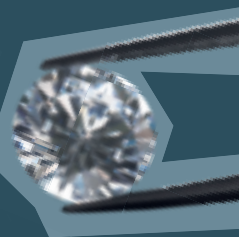


Collins



ALL ABOUT

ROCKS & MINERALS



**PACKED WITH
FASCINATING
FACTS!**



A decorative pattern of dark blue and light blue hexagons arranged in a honeycomb-like structure, located at the top of the page.

ALL ABOUT

A decorative pattern of dark blue and light blue hexagons arranged in a honeycomb-like structure, located at the bottom of the page.

ROCKS & MINERALS

Published by Collins
An imprint of HarperCollinsPublishers
1 Robroyston Gate
Glasgow
G33 1JN

HarperCollinsPublishers
Macken House, 39/40 Mayor Street Upper, Dublin 1, D01 C9W8, Ireland
collins.co.uk

First published 2026

© HarperCollinsPublishers 2026

Collins® is a registered trademark of HarperCollinsPublishers Ltd.

Text by: Laura Baker

'Ask an expert' contribution by: Ethan Baxter

Publisher: Michelle I'Anson

Project leader: Rachel Allegro

Cover and interior design: James Hunter, Rachel Allegro & QBS

Editorial: Tracey Cowell & Louise Robb

Production: Ilaria Rovera

Photo credits

All photos © Shutterstock, except: p.15(b): Everett Collection Inc / Alamy; p.34(br): Jim Laws / Alamy; p.36–37(t&b): Ethan Baxter; p.39(b): Historic Images / Alamy; p.66(br): Historical image collection by Bildagentur-online / Alamy; p.68(b): PjrRocks / Alamy; p.73(coprolite): Sabena Jane Blackbird; p.73(Anning): GL Archive / Alamy; p.74(bl): Richard Becker / Alamy; p.75(tr): Universal Images Group North America LLC / DeAgostini / Alamy

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the prior permission in writing of the publisher and copyright owners.

Without limiting the author's and publisher's exclusive rights, any unauthorised use of this publication to train generative artificial intelligence (AI) technologies is expressly prohibited. HarperCollins also exercise their rights under Article 4(3) of the Digital Single Market Directive 2019/790 and expressly reserve this publication from the text and data mining exception.

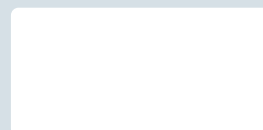
The contents of this publication are believed correct at the time of printing. Every care has been taken in the preparation of this book. However, the publisher can accept no responsibility for errors or omissions, changes in detail given or for any expense or loss thereby caused.

A catalogue record for this book is available from the British Library.

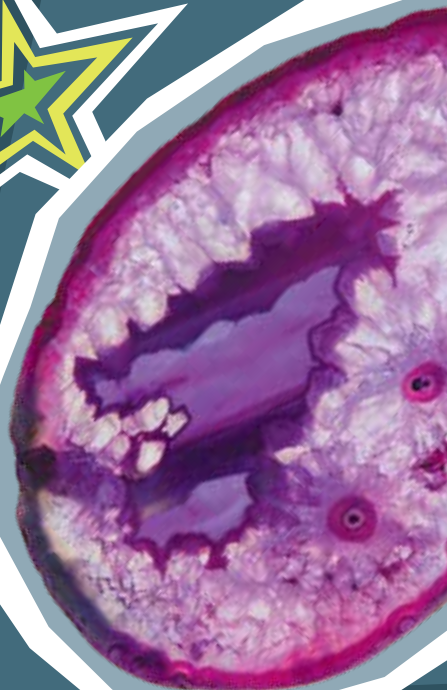
ISBN 9780008776206

Printed in India by Replika

10 9 8 7 6 5 4 3 2 1



Collins

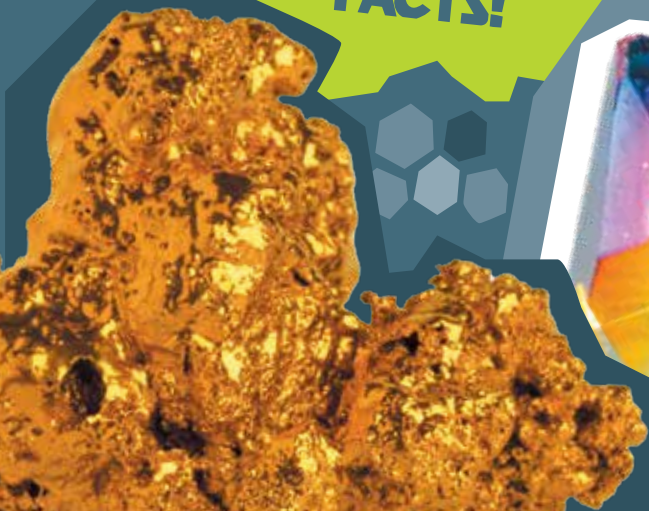


ALL ABOUT

ROCKS & MINERALS



**PACKED WITH
FASCINATING
FACTS!**



CONTENTS



What are rocks and minerals?	8
The birth of Earth	10
Our rocky planet	12
Shifting plates	14
Rocks in the past	16
Rocks in our world	18
Rocky resources	20
Super stats: Famous structures	22
Igneous rocks	24
Igneous rock samples	26

Sedimentary rocks	28
Sedimentary rock samples ..	30
Metamorphic rocks	32
Metamorphic rock samples .	34
Ask an expert about... Geochemistry	36
Name that... Rock	38
The rock cycle	40
Weathering & erosion	42
Super stats: Natural formations	44





Quiz yourself on...

Rock types	46
Metals	48
Hunting for gold	50
Crystals	52
Gemstones	54
Super stats:	
Treasured gems	56
Cutting & polishing	58
Birthstones	60
Name that... Gemstone	62
Rock & mineral properties ...	64

Scale of hardness	66
Peculiar properties	68
Hazardous minerals	70
Ancient fossils	72
Fossilised plants	74
Organic gems	76
Rocks from space	78
Rock collecting	80
Mining and more	82
Protecting rocks and minerals	84
Quiz yourself on...	
Rocks in our world	86
Answers	88
Glossary	90
Index	94





Let's rock

Rocks and minerals are the building blocks of our world. Beneath your feet are secrets from the past hidden in glittering gems, huge cliff faces and deep dark caves.



WHAT ARE ROCKS AND MINERALS?

If you look around you, you'll see rocks and minerals everywhere. But what are they exactly and what are the differences between them?

What are rocks?

A rock is a solid substance that occurs naturally. Rocks are usually made of minerals. Gneiss (say 'nice'), granite and sandstone are examples of common rocks.



Sandstone

Nice
gneiss!



Granite



ZOOM IN

Crystals of
different minerals
come together to
form granite.

Three types

Rocks are divided into three main types, depending on how they formed: igneous, metamorphic and sedimentary. Find out more about the three types of rock on pages 24 to 35.

What are minerals?

Rocks and minerals are closely related. A mineral is also a solid substance that forms naturally. However, unlike rocks, each mineral is made of crystals in a unique structure. Minerals are the building blocks of rocks. Quartz, malachite and pyrite are examples of minerals.

When it's polished, malachite shows off bands of bright green.



Quartz



ZOOM IN

Quartz crystals are usually six-sided prisms.

A living past

Some rocks are formed of organic, or living, materials. For example, coal is made of plants that lived on Earth millions of years ago! Over time, these were pressed together and hardened into rock.

Shiny gems

Gemstones are minerals that have been cut and polished to sparkle and shine. They are often used in jewellery.



So shiny!



FASCINATING FACT

Pyrite is also known as 'fool's gold' because it looks a lot like gold!

Scientists who study Earth and rocks are called geologists.

