# **National Geographic Kids Readers: Rocks and Minerals**

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

**Reading objectives:** discuss the sequence of events in books and how items of information are related; draw on what they already know or on background information and vocabulary provided by the teacher; answer and ask questions

**Spoken language objectives:** use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas

**Curriculum links:** Science: materials and their properties; Human and physical geography: volcanoes

**Interest words:** crystal, geologist, magma, igneous rocks, sedimentary rocks, metamorphic rocks, quartz, mica, feldspar, sapphire, pegmatite, obsidian, basalt, shale, conglomerate, tectonic plate, quartzite, pumice, geode

**Pronunciation guide:** geologist (gee-ol-uh-jist), igneous (ig-nee-us, metamorphic (met-uh-mor-fick), quartz (cortz), mica (my-cuh), pegmatite (peg-muh-tite), obsidian (ob-si-dee-un), basalt (ba-zalt), quartzite (cort-zite), pumice (pu-miss), geode (gee-ode)

**Resources:** internet, digital camera, 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:
  + reading the words included in the glossary: *crystal, geologist, magma, igneous rocks, sedimentary rocks, metamorphic rocks*.
  + reading and pronouncing the less familiar vocabulary: *quartz, mica, feldspar, sapphire, pegmatite, obsidian, basalt, shale, conglomerate, tectonic plate, quartzite, pumice, geode.*
* Children may need help using the organisational devices, e.g. the contents list, to find information to answer questions.
* Children will enjoy reading the jokes and turning the pages for the answers. They may need help initially to understand the word play.
* Children may need help to develop understanding about the explanation of the rock cycle using the different pieces of information. Read the relating text and discuss how new rocks are continuously being made from old ones to support their comprehension.

## **Images**

* Look at the images of crystals on the front cover and title pages. Challenge children to describe what they can see using vivid language.
* Children will enjoy using talking about the rocks and minerals and choosing their favourites.
* Look closely at the diagram on pp12–14. To develop understanding, talk about how igneous rock is made as a volcano erupts.

**Activities**

* Become rock detectives. Take a rock walk and see how many different rocks you can find, and what they are being used for, or bring rocks and minerals from home. Touch them and describe them.
* Using a digital camera, take photographs of the different types of rocks for a display. Add labels to describe the texture of each rock.
* 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.

## **Questions**

* What is a geologist?
* Which minerals are easy to find, and which are hard to find?
* What are the three main rock groups called?
* How is igneous rock made?
* What is special about a geode?