# Robots
## Julie Ellis

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**Focus phonics**

or written as our as in your, pour, four

s written as ce as in since, service

**Tricky words**

again, anyone, friend, hours, many, move, people, their, there, two, where, who

**Book summary**

Robots can be coded to do things that are too hard, boring or dangerous for humans to do. They can help us in many ways, such as in factories, in search and rescue and in caves. And robots have lot of domestic uses too, such as being a friend or support robot. They can even spy on wild animals to help us find out more about them.

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# Learning intention

*Phonics:* To decode words with the phonemes /or/ spelt our; and /s/ spelt ce, that feature in the text and extend to other known words with the same phonemes, e.g. court, armour; fence, prince.

*Comprehension:*

- Retrieve and record information/key details from the text
- Explain the meaning of words in context
- Summarise main ideas
- Make inferences from the text
- Make predictions that fit with information given in the text
- Make connections (text to self, text to text, text to world)
- Ask questions
- Visualise

*Fluency:*

- Read at a natural speaking pace with minimal sounding out
- Read with appropriate emphasis and intonation to support the meaning of the text

# Before reading

*Story discussion:* Look at and discuss the front cover and read the title together. Ask: What is a robot? (a machine that does tasks that it is coded to do) What is on the front cover? (huge robots on a factory assembly line) Who is the author? (Julie Ellis) Share knowledge and views of any other books written by Julie. (in the Reading Road series, Julie has also written Helicopters that help) Invite students to share any prior knowledge of or experiences with robots and make predictions about what might happen in the story. Keep a note of predictions and return to them later. Read

and discuss the blurb on the back cover. What is the picture of on the back cover? (a lawnmowing robot and a little flying robot) Flick through the book to get an idea of the contents. Do you think this is a fiction or non-fiction text and say why.

*Quick phonics warm-up:* Read the words on the inside front cover together, with the focus phonemes of /or/ written as our and /s/ written as ce. Flip through the text to locate and read words with these same focus phonemes. Discuss the meaning of these words. Build the focus word *since* with letter cards. Think of words that rhyme with *since* or have the same ending phoneme. List these to read together, e.g. fence, mince, prince, force, voice, notice. Then read the words.

*Vocabulary check:*

rubble p 17 broken rocks possibly from the destruction of a building

welding p 6 using heated metal to join two things

*Morphology:* p 26 robotic means relating to or resembling robots - the suffix -ic makes a noun into an adjective and means "of" or "pertaining to".

*Etymology:* engineer (noun) p 4 a person who designs, makes or maintains engines, machines or structures; mid-14th century, enginour, "constructor of military engines", from Old French engigneor "engineer, architect, maker of war-engines".

*Tricky word practice:* Display the tricky words *anyone* and *friends*. Ask: What are the tricky parts of these words?

anyone - the tricky part is a which says /e/ and one which says /w/ /u/ /n/.

friends - the tricky part is ie which says /e/.

Practise reading and spelling these words.


# During reading

*Read the story:* This book may not fit into a single reading session. The end of  p 13 (after Robots in space) is a good point to break the reading. Students can finish the book in a second group session or for homework.

Reading could follow one or more of the following approaches:

• Start by reading the text with students, then invite them to take over the reading. On p 2, ask: What do you notice about the robot in the photographs? (it looks like a person) On p 3, ask: How do robots receive instructions? (through coding) Do you know any codes? (reading is decoding, that's what you are doing now -  solving the sound code for each word) Students continue reading.

• Students read silently at their own pace; listen to each student in turn as they read a brief passage.

• Divide the book up between students; they read a section each and then report back on it summarising the main ideas.

*Phonics support:* Remind students to sound out and blend the letters as necessary to read any unfamiliar words, but encourage them to read words with familiar letters and sounds fluently on sight if they can, without sounding out. If students get stuck on a word, model how to sound out and blend the sounds in the word. Encourage students to help each other with sounding out and blending and praise good use of this strategy, especially words with the focus phonemes of /or/ written as our and /s/ written as ce.

*Comprehension support:* Pause occasionally to talk about the story and encourage students to find and retrieve key details from the text, e.g. on p 4, ask: What size is RoboBee X-wing? (size of a fly) On p 7, what are some of the reasons we use robots? (they don't get tired, they can do repetitive, dangerous and difficult work) On p 11, what are the three Space Base robots nicknamed? (Queen, Honey and Bumble) What are they named after and why? (they are named after bees because they are flying robots called Astrobees)

# After reading

*Apply learning:* Discuss the text. What have you learned about robots? Which robot surprised you the most? Is there a robot in the book that you would like to have? Is there a robot that you would like to design? What did Julie (the author) need to know before writing this text?

*Comprehension:* Review the predictions made earlier. Were they correct? Were there any surprises? On pp 16-17, ask: What does a snakebot look like and what is it used for? (it looks like a snake and goes into small spaces to look for people or to look at the inside of pipes) Compare a snakebot with a dogbot. (a dogbot has 4 legs and looks like a dog; it can get into tight gaps and walk over rubble) On p 26, what is the benefit of an animal robot? (it doesn't need attention like a real animal does) Read together the six reasons to use a robot on p 28. Discuss which robot might fit with each reason. Discuss the questions on the inside back cover.

Retelling the text: ask students to choose a heading and take turns to retell that part of the text. Look for words with hyphens in the text and say what they mean, e.g. go-carts, pipe-shaped. Find words ending in y (an alternative grapheme for /ee/) in the text and say what they mean, e.g. risky, costly, enemy, tiny, battery, activity. Make a list of 10 words and practise reading and writing them. Look for words with apostrophes that are contractions in the text. Say what the contraction is short for, e.g. don't (do not); won't (will not - this originates from the 16th century form of the word - wonnot). Think of other contractions to discuss, e.g. didn't, can't, shouldn't, wouldn't, isn't.

*Fluency:* Choose a passage from the book and model how to read it fluently with appropriate emphasis and intonation to support the meaning of the text. Students read the same passage, copying your reading. (echo-reading) Students choose another brief passage and read it fluently/ with appropriate emphasis and intonation to their partner then swap over. Read parts of the text together (choral-read) to build fluency and self-confidence. Students practise speed-reading the focus words from the inside front cover to encourage automatic recall (words that can be recalled automatically have been orthographically mapped to students' long-term memory).

*Spelling and writing through dictation:* Read out the following passage for students to write. It uses words and sentences from the text as these are decodable. The focus is on encoding (spelling) rather than creating content.

(page 2)

Robots are things that do tasks for us – perhaps because it is too hard, risky or boring for a person to do them. Some robots look like people, but lots do not. This robot was made in 2016. It looks like a person. Motors help it to walk. It can talk, too. It has been programmed to have feelings. It says it can feel happy or sad.

(page 3)

Robots do not really have feelings. They do not have a brain so they must be told what to do. Robots can be told to do easy things like move in a line or hard things like turn around. We instruct robots how to act with 'coding'.

(page 10)

It is hard for humans to work deep under the sea, so underwater robots can help. Robots can search for sunken ships. They can inspect underwater pipes for cracks. Some robots can get in small spaces to fix things if needed.

# Follow-up activities

Students complete the follow-up activities:

*Worksheet 1: Phonics*

/or/ spelt our. /s/ spelt ce.

Read and write words.

Write definitions.

Complete sentences.

Sort words.

*Worksheet 2: Comprehension*

Fill in a graphic organiser.

Vocabulary work.

Answer true or false questions.

Complete a plus/minus/interesting table.

*Worksheet 3: Design/Engineering/Art*

Design your own robot.

Answer questions about your robot.

*Worksheet 4: Science/Technology*

Read a paragraph about a Robotic Yak.

Plan and write a report on the Robotic Yak.