# **National Geographic Kids Readers: Planets**

## **Notes for teachers: using this book in the classroom**

**Reading objectives:** read most words quickly and accurately, without overt sounding and blending, when they have been frequently encountered; discuss and clarify the meanings of words, linking new meanings to known vocabulary; draw on what they already know or on background information and vocabulary provided by the teacher;answer and ask questions

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

**Curriculum links:** Science: space; Art and Design: drawing for imagination; Design and technology: functional design based on criteria; Writing: composition

**Interest words:** telescope, asteroid, astronaut, space probe, space craft, Makemake, Ceres, Eris, Haumea, Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune

**Pronunciation guide:** Makemake (Ma-kay-ma-kay), Ceres (Si-rees), Haumea (Haw-mee-ah)

**Resources:** paper, pencils, crayons

Children who are reading at Purple and Gold book bands should be able to read longer and more complex sentences and tackle more challenging and less familiar vocabulary with increasing independence. They may still need support from adults to help maintain fluency and to develop understanding as ideas become more complex, and more inference and deduction is required. Guided and Independent reading opportunities can be used to develop these skills.

## **Language**

* The language used in the main text should be familiar to children reading at this level and may be read independently, but children may need help with the following:
  + the space-related vocabulary used throughout, e.g. *telescope, asteroid, astronaut, space probe, space craft*.
  + Names of less familiar dwarf planets, e.g. *Makemake, Ceres, Eris, Haumea*.
* Children may need help decoding and pronouncing the names of the planets featured. They may need to say the names aloud several times: *Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune.*
* Children may need help using the organisational devices, e.g. the contents list to find information or the picture glossary to learn the meaning of new words: *orbit, reflect, gravity.*
* Children may need help to understand the detail in the images, e.g. the relative size of the Sun and Earth on pages 8–9.
* Children may need help to combine information in the captions, images and text to make rich meaning about the more complicated concepts, e.g. orbit, gravity.
* Children will enjoy reading the jokes and turning the pages for the answers. They may need help initially to understand the word play.

## **Images**

* Look at the image of the Sun on pp8–9. Discuss how tiny Earth is in comparison with the Sun, using the image and text.
* Look closely at the pictures of the gas giants on p17. Challenge children to describe them carefully, developing their descriptive vocabulary.
* Find images of Earth and talk about what can be seen.

**Activities**

* Turn to p30. Challenge children to work with a partner to try out the quiz, before taking it home to their parents. Model how to use the contents list to locate the answers efficiently.
* Look at the glossary together and notice that it is organised alphabetically. Skim through the book looking for other words that could feature in the glossary, e.g. asteroid, astronaut.
* Draw a design for a new space rover that has features for exploring one of the other three inner planets.
* Write a diary account from an astronaut visiting Mars.

## **Questions**

* Which planets can we see from Earth?
* What is the difference between a planet and a star?
* What does the word ‘orbit’ mean?
* Why can animals and plants survive on Earth?