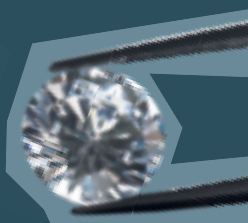
Collins







ALL ABOUT ROCKS & MINERALS



PACKED WITH FASCINATING FACTS!






ALL ABOUT
ROCKS &
MINERALS

Published by Collins
An imprint of HarperCollins*Publishers*
1 Robroyston Gate
Glasgow
G33 1JN

HarperCollins*Publishers*
Macken House, 39/40 Mayor Street Upper, Dublin 1, D01 C9W8, Ireland

collins.co.uk

First published 2026

© HarperCollins*Publishers* 2026

Collins® is a registered trademark of HarperCollins*Publishers* 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 responsiblity 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

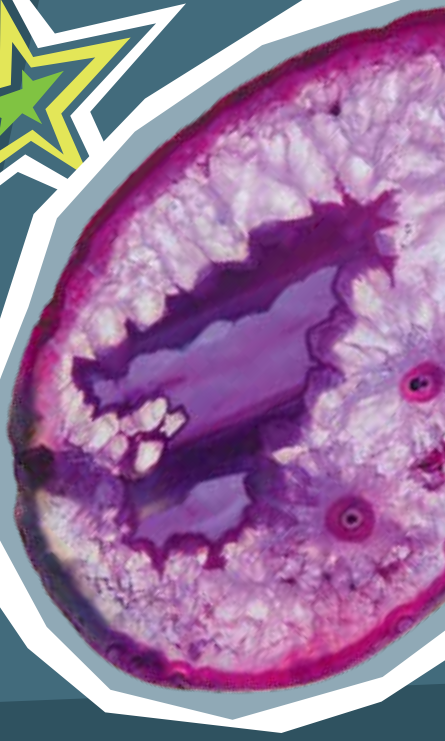
Printed in India by Replika

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.



Quartz



ZOOM IN

Quartz crystals are usually six-sided prisms.

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



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.

