

National Geographic Kids Readers: Robots

Notes for teachers: using this book in the classroom

Reading objectives: read aloud books closely matched to their improving phonic knowledge, sounding out unfamiliar words accurately, automatically and without undue hesitation; check that the text makes sense to them; ask questions to improve their understanding of text; retrieve and record information from non-fiction

Spoken language objectives: articulate and justify answers, arguments and opinions

Curriculum links: Art and Design: drawing to design and develop imagination; Design and Technology: design and evaluate

Interest words: actuator, android, artificial, biometrics, nanobot, navigate, programme, robonaut, roboticist, sensor, surroundings

Resources: paper, pencils and pens

Children who are reading at White and Lime book bands will be able to read this book in a group, pair or independently over several sessions. They will have good reading stamina and will be able to tackle more challenging vocabulary and a range of varied sentence structures. Guided group work and independent challenges can be used to develop retrieval, interpretation and meaning making, as well as children's ability to express and explain ideas and concepts.

Language

- Children will be able to use the full range of cues available to them and their word knowledge to decode most of the language in this book. Discussion in guided groups and after independent reading can be used to develop children's abilities to understand and interpret the more complex information and ideas that are presented. Children may need help with the following:
 - decoding and understanding some of the words contained in the *Tech talk* boxes: *actuator, android, artificial, biometrics, nanobot, navigate, programme, robonaut, roboticist, sensor*.
 - reading and pronouncing some of the robot names and places featured.
 - reading the longer topic-related vocabulary, e.g. *processes, mechanical, assembling*.
- Children may need help to bring information together from the illustrations and text, to make rich meaning about how robots function, e.g. pp14–15.
- Children may need help to understand some of the extended explanations and more complex ideas, e.g. how robots are used in space, pp38–41.
- Children will enjoy comparing the different robots and being amazed by what they can do. Paired reading will encourage children to talk as they read and make meaning.
- Children may need help to use the index to retrieve information to answer the quiz questions.

Collins

Images

- Look at the image on p5. Challenge children to talk about what Sojourner is used for and its appearance.
- Spend time looking closely at the image on p11. Ask children to use the image to explain the robot's different features and how it functions.

Activities

- Ask children to choose their favourite robot from the selection on pp12–13 and to justify why they have chosen it.
- Read the book carefully and collect clever features from different robots. Use this reading to help draw a design of a new robot for a specific classroom task. Label the robot for a display.
- Challenge the children to identify the robots from famous films on pp36–37.
- Enjoy telling the robot jokes to each other.

Questions

- What was the first human-like robot called?
- What are the three parts that every robot has to have?
- What are robots with tracks especially useful for?
- How can robots be used to help in disaster areas and operations?
- What does a roboticist do?