheet of paper.

Spelling Words

1. existence
2. refreshment
3. convention
4. intermission
5. uneventful
6. perfectly
7. completion
8. improvement
9. information
10. attendance
11. reversible
12. invention
13. development
14. respectful
15. unhappiness
16. preparation
17. irrigate
18. disagreement
19. unbelievable
20. concentration

Challenge

acquaintance
prosecution
precision
immeasurable
reputation

Name _____ Date _____

Spelling Word Sort

Robotics
Spelling: Word Parts

Write each Basic Word beside the correct heading.

Three-syllable words	
Four-syllable words	
Five-syllable words	

Spelling Words

1. existence
2. refreshment
3. convention
4. intermission
5. uneventful
6. perfectly
7. completion
8. improvement
9. information
10. attendance
11. reversible
12. invention
13. development
14. respectful
15. unhappiness
16. preparation
17. irrigate
18. disagreement
19. unbelievable
20. concentration

Challenge Add the Challenge Words to your Word Sort.

Connect to Reading Look through *Robotics*. Find words that have a prefix, a base word or word root, and a suffix. Add them to your Word Sort.

Challenge
acquaintance
prosecution
precision
immeasurable
reputation

Name _____ Date _____

Proofreading for Spelling

Find the misspelled words and circle them. Write them correctly on the lines below.

The invention of industrial robots was always seen as an improvement by some and a threat by others. Today, each convention that doesn't announce the development of new models is usually an uneventful one. But throughout history, the completion of every machine that replaced human workers has been met with some unhappiness and disagreement. People are afraid that they will lose their jobs, and they are often right. Even something as simple as a timer to irrigate fields meant that someone no longer did that job by hand. Now that robots have come into existence, this trend is not reversible. Companies that introduce robots try to be respectful of workers' fears, but the end result is always the same. The machines will be made and used, and workers must adjust.

Spelling Words

1. existence
2. refreshment
3. convention
4. intermission
5. uneventful
6. perfectly
7. completion
8. improvement
9. information
10. attendance
11. reversible
12. invention
13. development
14. respectful
15. unhappiness
16. preparation
17. irrigate
18. disagreement
19. unbelievable
20. concentration

- | | |
|----------|-----------|
| 1. _____ | 7. _____ |
| 2. _____ | 8. _____ |
| 3. _____ | 9. _____ |
| 4. _____ | 10. _____ |
| 5. _____ | 11. _____ |
| 6. _____ | 12. _____ |

Sentence Types: End Punctuation

Robotics
Grammar: Proper Mechanics

There are three types of **end punctuation** that conclude a sentence: the period, the question mark, and the exclamation point. The most common is the period, which ends a sentence that makes a statement. A question mark is used for a question, and an exclamation point is used to convey strong emotion.

statement

I went to the store today.

question

Did you go to the store today?

exclamation

I was so excited to go to the store today!

Thinking Question

Does this sentence make a statement, ask a question, or express strong emotion?

Activity Write the correct punctuation at the end of each sentence.

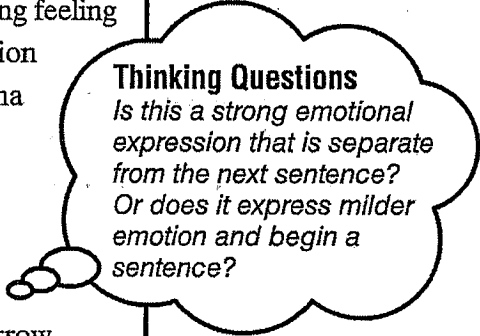
1. A robot is mechanical _____
2. I can't believe the robot looked so real _____
3. Who designed the first robot _____
4. Bobby was thrilled to start reading the story _____
5. Did you finish writing the report _____
6. Many robots use electric motors _____
7. Today, robots are commonly used to perform certain jobs for humans _____
8. What an amazing invention _____

Interjections: Punctuation

An **interjection** is a word or group of words that expresses emotion. An interjection that expresses very strong feeling is followed by an exclamation point. An interjection that expresses mild feeling is followed by a comma and appears at the beginning of a sentence.

exclamation point
Yay! I'm excited for the trip.

comma
Oh, I didn't know we weren't leaving until tomorrow.



Activity Add a comma or exclamation point after each underlined interjection.

1. Hooray I passed the test.
2. Oh no it's too late to study.
3. Wow I got to see a real robot.
4. Yikes It looks like an alien.
5. Fine we can wait to see the exhibit.
6. Ouch I stubbed my toe on the way to the bus.
7. Phew We have bandages in the first aid kit.
8. Oh there's time to have lunch before we leave.

Name _____ Date _____

Capitalization: Proper Nouns and Proper Adjectives

Robotics
Grammar: Proper Mechanics

A **proper noun** names a specific person, place, or thing, and begins with a capital letter. A **proper adjective** is often derived from a proper noun and also begins with a capital letter.

proper noun

I went on a trip to China.

proper adjective

I ate Chinese food there.

Thinking Questions

*Is this word the name of a person, place, or thing?
Is it derived from the name of a person, place, or thing and does it begin with a capital letter?*

Activity Underline the proper noun or proper adjective in each sentence.

1. The first descriptions of machines were made by Heron of Alexandria.
2. George Devol received a patent for the first commercial robot.
3. Japanese mechanical toys were made in the 1800s.
4. Even Leonardo da Vinci had made a design for a robot.
5. The term "robot" was coined by a Czech writer.
6. His name was Karel Čapek.
7. He used the word in a play called *Rossum's Universal Robots*.
8. His brother Josef was a painter.

Name _____ Date _____

Using Adjectives and Adverbs

Robotics
Grammar: Spiral Review

Nonrestrictive Element	The robots, all of which are based on insects, are very small.
Parenthetical Elements	The largest robot—known as Atlas—stood seven feet tall. Tiny robots may one day be able to make people better (by removing plaque from arteries, for example).

1–6. Look for the nonrestrictive or parenthetical element in each sentences below. Rewrite the sentence on the line with correct punctuation.

1. This is my strongest robot SAM.

2. I made him when I was 12 two years ago.

3. He helps me I'm happy to say by lifting heavy things.

4. There are smarter robots don't tell him.

5. But SAM who was my first will always be special to me.

6. He lives with me in my room in my closet, specifically.

7–8. Use a nonrestrictive or parenthetical element to add information to each sentence. Write the new sentence on the lines.

7. The robot head looked at me from the table.

8. Its eyes seemed strangely human.

Name _____ Date _____

Connect to Writing

Robotics
Grammar: Connect to Writing

When you proofread your writing, you must make a habit of checking for correct punctuation and capitalization.	
incorrect punctuation Hooray, that was the best movie I've ever seen.	incorrect capitalization brian brought back souvenirs from russia.
correct punctuation Hooray! That was the best movie I've ever seen!	correct capitalization Brian brought back souvenirs from Russia.

Read each sentence. Then write the sentence correctly on the lines provided.

1. Are you reading that book!

2. I'm going to build robots in south america.

3. jane said she had been there before.

4. Cool, it sounds amazing.

5. I'm especially looking forward to visiting peru.

6. From there, we go to silicon valley.

Name _____ Date _____

Focus Trait: Word Choice

Using Persuasive Language

Robotics
Writing: Argument

Statement	More Persuasive Statement
People are afraid that robots may be too smart and a threat to humanity.	People have imagined the possibility of highly intelligent robots taking over the human race. This fear has been expressed in countless books and films, from science fiction novels to action movies.

Fill in the blanks with words that are more persuasive than the examples on the left. Choose words that are confident, positive, and convincing.

Instead of this...	you can write this.
1. Modern technology can do things that help some people.	Modern technology can _____ that help _____ people.
2. Fooling around with robots has probably had many big results.	_____ robots has _____ results.

Rewrite each sentence to make it more persuasive. Change or add persuasive language, and eliminate words that are vague or sound uncertain.

3. Robots might help doctors take care of people.

4. People will usually like a robot more if it looks like it has expressions.

5. A few people are putting together robots that are actually really small.

