## ACKNOWLEDGEMENTS

Cover photo: DreamLand Media / Shutterstock Illustrations by QBS and Ann Paganuzzi Images p8: Zern Liew/Shutterstock, Luisa Leal Photography/Shutterstock, Ksander/Shutterstock, You can more/Shutterstock; page 9: Bagiuiani/Shutterstock, Oleksandr Molotkovych/Shutterstock, Nucleartist/Shutterstock, page 38: StockLite/Shutterstock Supplementary images for download: Colin Stobart

Every effort has been made to trace copyright holders and obtain their permission for the use of copyright material. The author and publisher will gladly receive information enabling them to rectify any error or omission in subsequent editions. All facts are correct at time of going to press.

Published by Letts Educational An imprint of HarperCollinsPublishers The News Building 1 London Bridge Street London SE1 9GF

ISBN 978-0-00-821037-3

First published 2017

10 9 8 7 6 5 4 3 2 1

## © HarperCollinsPublishers Limited 2017

IGCSE is the registered trademark of Cambridge International Examinations. All exam-style questions, related example answers given on the website, marks awarded and comments that appear in this book were written by the author. In examinations, the way marks are awarded to questions and answers like these may be different.

Colin Stobart asserts his moral right to be identified as the author of this work.

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

British Library Cataloguing in Publication Data A CIP record for this book is available from the British Library.

Commissioned by Katherine Wilkinson Project managed by Kate Ellis, Sheena Shanks Edited by Helen Bleck Proofread by Louise Robb Cover design by Paul Oates Typesetting by QBS Production by Natalia Rebow, Lyndsey Rogers and Paul Harding Printed and bound in the UK



FSC<sup>™</sup> is a non-profit international organisation established to promote the responsible management of the world's forests. Products carrying the FSC label are independently certified to assure consumers that they come from forests that are managed to meet the social, economic and ecological needs of present and future generations, and other controlled sources.

Find out more about HarperCollins and the environment at www.harpercollins.co.uk/green

